2012-13 Undergraduate Curriculum Changes Report

The following report describes all undergraduate curriculum changes approved by UTSC Academic Committee in the 2012-13 Curriculum cycle.

OVERVIEW TABLES

New Programs:

No New Program proposals were submitted in this cycle

Program Closures:

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<thead>
<tr>
<th>Department</th>
<th>Program</th>
<th>Date Approved by AC</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>CMS</td>
<td>Specialist in Mathematics and Its Applications</td>
<td>December 6, 2011</td>
<td>Approved by AP&amp;P on January 10, 2012</td>
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Major Program Modifications:

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<th>Department</th>
<th>Program</th>
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<tr>
<td>CMS</td>
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<td>December 6, 2011</td>
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<tr>
<td>Humanities</td>
<td>Specialist in Art and Culture, Studio Stream</td>
<td>January 31, 2012</td>
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## Minor Program Modifications:

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<td>DPES/Social Sciences</td>
<td>Major in Environmental Studies</td>
<td>November 15, 2012</td>
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<td>Biological Sciences</td>
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<td>Note: these same changes were approved again on February 28th, 2012 (they were put through a second time because it was thought that they were not included in the January 31st Report to Academic Committee)</td>
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<td>February 28, 2012</td>
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<td>February 28, 2012</td>
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<td>Major in Public Policy</td>
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<tr>
<td>Psychology</td>
<td>Specialist in Neuroscience Major in Neuroscience</td>
<td>February 28, 2012</td>
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<td>Note: these same changes were previously approved on January 31st, 2012 (they were put through a second time because it was thought that they were not included in the January 31st Report to Academic Committee)</td>
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<td>February 28, 2012</td>
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### Course Changes:

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<th>Department/Unit and Discipline</th>
<th>Type and Description</th>
<th>Date Approved by AC</th>
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| DPES/Social Sciences – Environmental Studies  | New Courses:  
• EST B01H | November 15, 2011 |
| CTL                                  | Course Deletions:  
• CTLA19H  
• SCIB03H | December 6, 2011 |
|                                      | New Courses:  
• CTLA01H  
• CTLA02H  
• CTLB03H | |
| Social Sciences/Humanities – IDS/AFS  | New Courses:  
• IDSA02H/AFSA03H | December 6, 2011 |
| Biological Sciences - Biology       | Course Deletions:  
• BIOB30H | January 31, 2012 |
|                                      | New Courses:  
• BIOB34H  
• BIOC32H  
• BIOC39H  
• BIOD48H | |
|                                      | Course Changes:  
• BIOA01H (Exclusions)  
• BIOA02H (Exclusions)  
• BIOB11H (Exclusions)  
• BIOB32H (Co-requisites)  
• BIOC17H (Pre-requisites)  
• BIOC21H (Pre-requisites)  
• BIOC33H (Title; Pre-requisites)  
• BIOC34H (Title; Pre-requisites)  
• BIOC99H (Pre-requisites)  
• BIOD17H (Description; Pre-requisites)  
• BIOD21H (Title)  
• BIOD22H (Title)  
• BIOD25H (Enrolment Limit)  
• BIOD27H (Pre-requisites)  
• BIOD43H (Title; Enrolment Limit)  
• BIOD45H (Pre-requisites) | |
| Biological Sciences – Neuroscience  | Course Changes:  
• NROC34H (Pre-requisites) | January 31, 2012 |
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<th>Department/Unit and Discipline</th>
<th>Type and Description</th>
<th>Date Approved by AC</th>
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| Biological Sciences - Paramedicine | Course Changes:  
  • IMCB08H (Exclusions) | January 31, 2012 |
| CMS – Computer Science | Course Deletions:  
  • CSCA65H  
  • CSCC36H  
  • CSCC40H  
  • CSCC50H  
  • CSCC51H  
  • CSCD08H  
  New Courses:  
  • CSCA67H  
  • CSCB20H  
  • CSCC01H  
  • CSCC37H  
  • CSCD01H  
  • CSCD37H  
  • CSCD84H  
  Course Changes:  
  • CSCB09H (Pre-requisites)  
  • CSCB58H (Content; Description)  
  • CSCB63H (Pre-requisites)  
  • CSCC24H (Content; Description; Pre-requisites)  
  • CSCC43H (Pre-requisites)  
  • CSCC73H (Pre-requisites)  
  • CSCC85H (Title; Content; Description; Enrolment Limit)  
  • CSCD03H (Enrolment Limit)  
  • CSCD11H (Content; Description; Pre-requisites)  
  • CSCD18H (Pre-requisites) | January 31, 2012 |
| Humanities – African Studies | New Courses:  
  • AFSC30H | January 31, 2012 |
|   | Course Changes:  
  • AFSA02H (Level; Exclusions) | |
| Humanities – Art and Culture | Course Deletions:  
  • VPAC03H  
  • VPAC47H  
  • VPAC48H  
  • VPAD05H | January 31, 2012 |
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<th>Department/Unit and Discipline</th>
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<td>Humanities – Art History</td>
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<td>• IEEC21H (Description; Enrolment Limit; Exclusions; Pre-requisites; Co-requisites)</td>
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<td>• MDSB06H</td>
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<td>• SOCD50H</td>
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<td>• IEEB01H (existing) with MDSB01H (new)</td>
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Undergraduate Curriculum Changes Approved by Governance. 30 March 2012.

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**Other Changes:**

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<td>Humanities - IEE</td>
<td>Motion to suspend new enrolments in the Major in IEE</td>
<td>15 November 2011</td>
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CURRICULUM CHANGES: DETAIL REPORT

1. PROGRAM CLOSURES

DEPARTMENT OF COMPUTER AND MATHEMATICAL SCIENCES

Specialist in Mathematics and Its Applications

1. Brief Summary:

The Specialist Program in Mathematics and Its Applications is being closed, although three of its streams (Teaching, Statistics and Design-Your-Own) will continue as streams of the reorganized Specialist Program in Mathematics.

2. Academic Rationale:

Background:
The Specialist Program in Mathematics and its Applications was created in 1999-2000 or 2000-2001. Two of its streams (Statistics and Teaching) have been reasonably successful in attracting students on a sustained basis. The Computational Physical Sciences, Computer Science, and Design-your-own streams have been less successful in that regard (see table with enrolment figures below).

The more popular streams of the program will continue as streams of the restructured Specialist Program in Mathematics (see Major Modification Proposal form for that program). The program requirements for the continuing streams are slightly adjusted to make them more consistent with those of other streams of the restructured Specialist Program, allowing easier transfer between streams and clearer understanding of the purpose of the different streams. The special Design-your-own stream is also continuing for reasons explained below.

What has led to the decision to close the program?:
The desire to streamline, rationalize, and simplify the various options for mathematics specialist programs.

Academic rationale:
The present structure of the mathematics specialist programs is somewhat haphazard, and confusing to students. The programs' requirements have pedagogically unsound inconsistencies reflecting their legacies.

Under the proposed new structure, the two present programs will be amalgamated into a single specialist program with multiple streams. This structure will better reveal the commonalities and differences between the different program options, making their purpose clearer to students. In the revised program we have also eliminated the unnecessary inconsistencies between programs that exist at present, thereby enhancing the ability of students' to switch between program streams as their interests in mathematics and their career objectives develop.
In this process of program clarification and consolidation, we will eliminate two streams of the present Specialist Program in Mathematics and its Applications: Computational Physical Sciences, and Mathematics and Computer Science. These are streams that have attracted few students (see table below for historical enrolments in all mathematics specialist programs); furthermore, students who are interested in pursuing studies along the lines of these programs can do so in two ways: either through the Design-your-own stream of the proposed specialist program or by suitable double-major combinations (Mathematics and Physics, or Mathematics and Computer Science, respectively).

The Design-your-own stream of the Specialist Program in Mathematics and its Applications is not being eliminated, even though historically it also has had low enrolments. This is partly for the reason just mentioned and partly in recognition of the fact that some of those few students who have completed this program have been exceptionally strong ones with unusual interests. This is certainly a group of students that we want to continue to serve despite its small size. We note that the Design-your-own stream has no special resource implications: all its required courses are also required for other mathematics programs.

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Figures include both coop and non-coop.

Alignment with the unit’s academic plan:
The academic plan is not affected, as there are no resource implications
3. Student Accommodation:

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<tr>
<th>Undergraduate</th>
<th>Year one</th>
<th>Year two</th>
<th>Year three</th>
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<td>Math &amp; App – Teaching</td>
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Students will be allowed to complete their program, and there is no deadline by which the program must be completed. Inactive students can reactivate to an appropriate stream of the Specialist in Mathematics. They will be notified of the change via the Calendar, and the Department will also organise meetings to announce the changes to our programs to our students during Fall 2011. The proposed closure is not expected to have any impact on the range of academic options available to students in the future.

4. Faculty / Staff Accommodation:

The closure will have no impact on faculty or staff.
2. MAJOR PROGRAM MODIFICATIONS

DEPARTMENT OF COMPUTER AND MATHEMATICAL SCIENCES

Specialist in Mathematics

1. Executive Summary:

At present we have two specialist programs in the area of mathematics: the Specialist Program in Mathematics, and the Specialist Program in Mathematics and its Applications. The latter has five streams. Under this proposal we will reorganise all these programs into a single specialist program with four streams.

Specifically, the Specialist Program in Mathematics and its Applications is being eliminated (a separate form is submitted for that action). Three of its streams, Teaching, Statistics and Design-your-own are being reclassified as three of the streams of the new Specialist Program in Mathematics which will now have four streams: Comprehensive (which is similar to the existing Specialist Program in Mathematics) and the above three streams of the current Specialist program in Mathematics and its Applications.

Two streams of the present Specialist Program in Mathematics and its Applications (Computational Physical Sciences and Computer Science) are being eliminated. This is because very few students select these options, and those who wish to can be accommodated by the Design-your-own option or by suitable double-major combinations.

2. Academic Rationale:

The present structure of the mathematics specialist programs is somewhat haphazard, and confusing to students. The programs' requirements have pedagogically unsound inconsistencies reflecting their legacies.

Under the proposed new structure (outlined in Section 2.1 of this form), the two present programs will be amalgamated into a single specialist program with multiple streams. This structure will better reveal the commonalities and differences between the different program options, making their purpose clearer to students. In the revised program we have also eliminated the unnecessary inconsistencies between programs that exist at present, thereby enhancing the ability of students to switch between program streams as their interests in mathematics and their career objectives develop and solidify.

In this process of program clarification and consolidation, we will eliminate two streams of the present Specialist Program in Mathematics and its Applications: Computational Physical Sciences, and Mathematics and Computer Science. These are streams that have attracted few students (see table below for historical enrolments in all mathematics specialist programs); furthermore, students who are interested in pursuing studies along the lines of these programs can do so in two ways: either through the Design-your-own stream of the proposed specialist program or by suitable double-major combinations (Mathematics and Physics, or Mathematics...
and Computer Science, respectively).

The Design-your-own stream of the Specialist Program in Mathematics and its Applications is not being eliminated, even though historically it also has had low enrolments. This is partly for the reason just mentioned and partly in recognition of the fact that some of those few students who have completed this program have been exceptionally strong ones with unusual interests. This is certainly a group of students that we want to continue to serve despite its small size. We note that the Design-your-own stream has no special resource implications: all its required courses are also required for other mathematics programs.

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*Figures include both coop and non-coop.*

3. **Description of the Proposed Major Modification(s):**

Other than the reorganisation of the various specialist programs in mathematics and their streams into a single program explained in Section 2-1 above, minor adjustments have been made to the content of the programs to remedy some problems with the current descriptions: we streamlined and unified the computer programming requirements for all streams of the new program, rationalised the various lists of electives, and designed the program to take better advantage of the entire of courses currently available.

In more detail, the Comprehensive stream of the proposed program differs from the present Specialist Program in Mathematics in the following respects:

1. The overall number of required credits was increased from 13 to 13.5 FCEs to enable the desired changes.
2. The computer science requirement was changed from CSCA48 and one of CSCB07 or CSCB36 to CSCA08 and CSCA48. (The old requirement had a hidden prerequisite of CSCA08 for CSCA48.)
3. MATC37 (Introduction to Real Analysis) was made a required course, to reflect the fact that this stream is the recommended one for students wishing to pursue graduate studies (this course being invaluable for that particular career choice). In the current program, this course is an option in a list of electives.

4. The requirement of one of CSCD03 (Social Impact of Information Technology) or PSCD02 (Current Questions in Mathematics and Science) was eliminated. This was partly because of practical considerations (as the computer science enrolments increase we are unable to accommodate non-Computer Science students in this course, and PSCD02 is a course managed by a different department and it did not seem appropriate to rely exclusively on a course that we don’t fully control), and partly because the new breadth requirement that was introduced a few years ago makes the inclusion of a course of this nature in this program less imperative.

5. We clarified the role of various categories of electives in the list of requirements.

The Statistics, Teaching, and Design-your-own streams of the proposed program differ from the corresponding streams of the Specialist Program in Mathematics and its Applications (that we propose to eliminate) in the following respects:

1. The overall number of required credits was decreased from 13 to 12.5 FCEs.
2. The computer science requirement was changed from CSCA48 or PCSB57 to CSCA08. This was done, (a) to eliminate the hidden prerequisite of A48 as discussed above, and (b) to unify the basic computer science requirement across all streams to allow easier switching between streams.
3. The requirement of one of CSCD03 or PSCD02 was eliminated for the reasons discussed above.
4. We clarified the role of various categories of electives in the list of requirements.

There are no requirements that differ substantially from those existing at the time of the previous cyclical program review, and no significant changes to learning outcomes. There are no significant changes to the faculty engaged in delivering the program, and/or to essential physical resources as may occur, for example, where there have been changes to the existing mode of delivery (e.g. different campus, on-line delivery, inter-institutional collaboration).

4. Requirements:

Proposed Program Requirements and Calendar copy:

This program provides the student a sound foundation in the main areas of mathematics, and some exposure to computer programming and statistics. It comprises four streams: Comprehensive, Statistics, Teaching, and Design-Your-Own, each serving a more specific goal.

- The Comprehensive stream provides a broad and deep knowledge of mathematics at the undergraduate level. It is the recommended program for students who plan to pursue graduate studies in mathematics, but it is also suitable for other career paths.
- The Statistics stream provides greater exposure to statistics, and the areas of mathematics most closely associated with it. This stream prepares students for careers in industry, or for graduate study in certain mathematically-oriented subjects, including statistics and financial mathematics.
• The Teaching stream is intended for students with a serious interest in mathematics but whose career objectives lie in mathematics education at the elementary or secondary level.

• The Design-Your-Own stream allows students to tailor their studies in mathematics to specific interests, with guidance from (and the approval of) the program's supervisor.

The program requirements consist of a core of 14 courses (7 credits), common to all four streams, and additional requirements that depend on the stream, for a total of 25-27 courses (12.5-13.5 credits).

The structure of the programs allows for easy switching between streams until relatively late. Consequently, these programs should not be viewed as rigidly separated channels feeding students to different career paths, but as a flexible structure that provides to students guidance in their course selection based on their broad (but possibly fluid) interests.

CORE (7 credits)

1. Writing Requirement (0.5 credit)
   one of: ANTA01, ANTA02, (CLAA02), ENGA10, ENGA11, ENGB06, ENGB07, ENGB08, ENGB09, ENGB17, ENGB19, ENGB50, ENGB51H3, GGRA02, GGRA03, GGRB05, (GGRB06), (HISA01), HLTA01, (HUMA11), (HUMA17), (HUMA19), (LGGA99), LINA01, PHLA10, PHLA11, WSTA01. (*)
   (*) It is recommended that this requirement be satisfied by the end of the second year

2. A-level courses (2 credits)
   MATA23 Linear Algebra I
   MATA31 Calculus I for Mathematical Sciences
   MATA37 Calculus II for Mathematical Sciences
   CSCA08 Introduction to Computer Programming

3. B-level courses (3.5 credits)
   MATB24 Linear Algebra II
   MATB41 Techniques of the Calculus of Several Variables I
   MATB42 Techniques of the Calculus of Several Variables II
   MATB43 Introduction to Analysis
   MATB44 Differential Equations I
   STAB52 Introduction to Probability (**)  
   STAB57 Introduction to Statistics (**)  
   (**) This course may be taken after second year, except for the Statistics stream

4. C-level courses (1 credit)
   MATC01 Groups and Symmetry
   MATC34 Complex Variables

COMPREHENSIVE STREAM
This stream requires a total of 27 courses (13.5 credits).

In addition to the core requirements 1-4 common to all streams, 13 other distinct courses must
be chosen satisfying all of the following requirements:

5. Elementary courses in closely related disciplines (1.5 credits): (***)
   CSCA48 Introduction to Computer Science
   PHYA10 Introduction to Physics IA
   PHYA21 Introduction to Physics IIA
   (*** It is recommended that these be taken in first year.

6. Additional courses in analysis and algebra (1.5 credits):
   MATC37 Introduction to Real Analysis
   MATC46 Differential Equations II
   MATD01 Fields and Groups

7. Courses in key areas of mathematics (1.5 credits):
   **three of:**
   - MATC15 Introduction to Number Theory
   - MATC27 Introduction to Topology
   - MATD02 Classical Plane Geometries and their Transformations
   - MATD34 Complex Variables II

8. Mathematics of computation (0.5 credit):
   **one of:**
   - MATC09 Introduction to Mathematical Logic
   - MATC32 Graph Theory and Algorithms for its Applications
   - MATC44 Introduction to Combinatorics
   - CSCC37 Numerical Methods
   - CSCC63 Computability and Complexity

9. Electives (1.5 credits):
   **three of:**
   - C- or D-level MAT courses, excluding MATC82 and MATC90

STATISTICS STREAM
This stream requires a total of 25 courses (12.5 credits).

In addition to the core requirements 1-4 common to all streams, 11 other distinct courses must be chosen satisfying all of the following requirements (in choosing courses to satisfy requirements 7-9, students must select at least one D-level course):

5. Algebra and analysis (1.5 credits):
   - MATB61 Linear Programming and Optimization
   - MATC46 Differential Equations II
   - MATD01 Fields and Groups

6. Regression analysis (0.5 credit):
   - STAC67 Regression Analysis
7. Discrete mathematics and geometry (0.5 credit):
one of:
   MATC32 Graph Theory and Algorithms for its Applications
   MATC44 Introduction to Combinatorics
   MATD02 Classical Plane Geometries and their Transformations

8. Upper-level MAT electives (1 credit):
two of:
   any C- or D- level MAT courses (†)
(†) For students wishing to pursue graduate studies in Mathematics or Statistics it is recommended that
   MATC37 be chosen as one of these two courses

9. Upper-level STA electives (2 credits):
four of:
   ACTB47 Introductory Life Contingencies
   any C- or D-level STA courses, excluding STAD29

TEACHING STREAM
This stream requires a total of 25 courses (12.5 credits).

In addition to the core requirements 1-4 common to all streams, 11 other distinct courses must be chosen satisfying all of the following requirements:

5. Algebra, analysis, and geometry (2 credits):
   MATC15 Introduction to Number Theory
   MATC82 Mathematics for Teachers
   MATD01 Fields and Groups
   MATD02 Classical Plane Geometries and their Transformations

6. Discrete mathematics (0.5 credit):
one of:
   MATC32 Graph Theory and Algorithms for its Applications
   MATC44 Introduction to Combinatorics

7. MAT electives (1.5 credits):
three of:
   C- or D-level MAT courses

8. MAT/STA/CSC electives (1.5 credits):
three of:
   C- or D-level MAT, STA, or CSC courses, excluding STAD29

DESIGN-YOUR-OWN STREAM
This stream requires a total of 25 courses (12.5 credits).

In addition to the core requirements 1-4 common to all streams, 11 other distinct courses must be chosen satisfying the following requirement:
5. Electives (5.5 credits):
11 courses approved by the program supervisor. The core courses together with the approved electives must satisfy the degree requirement that they include at least 12 courses (6 credits) at the C- or D-level, of which at least two (one credit) are at the D-level.

5. Impact of the Change on Students:

There will be no impact on students. Course offerings are not changing. Existing students can either complete their current programs or switch to the appropriate stream of the proposed program.

6. Resources:

There is no impact on resources, including faculty complement, T.A. support needs, space, libraries and enrolment/admissions.

DEPARTMENT OF HUMANITIES

Specialist in Art and Culture, Studio stream

1. Executive Summary:

The primary fault in the existing programme is that it does not require specialization in the stream area beyond the requirements of the Major Program in Studio. This is remedied by the addition of further studio courses.

In addition, the slightly haphazard selection of other VPA courses in the existing programme is given focus by requiring a substantial engagement with art history. The current courses designated as ‘core’ were designed to introduce an element of interdisciplinarity into all streams. This aim is better served by a more focused selection of courses relevant to the particular stream – in this case art history, media studies and Intersections, Exchanges, Encounters in the Humanities (IEE).

2. Academic Rationale:

The most recent review of the current programme pointed out, in effect, that the Specialist programme is not a specialist in anything. The proposed changes rectify this by providing the opportunity for students to extend and deepen their engagement in a single area. [It is assumed that other disciplines will follow the broad outlines of this model if and when they have the necessary resources and demand. We have retained the name of the program – Specialist in Art and Culture – to allow for this contingency] At the same time the ideal of interdisciplinarity is met, much more logically by focusing students’ work in the related areas of art history, media studies and IEE.
3. Description of the Proposed Major Modification(s):

The current program has two basic components:
1) the Major in Studio plus an additional 3.0 credits from studio
2) a multidisciplinary component consisting of a core of 3.5 multidisciplinary required courses, 2.0 credits from one of the other VPA disciplines and 1.0 credit from either studio or another VPA discipline.

The proposed programme:
1. Retains the courses used in the Major.
2. Adds an existing introduction to Media Studies course (MDSA01H) and a new course called Experiencing Visual and Contemporary Arts: Presentation and Practices I (VPSB73H).
3. Increases the studio component from 3.0 credits to 6.0 credits.
4. Removes the current multi-disciplinary component, and replaces it with a substantial (3.0 credits) group of art history courses and a carefully chosen selection of courses from media studies and IEE, all supplying depth and breadth to the principal area of specialization (studio).

In effect, these changes greatly strengthen the studio component and give coherence and added relevance to the multi-disciplinary component. It should be emphasized that the media studies (MDS) and IEE courses listed under Requirement 5 are carefully chosen to be of particular significance to visual art students. In the event that IEE courses become unavailable, this Requirement will contain only the MDS courses listed and MDSB02H [Language and Media] will be added.

The most significant outcome of these changes will be that students will have a much broader and deeper exposure to work in their area of specialization, and this will be backed up by more carefully directed studies in highly relevant cognate disciplines. With a much stronger portfolio and a solid background in art history students will be much better prepared for graduate studies.

All of the courses required for this program, with the exception of VPSB73, are already in the calendar and given on a regular basis. VPSB73 is a new course that will be introduced in 2012-13 and taught by a regular faculty member. The limiting factor will be the same as for all studio programs, that of space.

5. Requirements:

Current requirements and Calendar copy:
The Specialist in Art and Culture (Studio) requires 14.5 credits, including 4.0 credits at the C- or D- level of which at least 1.0 must be at the D-level as follows:
1. The Major Program in Studio
   VPSA62H3 Foundation Studies in Studio
   VPSA63H3 But Why Is It Art? HUMA01H3 Exploring Key Questions in Humanities
   VPHA46H3 Ways of Seeing: Introduction to Art Histories VPSA70H3 Drawing I
   VPSB74H3 Drawing II
   At least one-half credit from:
Undergraduate Curriculum Changes Approved by Governance. 30 March 2012.

An additional half credit at the C-level and one full credit at the D-level.

3.0 additional credits from courses in VPS. Students may substitute one full credit from VPA or another discipline with the PRIOR written permission of the Program Supervisor.

plus

Two full credits at the A- and/or B-level in Visual and Performing Arts from areas outside of the Studio Major.

2. Core courses required for all streams:

- **HUMA02H3** Inquiry and Reasoning in the Humanities
- **VPAA06H3** Visual and Performing Arts in the Digital Age
- **VPAB05H3** Introduction to Contemporary Cultural Theory
- **VPAC03H3** Intermediate Seminar
- **VPAC47H3** The Body in Modernity: Theories and Representations
- **VPAC48H3** The Body in Contemporary Culture: Theories and Representations
- **VPAD05H3** Senior Project

At least 1 additional full credit at the B-, C- or D-level from the Visual & Performing Arts or another appropriate discipline, chosen in consultation with the Program Director.

Proposed requirements and Calendar copy:

Enrolment to the Specialist in Art and Culture (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.

The Specialist in Art and Culture (Studio) requires 14 full credits, including 4 full credits at the C or D level of which at least 1.0 must be at the D level.

1. (3.5 credits)

- **HUMA01H** Exploring Key Questions in the Humanities
- **MDSA01H** Introduction to Media Studies
- **VPSA62H** Foundation Studies in Studio
- **VPSA63H** But Why is it Art?
- **VPSA70H** Drawing I
- **VPSB73H** Experiencing Visual and Contemporary Arts: Presentation and Practices I
- **VPSB74H** Drawing II

2. (0.5 credit)

One of the following:

- **VPSC66H** Theory and Practice: Two-Dimensional Work
- **VPSC68H** Theory and Practice: Time-Based Work
- **VPSC69H** Theory and Practice: Art in a Globalizing World
- **VPSC70H** Theory and Practice: New Media in Studio
3. (6 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 credits)
VPHA46H 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 credit)
1.0 credit from the following:
IIEB02H Senses, Sensibility, Sensuality
IIEB03H Time, Story, Perspective
IIEC01H Theories and Methods in the Study of Society and Culture
IIEC03H History of Animals and People
MDSA02H From Print to Digital: History of Media and Technology
MDSB05H Media and Globalization
MDSB61H Critical Approaches To Digital Media
MDSB62H Visual Culture

Note about requirement 3 of the proposed program: “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”:
The non-structuring of this requirement is deliberate. Students specialize in various media streams (i.e. Photo and/or Video or Painting/Drawing and it is better that they not be restricted. C and D level courses are relatively few in number, so all students will all take similar courses (i.e. there are Theory and Practice courses in various media streams (C level) and project based seminar courses at the D level in various media streams.

6. Impact of the Change on Students:
Students who are enrolled in the current programme can meet all requirements. In the core area, the few existing courses that are being withdrawn can be covered satisfactorily with course substitutions.

7. Resources:
There will be no impact on faculty complement, T.A. support needs or libraries. Space needs include additional studio space as enrolment increases in this programme. Regarding enrolment: there are 26 students in the current program. The best assessment of present capacity is, that with certain adjustments, 40 specialist students can be accommodated. This number assumes 1) that the number of sections of A level courses offered might be reduced, 2) that improved counseling of all students, and perhaps the introduction of some screening processes, will ensure that we identify and support the best students, and 3) that a number of students currently in the major program will transfer to the specialist program. In other words, the total number of students enrolled in studio programs will remain at approximately the current figure, but will be distributed differently and with resources concentrated more effectively on the most promising students.
3. MINOR PROGRAM MODIFICATIONS

DEPARTMENT OF BIOLOGICAL SCIENCES

Specialist (Joint) in Applied Microbiology

Overview of Changes:
• Add BIOB34H as an alternate to BIOB30H under “B. Complementary Elective Courses”. In other words, students will either take BIOB30H (which is being deleted but current students will have completed) or BIOB34 (which students will take from now on).
• Add the new course BIOC39H3 (Immunology) to the bin of options “B. Complementary Elective Courses”.

Proposed Program Requirements:
Required Courses and Suggested Course Sequence
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 in Chemistry
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit in Mathematics
MATA30H3 & MATA35H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences

0.5 Credit in Statistics or Computer Science
Choose from:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology
CSCA08H3 Introduction to Computer Programming
CSCA20H3 Computer Science for the Sciences
PSCB57H3 Introduction to Scientific Computing

Second Year
2.0 Credits of Biology Core Courses and Lab
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB50H3 Ecology

1.0 Credit of Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
1.5 Credits of Industrial Microbiology Courses at Centennial

*IMCB01H3 Microbiology Basics
*IMCB02H3 Microbial Techniques
*IMCB03H3 Lab Instrumentation

Third Year

2.0 Credits of core Biology/Microbiology Courses

BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC15H3 Genetics
BIOC17H3 Microbiology: The Bacterial Cell
EESC30H3 Microbial Biogeochemistry

3.0 Credits of Industrial Microbiology Courses at Centennial

*IMCB04H3 Food Microbiology
*IMCB05H3 Microbiology Project
*STEB07H3 Analytical Chemistry and Applications
*IMCB06H3 Pharmaceutical Microbiology
*IMCB07H3 Food Chemistry
*IMCB08H3 Biochemistry and Applications I

Fourth Year

1.0 Credit of Advanced D-level Biology courses

Choose from:
BIOD17H3 Seminars in Cellular Microbiology
BIOD21H3 Molecular Biology Laboratory I: Host, Vectors and Cloning
BIOD22H3 Molecular Biology Laboratory II: Nucleic Acids and Proteins
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD29H3 Pathobiology of Human Disease
EESD15H3 Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments

2.0 Credits of Industrial Microbiology Courses at Centennial

IMCC01H3 Advanced Microbiology Project
IMCC02H3 Microbial Genetics
IMCC03H3 Biochemistry and Applications II
IMCC04H3 Environmental Microbiology

B. Complementary Elective Courses (optional)

When selecting electives, students may wish to consider the following courses that may be complementary to their program:
HLTA01H3 Plaques and Peoples
HLTA10H3 Introduction to Research in Health Studies
HLTB04H3 Health and the Urban Environment
HLTC03H3 Politics of Canadian Health Studies
(BIOB30H3) Mammalian Physiology I or BIOB34H3 Animal Physiology
BIOB31H3 Plant Physiology
Specialist in Biodiversity, Ecology & Evolution

Overview of Changes:

- Add BIOB34H as an alternate to BIOB30H under “3.0 Credits of Biology Core Courses”. In other words, students will either take BIOB30H (which is being deleted but current students will have completed) or BIOB34H (which students will take from now on).
- Add BIOD48H (Ornithology and Herpetology), to “Bin 2: C- & D-level Organismal Biology Courses”.

Proposed Program 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 II: Reactions and Mechanisms

1.0 Credit in Mathematics
- MATA30H3 & MATA35H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences

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

0.5 Credit in Computer Science
Choose from:
- CSCA08H3 Introduction to Computer Programming
- CSCA20H3 Computer Science for the Sciences
- PSCB57H3 Introduction to Scientific Computing (this course could also be taken in second year)

Second Year

3.0 Credits of Biology Core Courses
- BIOB10H3 Cell Biology

*BIOB51H3 Evolution
*BIOC39H3 Immunology
*BIOC65H3 Environmental Toxicology

* a minimum of 60% is required in courses marked with an asterisk in order to maintain standing in the program.
**BIOB11H3** Molecular Aspects of Cellular and Genetic Processes

*(BIOB30H3)* Mammalian Physiology I or **BIOB34H3** Animal Physiology

**BIOB31H3** Plant Physiology

**BIOB50H3** Ecology

**BIOB51H3** Evolutionary Biology

**0.5 Credit of Biology Core Labs**

**BIOB52H3** Ecology and Evolutionary Biology Laboratory

**0.5 Credit in Statistics**

Choose from:

**STAB22H3** Statistics I

**PSYB07H3** Data Analysis in Psychology

**Third Year**

**2.0 Credits of C-level Ecology and Evolution Foundation Courses**

**BIOC16H3** Evolutionary Genetics and Genomics

**BIOC50H3** Macroevolution

**BIOC59H3** Advanced Population Ecology

**BIOC61H3** Community Ecology and Environmental Biology

**Third/Fourth Year**

4.5 credits of C- & D-level courses from Bins 1 and 2 below. This must include at least one credit from each bin and at least one credit total at the D-level.

**Bin 1: C- & D-level Ecology and Evolution Courses**

Choose from:

**BIOC51H3** Tropical Biodiversity Field Course

**BIOC52H3** Ecology Field Course

**BIOC58H3** Biological Consequences of Global Change

**BIOC63H3** Conservation Biology

**BIOC65H3** Environmental Toxicology

**BIOC67H3** Inter-University Biology Field Course

**BIOD25H3** Genomics

**BIOD52H3** Special Topics in Biodiversity and Systematics

**BIOD60H3** Spatial Ecology

**BIOD62H3** Species and Speciation

**BIOD66H3** Causes & Consequences of Biodiversity

**EESC04H3** Biodiversity and Biogeography

**Bin 2: C- & D-level Organismal Biology Courses**

Choose from:

**BIOC37H3** Comparative Plant Form and Function

**BIOC38H3** Plants and Society

**BIOC54H3** Animal Behaviour

**BIOC62H3** Role of Zoos in Conservation

**BIOD26H3** Fungal Biology & Pathogenesis

**BIOD33H3** Comparative Animal Physiology
**B. Senior Research Courses (optional)**

Students interested in graduate research are encouraged to take one or more of the independent research courses offered in Biological Sciences as part of their degree.

- **BIOD95H3** Supervised Study in Biology
- **BIOD98Y3** Directed Research in Biology
- **BIOD99Y3** Directed Research in Biology

**C. Complementary Elective Courses (optional)**

This list of courses from other departments complements a degree in Biodiversity, Ecology and Evolution and hence students may want to consider these courses as potential electives. Please note that some of these courses require prerequisites not included in this program. Students are not required to take any of these courses; they are provided for guidance only.

- **EESA06H3** Introduction to Planet Earth
- **EESA10H3** Human Health and the Environment
- **EESB16H3** Feeding Humans - The Cost to the Planet
- **EESD15H3** Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments
- **GGRA02H3** The Geography of Global Processes
- **GGRA30H3** Geographic Information Systems (GIS) and Empirical Reasoning
- **GGRB20H3** Environmental Conservation and Sustainable Development
- **NROB60H3** Neuroanatomy Laboratory
- **NROC34H3** Neuroethology
- **NROC61H3** Learning and Motivation
- **NROC64H3** Sensory and Motor Systems
- **PSYA01H3** Introductory Psychology: Part I
- **PSYA02H3** Introductory Psychology: Part II
- **PSYB45H3** Behaviour Modification: Origins and Applications
- **PSYB64H3** An Introduction to Physiological Psychology

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**Major in Biodiversity, Ecology & Evolution**

*Overview of Changes:*

- Add **BIOB34H** as an alternate to **BIOB30H** under “3.0 Credits of Biology Core Courses”. In other words, students will either take **BIOB30H** (which is being deleted but current students will have completed) or **BIOB34H** (which students will take from now on).
- Add **BIOD48H** (Ornithology and Herpetology), to a bin of options “0.5 Credit of D-level Courses”.

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Proposed Program Requirements:

First Year

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

1.0 Credit in Chemistry
- CHMA10H3 Introductory Chemistry I: Structure and Bonding
- CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

0.5 Credit in Mathematics or Statistics
Choose from:
- MATA30H3 Calculus I for Biological and Physical Sciences
- STAB22H3 Statistics I
- PSYB07H3 Data Analysis in Psychology

Second Year

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

0.5 Credit of the Ecology & Evolution Core Lab
- BIOB52H3 Ecology and Evolutionary Biology Laboratory

Third Year

1.0 Credit of Ecology & Evolution Foundation Courses
Choose from:
- BIOC16H3 Evolutionary Genetics and Genomics
- BIOC50H3 Macroevolution
- BIOC59H3 Advanced Population Ecology
- BIOC61H3 Community Ecology and Environmental Biology

1.0 Credit of Other C-level Courses
Choose from:
- BIOC37H3 Comparative Plant Form and Function
- BIOC38H3 Plants and Society
- BIOC51H3 Tropical Biodiversity Field Course
- BIOC52H3 Ecology Field Course
- BIOC54H3 Animal Behaviour
- BIOC58H3 Biological Consequences of Global Change
- BIOC62H3 Role of Zoos in Conservation
- BIOC63H3 Conservation Biology
Overview of Changes:

- Add BIOB34H as an alternate to BIOB30H under “3.0 Credits of Biology Core Courses”. In other words, students will either take BIOB30H (which is being deleted but current students will have completed) or BIOB34H (which students will take from now on).

Major in Biology

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

1.0 Credit in Chemistry
- CHMA10H3 Introductory Chemistry I: Structure and Bonding
- CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

0.5 Credit in Mathematics or Statistics
Choose from:
- MATA30H3 Calculus I for Biological and Physical Sciences
- 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
(BIOB30H3)  Mammalian Physiology I or BIOB34H3  Animal Physiology
BIOB31H3  Plant Physiology
BIOB50H3  Ecology
BIOB51H3  Evolutionary Biology

0.5 Credit of Biology Core Labs
Choose from:
BIOB12H3  Cell and Molecular Biology Laboratory
BIOB32H3  Animal Physiology Laboratory
BIOB33H3  Human Development and Anatomy Laboratory
BIOB52H3  Ecology and Evolutionary Biology Laboratory

Third Year

1.5 Credits of Additional C-level Biology Courses
Choose from:
Any BIO C-level courses offered by the department.
Note that NROC34H3 (Neuroethology), EESC04H3 (Biodiversity and Biogeography) and EESC30H3 (Microbial Biogeochemistry) may also be used toward fulfilling this requirement.

Fourth Year

0.5 Credit of Additional D-Level Biology Courses
Choose from:
Any BIO D-level courses offered by the department. Note that this includes the Biology Supervised Studies and Directed Research courses (BIOD95H3, BIOD98Y3 & BIOD99Y3).

Specialist in Human Biology

Overview of Changes:
• Add BIOB34H as an alternate to BIOB30H under “3.0 Credits of Biology Core Courses”.
  In other words, students will either take BIOB30H (which is being deleted but current students will have completed) or BIOB34H (which students will take from now on).
• Add BIOC32H3 (Human Physiology I) and BIOC39H3 (Immunology) to a bin of options “3.5 Credits of C-level Biology Courses”.

Proposed Program 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 II: Reactions and Mechanisms

1.0 Credit of Mathematics
MATA30H3 & MATA35H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences

1.0 Credit of Introductory Physics Courses
PHYA11H3 Introduction to Physics IB
PHYA22H3 Introduction to Physics IIB

1.0 Credit of Introductory Psychology Courses
PSYA01H3 Introductory Psychology: Part I
PSYA02H3 Introductory Psychology: Part II

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

1.0 Credit of Biology Core Labs
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy Laboratory

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

Third/Fourth Years
3.5 Credits of C-level Biology Courses
Choose From:
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC14H3 Genes, Environment and Behaviour
BIOC15H3 Genetics
BIOC16H3 Evolutionary Genetics and Genomics
BIOC17H3 Microbiology: The Bacterial Cell
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
(BGYC22H3) Vertebrate Histology: Organs
BIOC32H3 Human Physiology I
**BIOC33H3** Mammalian Physiology II: Lecture and Laboratory
**BIOC39H3** Immunology
**BIOC58H3** Biological Consequences of Global Change
**BIOC65H3** Environmental Toxicology

**1.0 Credit of D-level Biology Courses**
Choose From:
- **BIOD17H3** Seminars in Cellular Microbiology
- **BIOD19H3** Epigenetics in Health and Disease
- **BIOD26H3** Fungal Biology and Pathogenesis
- **BIOD27H3** Molecular Endocrinology
- **BIOD29H3** Pathobiology of Human Disease
- **BIOD33H3** Comparative Animal Physiology
- **BIOD43H3** Exercise Physiology
- **BIOD65H3** Pathologies of the Nervous System

**0.5 Credit in Statistics**
Choose From:
- **STAB22H3** Statistics I
- **PSYB07H3** Data Analysis in Psychology

**0.5 Credit in Psychology**
Choose From: Any B-, C- or D- Level Psychology Course

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**Major in Human Biology**

**Overview of Changes:**
- Add **BIOB34H** as an alternate to **BIOB30H** under “2.5 Credits of Biology Core Courses”. In other words, students will either take **BIOB30H** (which is being deleted but current students will have completed) or **BIOB34H** (which students will take from now on).
- Add **BIOC32H** (Human Physiology I) to the bin of options under “1.5 Credits of Additional C-level Courses”.

**Proposed Program Requirements:**

**First Year**

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

**1.0 Credit in Chemistry Introductory Courses**
- **CHMA10H3** Introductory Chemistry I: Structure and Bonding
- **CHMA11H3** Introductory Chemistry II: Reactions and Mechanisms

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2012-13 Undergraduate Curriculum Changes Approved by Governance. 30 March 2012.
1.0 Credit in Introductory Psychology Courses
PSYA01H3 Introductory Psychology: Part I
PSYA02H3 Introductory Psychology: Part II

0.5 Credit in Calculus or Statistics
Choose From:
MATA30H3 Calculus I for Biological and Physical Sciences
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year

2.5 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
(BIOB30H3) Mammalian Physiology I or BIOB34H3 Animal Physiology
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

0.5 Credit in a Biology Core Lab
BIOB33H3 Human Development and Anatomy

Third/Fourth Years

1.5 Credits of Additional C-Level Courses
Choose From:
BIOC14H3 Genes, Environment and Behaviour
BIOC15H3 Genetics
BIOC16H3 Evolutionary Genetics and Genomics
BIOC17H3 Microbiology: The Bacterial Cell
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC32H3 Human Physiology I
BIOC33H3 Mammalian Physiology II: Lecture and Laboratory or BIOC34H3 Mammalian Physiology II: Lecture
BIOC58H3 Biological Consequences of Global Change
BIOC65H3 Environmental Toxicology
NROC61H3 Learning and Motivation
NROC64H3 Sensory and Motor Systems
NROC69H3 Synaptic Organisation and Physiology of the Brain

0.5 Credit of Additional D-Level Biology Courses
Choose From:
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD26H3 Fungal Biology and Pathogenesis
BIOD29H3 Pathobiology of Human Disease
BIOD33H3 Comparative Animal Physiology
BIOD43H3 Exercise Physiology
Specialist/Specialist (Co-op) in Cell & Molecular Biology

Overview of Changes:

- Add BIOB34H as an alternate to BIOB30H under “3.0 Credits of Biology Core Courses”. In other words, students will either take BIOB30H (which is being deleted but current students will have completed) or BIOB34H (which students will take from now on).
- Add BIOC39H (Immunology) to the bin of options under “0.5 Credit of Cognate Biology Courses”
- Add BIOD26H (Fungal Biology and Pathogenesis) to the bin of options under the “0.5 credit of D-level Research orientated “Cell & Molecular” course work”.

Proposed Program 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 II: Reactions and Mechanisms

1.0 Credit in Mathematics
Choose from:
MATA30H3 & MATA35H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences
MATA30H3 & MATA36H3 Calculus I for Biological and Physical Sciences & 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
(BIOB30H3) Mammalian Physiology I or BIOB34H3 Animal Physiology
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
2.5 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC15H3 Genetics
BIOC17H3 Microbiology: The Bacterial Cell
BIOC23H3 Practical Approaches to Biochemistry

0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Programming
CSCA20H3 Computer Science for the Sciences
PSCB57H3 Introduction to Scientific Computing
Computer science might be taken in an earlier year

Third/Fourth Year
0.5 Credit of Cognate Biology Courses
Choose from:
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
(BGYC22H3) Vertebrate Histology: Organs
BIOC31H3 Molecular Aspects of Plant Development
BIOC39H3 Immunology
BIOD37H3 Biology of Plant Stress
Fourth Year

0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Molecular Biology Laboratory I: Host, Vectors and Cloning

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 Laboratory II: Nucleic Acids and Proteins
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Molecular Endocrinology
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 in Integrative Biology

Overview of Changes:
• Add BIOB34H to the “3.0 Credits of Biology Core Courses” so it reads BIOB30H or BIOB34H.
• Add BIOC32H (Human Physiology I) to the bin of options “0.5 Credit of Advanced Courses in Physiology, Biochemistry and Neurobiology” and also to the “Animal Physiology” optional “Routes to Specialization”.
• Add BIOC39H (Immunology) to the bin of options “0.5 Credit of Advanced Courses in Physiology, Biochemistry & Neurobiology” and also to the “Infection and Disease” optional “Routes to Specialization” section.
• Add BIOD48H (Ornithology & Herpetology) to the bin of options “0.5 Credit of Advanced Courses in Organismal Biology” and also to “The Conservation and Biodiversity of Organisms” optional “Routes to Specialization”.
• Delete ANTC12H (Research on the Social Behaviour of Non-Human Primates) from the bin of options “0.5 Credit of Advanced Courses in Organismal Biology”. Add ANTD22H (Theory and Methodology in Primatology) to the bin of options in place of ANTC12H.

Proposed Program Requirements:

A. Required Courses
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 in Chemistry
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

1.0 Credit in Mathematics
MATA30H3 & MATA35H3 Calculus I for Biological and Physical Sciences & Calculus II for Biological Sciences

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

0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Programming
CSCA20H3 Computer Science for the Sciences
PSCB57H3 Introduction to Scientific Computing (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
(BIOB30H3) Mammalian Physiology I or BIOB34H3 Animal Physiology
BIOB31H3 Plant Physiology
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

0.5 Credit of Biology Core Labs
Choose from:
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy Laboratory
BIOB52H3 Ecology and Evolutionary Biology Laboratory

0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Third Year
1.5 Credits of Biology Foundation Courses
BIOC15H3 Genetics
BIOC17H3 Microbiology: The Bacterial Cell
BIOC54H3 Animal Behaviour
Third/Fourth Year

0.5 Credit of Advanced Courses in Physiology, Biochemistry and Neurobiology
Choose from:
- BIOC12H3 Biochemistry I: Proteins and Enzymes
- BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
- BIOC23H3 Practical Approaches to Biochemistry
- BIOC32H3 Human Physiology I
- BIOC33H3 Mammalian Physiology II: Lecture and Laboratory
- BIOC34H3 Mammalian Physiology II: Lecture
- BIOC39H3 Immunology
- BIOC65H3 Environmental Toxicology
- ANTC67H3 Foundations in Epidemiology
- NROC34H3 Neuroethology
- NROC61H3 Learning and Motivation
- NROC64H3 Sensory and Motor Systems
- PSYC31H3 Clinical Neuropsychology
- BIOD27H3 Molecular Endocrinology
- BIOD29H3 Pathobiology of Human Disease
- BIOD43H3 Exercise Physiology
- BIOD65H3 Pathologies of the Nervous System
- NROD67H3 Psychobiology of Aging

0.5 Credit of Advanced Courses in Ecology and Conservation
Choose from:
- BIOC50H3 Macroevolution
- BIOC51H3 Tropical Biodiversity Field Course
- BIOC52H3 Ecology Field Course
- BIOC58H3 Biological Consequences of Global Change
- BIOC59H3 Advanced Population Ecology
- BIOC61H3 Community Ecology and Environmental Biology
- BIOC62H3 Role of Zoos in Conservation
- BIOC63H3 Conservation Biology
- BIOC67H3 Inter-University Biology Field Course
- EESC04H3 Biodiversity and Biogeography
- BIOD52H3 Special Topics in Biodiversity and Systematics
- BIOD60H3 Spatial Ecology
- BIOD62H3 Species and Speciation
- BIOD66H3 Causes and Consequences of Diversity

0.5 Credit of Advanced Courses in Genes and Development
Choose from:
- BIOC14H3 Genes, Environment and Behaviour
- BIOC16H3 Evolutionary Genetics and Genomics
- BIOC19H3 Animal Developmental Biology
- BIOC31H3 Plant Development
- BIOD19H3 Epigenetics in Health and Disease
- BIOD23H3 Special Topics in Cell Biology
**0.5 Credit of Advanced Courses in Organismal Biology**
Choose from:
- **BIOC21H3** Vertebrate Histology: Cells and Tissues
- (BGYC22H3) Vertebrate Histology: Organs
- **ANTC12H3** Research on the Social Behaviour of Non-Human Primates
- **ANTD22H3** Theory and Methodology in Primatology
- **ANTC68H3** Deconstructing Epidemics
- **EESC30H3** Microbial Biogeochemistry
- **BIOC37H3** Comparative Plant Form and Function
- **BIOD17H3** Seminars in Cellular Microbiology
- **BIOD26H3** Fungal Biology and Pathogenesis
- **BIOD33H3** Comparative Animal Physiology
- **BIOD37H3** Biology of Plant Stress
- **BIOD45H3** Animal Communication
- **BIOD48H3** Ornithology & Herpetology
- **BIOD53H3** Special Topics in Behavioural Ecology

**3.0 Credits of Additional C- or D-Level Biology Courses**
Choose from:
Any BIO (or formerly BGY) C- or D-level courses offered by the department.
**Note** that this includes the Biology Team Research, Supervised Studies and Directed Research courses (**BIOC99H3**, **BIOD95H3**, **BIOD98Y3** and **BIOD99Y3**).
**Note** that **NROC34H3** (Neuroethology), **EESC04H3** (Biodiversity and Biogeography) and **EESC30H3** (Microbial Biogeochemistry) may also be used toward fulfilling this requirement, if not already used toward fulfilling one of the other requirements above.

**B. Routes to Specialisation (optional)**
A key advantage of the specialist program in Integrative Biology is the ability for students to readily specialise in areas of particular interest. Please note that students are not required to follow any of these suggested routes. They are provided for guidance only.
- **For students with a particular interest in "The Impact of Environment and Climate Change on the Biology of Ecosystems"**, you should consider including some or all of the following courses in your program: **BIOB52H3** (Ecology and Evolutionary Biology Lab), **BIOC52H3** (Ecology Field Course), **BIOC58H3** (Biological Consequences of Global Change), **BIOC59H3** (Advanced Population Ecology), **BIOC61H3** (Community Ecology and Environmental Biology) and **BIOC67H3** (Inter-University Biology Field Course).
- **For students with a particular interest in "The Conservation and Biodiversity of Organisms"**, you should consider including some or all of the following courses in your program: **BIOC51H3** (Tropical Biodiversity Field Course), **BIOC62H3** (Role of Zoos in Conservation), **BIOC63H3** (Conservation Biology), **BIOD52H3** (Special Topics in Biodiversity and Systematics), **BIOD48H3** (Ornithology & Herpetology), **BIOD60H3** (Spatial Ecology) & **BIOD66H3** (Causes and Consequences of Biodiversity).
• For students with a particular interest in "Animal Physiology", you should consider including some or all of the following courses in your program: BIOB32H3 (Animal Physiology Laboratory), BIOC32H3 (Human Physiology I), BIOC33H3 or BIOC34H3 (Mammalian Physiology II), BIOD33H3 (Comparative Animal Physiology), BIOD43H3 (Exercise Physiology) & BIOD29H3 (Pathobiology of Human Disease).

• For students with a particular interest in "Ecophysiology", you should consider including some or all of the following courses in your program: BIOC65H3 (Environmental Toxicology), EESC30H3 (Microbial Biogeochemistry), BIOD33H3 (Comparative Animal Physiology) & BIOD37H3 (Biology of Plant Stress).

• For students with a particular interest in "Infection and Disease" or "clinically-oriented topics", you should consider including some or all of the following courses in your program: BIOB33H3 (Human Development and Anatomy), BIOC33H3 or BIOC34H3 (Mammalian Physiology II), ANTC67H3 (Foundations in Epidemiology) or ANTC68H3 (Deconstructing Epidemics), BIOC21H3 (Vertebrate Histology: Cells and Tissues), BIOC39H3 (Immunology), BIOD65H3 (Pathologies of the Nervous System), BIOD29H3 (Pathobiology of Human Disease), BIOD26H3 (Fungal Biology and Pathogenesis), BIOD17H3 (Seminars in Cellular Microbiology) & BIOD25H3 (Genomics).

• For students with a particular interest in "Plant and Microbial Biology", you should consider including some or all of the following courses in your program: BIOB33H3 (Human Development and Anatomy), EESC30H3 (Microbial Biogeochemistry), BIOD17H3 (Seminars in Cellular Microbiology) and BIOD37H3 (Biology of Plant Stress).

• For students with a particular interest in "Behavioural Biology" you should consider including some or all of the following courses in your program: NROC34H3 (Neuroethology), BIOD53H3 (Special Topics in Behavioural Ecology), BIOD45H3 (Animal Communication) & NROC61H3 (Learning and Motivation).

• For students with a particular interest in "Behavioural Genetics", you should consider including some or all of the following courses in your program: BIOC16H3 (Evolutionary Genetics and Genomics), NROC34H3 (Neuroethology), BIOD53H3 (Special Topics in Behavioural Ecology), BIOD23H3 (Special Topics in Cell Biology), BIOD25H3 (Genomics), BIOD21H3 (Molecular Biology Lab I: Host, Vectors & Cloning), BIOD22H3 (Molecular Biology Laboratory II: Nucleic Acids and Proteins) and BIOD45H3 (Animal Communication).

• For students with a particular interest in "The Evolution of Development" (a.k.a. "evo/devo"), you should consider including some or all of the following courses in your program: BIOC16H3 (Evolutionary Genetics and Genomics), BIOC19H3 (Animal Developmental Biology), BIOC31H3 (Molecular Aspects of Plant Development), BIOD23H3 (Special Topics in Cell Biology), BIOD25H3 (Genomics), BIOD21H3 (Molecular Biology Lab I: Host, Vectors & Cloning), BIOC22H3 (Molecular Biology Laboratory II: Nucleic Acids and Proteins), BIOC12H3 (Biochemistry I: Proteins and Enzymes), BIOC13H3 (Biochemistry II: Bioenergetics and Metabolism), BIOC23H3 (Practical Approaches to Biochemistry) and BIOC33H3 (Mammalian Physiology II: Lecture) or BIOC34H3 (Mammalian Physiology II: Lecture).

C. Complementary Elective Courses (optional)
When selecting electives, students may wish to consider the following courses that may be complementary to their program. However, keep in mind that minimum breadth requirements must be met to complete a degree.
ANTC11H3 Culture, Science and Biotechnology: Redefining the "Natural" Order of Things
ANTC17H3 Human Origins: New Discoveries
ANTC23H3 Primate Sexuality
ANTC41H3 Environmental Stress, Culture and Human Adaptability
ANTC47H3 Human and Primate Comparative Osteology
ANTC48H3 Advanced Topics in Human Osteology
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
ANTC62H3 Medical Anthropology: Biological and Demographic Perspectives
ANTD16H3 Biomedical Anthropology
ANTD17H3 Medical Osteology, Public Health Perspectives on Human Skeletal Health
ANTD25H3 Medical Primatology: Public Health Perspectives on Zoonotic Diseases
CHMC47H3 Bio-Organic Chemistry
EESB16H3 Feeding Humans - The Cost to the Planet
HISC03H3 History of Animals and People
HLTC03H3 Politics of Canadian Health Studies
IEEC03H3 History of Animals and People
(IEEC04H3) Defining the Human II
NROC61H3 Learning and Motivation
NROC63H3 Neuroscience Laboratory
NROC64H3 Sensory and Motor Systems
NROC69H3 Synaptic Organization and Physiology of the Brain
NROD63H3 Advanced Neuroscience Laboratory
PHLB09H3 Biomedical Ethics
POLC53H3 Canadian Environmental Politics
PSYC62H3 Drugs and the Brain
PSYD26H3 Genes, Brain and the Development of Mind
STAC52H3 Experimental Design

Specialist (Joint) in Paramedicine

Overview of Changes:
• Add BIOB34H as an alternate to BIOB30H under “2.0 Credits of Core Biology Courses”. In other words, students will either take BIOB30H (which is being deleted but current students will have completed) or BIOB34 (which students will take from now on).
• Add BIOC32H as an alternate to BIOC21H under “2.0 Credits of Foundational Biology Courses”.

Proposed Program Requirements:

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

2.0 Credits of Core Biology Courses
BIOB10H3 Cell Biology
2.0 Credits of Foundational Biology Courses
BIOC15H3 Genetics
BIOC17H3 Microbiology: The Bacterial Cell
BIOC21H3 Vertebrate Histology: Cells and Tissues or BIOC32H3 Human Physiology I
BIOC33H3 Mammalian Physiology II: Lecture and Laboratory

1.0 Credit of Advanced Biology Courses
Choose From:
BIOD17H3 Seminars in Cellular Microbiology
BIOD33H3 Comparative Animal Physiology
BIOD65H3 Pathologies of the Nervous System
BIOD26H3 Fungal Biology and Pathogenesis
BIOD43H3 Exercise Physiology
BIOD29H3 Pathobiology of Human Disease
BIOD96Y3 Directed Research in Paramedicine

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

1.0 Credit of Introductory Psychology Courses
PSYA01H3 Introductory Psychology: Part I
PSYA02H3 Introductory Psychology: Part II

1.0 Credit of B-Level Psychology Courses
PSYB20H3 Introduction to Developmental Psychology
PSYB32H3 Abnormal Psychology

1.0 Credit of Statistics/Data Analysis Courses
STAB22H3 Statistics I
or
PSYB07H3 Data Analysis in Psychology
PSYC08H3 Advanced Data Analysis in Psychology

Note: Students who do not take PSYB07H3 must complete an upgrade module prior to taking PSYC08H3.

7.0 Credits of Paramedicine Courses
*PMDB22H3 Pre-Hospital Care 1: Theory and Lab
*PMDB25H3 Therapeutic Approaches to Behaviour in Crisis
*PMDB30H3 Alterations of Human Body Function I
*PMDB32Y3 Pre-Hospital Care 2: Theory, Lab and Clinical
*PMDB36H3 Pharmacology for Allied Health Pre-requisite
*PMDB41H3* Professional Issues, Research and Leadership  
*PMDC40H3* Alterations in Human Body Function II  
*PMDC42Y3* Pre-Hospital Care 3: Theory, Lab and Field  
*PMDC43H3* Medical Directed Therapeutics and Paramedic Responsibilities  
*PMDC54Y3* Pre-Hospital Care 4: Theory, Lab and Field  
*PMDC56H3* Primary Care Practice Integration and Decision Making  
* A grade of 60% is required in these courses both to pass the course and to maintain standing in the program. All PMD courses are taught at Centennial College.

### 1.0 Credit of C-Level Anthropology Courses

- **ANTC67H3** Foundations in Epidemiology  
- **ANTC68H3** Deconstructing Epidemics

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**DEPARTMENT OF COMPUTER AND MATHEMATICAL SCIENCES**

**Specialist in Computer Science (Science)**

**Overview of Changes:**

- The total number of full credits required for each stream has been decreased by 1.0 (to 13.5 for the Comprehensive and the Software Engineering Streams, and to 15.0 for the Information Systems Stream).
- In the core program,
  - CSCA65H3 Mathematical Expression and Reasoning for Computer Science is replaced by CSCA67H3 Discrete Mathematics for Computer Scientists.
  - MATB42H3 Techniques of the Calculus of Several Variables II is deleted from B level courses.
- In electives and stream-specific courses:
  - the name of CSCC85H3 is changed to Introduction to Embedded Systems.
  - CSCC01H3 and CSCD01H3 now replace CSCC40 and CSCD08, respectively.
  - CSCC37H3 now replaces CSCC36H3 and CSCC50H3 (which are mutually exclusive).
  - CSCD37H3 now replaces CSCC51H3.
  - CSCD84H3 Artificial Intelligence, has been added as an elective to all streams.
  - CSC372H, CSC384H and CSC428H have been removed from Computer Science electives.
  - CSC320H Visual Computing, CSC401H Natural Language Computing, and CSC318H The Design of Interactive Computational Media have been added to the lists of Computer Science electives in all streams.
  - The requirement of two C- or D-level mathematics electives for the Comprehensive Stream has been replaced with a more general requirement for one C- or D-level course from CSC, MAT or STA to allow students to pursue their personal interests further within the program.
- Miscellaneous wording changes to improve clarity and eliminate redundancy in the calendar.
Existing Program Requirements:

This program has three streams:

1. Comprehensive Stream
2. Information Systems Stream
3. Software Engineering Stream

Program Admission

Each year, up to 80 students are admitted to the three streams of the Specialist Program in addition to those admitted to the Specialist Co-operative Program. There are three ways to be admitted:

1. **Directly from Secondary School**: Up to 40 students will be admitted directly from high school on the basis of academic performance. Applicants must have completed Grade 12 Calculus & Vectors and Advanced Functions.

2. **At the end of 1st Year**: Applicants must have completed all A-level courses required in their stream of the Specialist Program. Students applying for admission on completion of their first year (at least 4.0 full credits) will be accepted on the basis of their 1st year GPA and their marks in Computer Science and Mathematics courses. The minimum GPA to guarantee acceptance is calculated annually. It is never less than 2.0 and for this year it will not be greater than 2.8.

3. **After 2nd Year**: Admission of students after second year will also be on the basis of the grades they have received in Computer Science and Mathematics courses.

Students applying at the end of their first year or later will be considered together for a total of approximately 40 places in the Specialist Program. As noted above, a GPA of 2.80 and above will guarantee acceptance (provided all required A-level courses have been successfully completed).

Program Requirements

In order to remain in the Program, a student must maintain a cumulative GPA of 2.0 or higher throughout the Program. The courses may be taken in any order as long as the prerequisites and co-requisites are satisfied.

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. **Comprehensive Stream**
   
   **Supervisor of Studies**: R. Pancer (416-287-7679)  
   **Email**: pancer@utsc.utoronto.ca

   This stream requires 14.5 full credits.

   **Writing requirement**  
   (Should be completed by the end of second year.)

A level courses
CSCA08H3 Introduction to Computer Programming
CSCA48H3 Introduction to Computer Science
CSCA65H3 Mathematical Expression and Reasoning for Computer Science
MATA23H3 Linear Algebra I
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences

B level courses
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
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
STAB52H3 Introduction to Probability

C level courses
CSCC24H3 Principles of Programming Languages
CSCC43H3 Introduction to Databases
CSCC50H3 Numerical Algebra and Optimization
CSCC51H3 Numerical Approximation, Integration and Ordinary Differential Equations
CSCC63H3 Computability and Computational Complexity
CSCC69H3 Operating Systems
CSCC73H3 Algorithm Design and Analysis

D level courses
CSCD03H3 Social Impact of Information Technology

Elective courses
Note: In selecting the 2.5 credits needed to meet this requirement, student must include at least one D-level (400-level) course. Two of (additional courses related to the practice of computing):
CSCC09H3 Programming on the Web
CSCC40H3 Analysis and Design of Information Systems
CSCC85H3 Microprocessor Systems
CSCD08H3 Software Engineering
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD43H3 Database System Technology
CSCD58H3 Computer Networks
CSC321H Introduction to Neural Networks and Machine Learning
CSC372H Microprocessor Software
CSC384H Introduction to Artificial Intelligence
CSC428H Human-Computer Interaction
CSC469H Operating Systems Design and Implementation
CSC485H Computational Linguistics
CSC488H Compilers and Interpreters

Two of (additional fundamental mathematics courses):
- MATB43H3 Introduction to Analysis
- MATB44H3 Differential Equations I
- MATC01H3 Groups and Symmetry
- MATC15H3 Introduction to Number Theory
- MATC34H3 Complex Variables
- MATC35H3 Chaos, Fractals and Dynamics
- MATD01H3 Fields and Groups
- CSC446H Computational Methods for Partial Differential Equations
- CSC456H High Performance Scientific Computing

One of (additional courses related to the theory of computing):
- MATB61H3 Linear Programming and Optimization
- 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

2. Information Systems Stream
   Supervisor of Studies: R. Pancer (416-287-7679) Email: pancer@utsc.utoronto.ca

   Note: Due to enrolment restrictions in required Management courses, registration in this stream is limited. A maximum of 20 students will be admitted annually to the second year of the Program. Selection will be based on grades in A-level courses specified for the Program with a minimum GPA of 2.5.

   This stream requires 16.0 full credits.
   Writing requirement
   (Should be completed by the end of second year.)
   See Comprehensive Stream.

3. A level courses
   - CSCA08H3 Introduction to Computer Programming
CSCA48H3 Introduction to Computer Science
CSCA65H3 Mathematical Expression and Reasoning for Computer Science
MATA23H3 Linear Algebra I
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences
MGTA03H3 Introduction to Management I
MGTA04H3 Introduction to Management II

**B level courses**
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
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
STAB52H3 Introduction to Probability
MGTB23H3 Managing People in Organizations
MGTB29H3 Managing Groups and Organizations

**C level courses**
CSCC40H3 Analysis and Design of Information Systems
CSCC43H3 Introduction to Databases
CSCC63H3 Computability and Computational Complexity
CSCC69H3 Operating Systems
CSCC73H3 Algorithm Design and Analysis

**D level courses**
CSCD03H3 Social Impact of Information Technology
CSCD08H3 Software Engineering
CSCD43H3 Database System Technology

**Elective courses, all levels**
One of (additional courses in scientific computing):
CSCC36H3 Numerical Methods
CSCC50H3 Numerical Algebra and Optimization

Two of (additional courses related to the practice of computing):
CSCC09H3 Programming on the Web
CSCC85H3 Microprocessor Systems
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD58H3 Computer Networks
CSC321H Introduction to Neural Networks and Machine Learning
CSC372H Microprocessor Software
CSC384H Introduction to Artificial Intelligence
CSC465H Formal Methods in Software Design
CSC469H Operating Systems Design and Implementation
CSC485H Computational Linguistics
CSC488H Compilers and Interpreters

One of (additional courses related to business and computing):
CSC454H or (CSCD54H3) The Business of Software
MATB61H3 Linear Programming and Optimization
MGTC74H3 Analysis for Decision-Making

4. Software Engineering Stream
   Supervisor of Studies: R. Pancer (416 287 7679) Email: pancer@utsc.utoronto.ca
   This stream requires 14.5 full credits

   Writing requirement
   (Should be completed by the end of second year.)
   See Comprehensive Stream.

   A level courses
   CSCA08H3 Introduction to Computer Programming
   CSCA48H3 Introduction to Computer Science
   CSCA65H3 Mathematical Expression and Reasoning for Computer Science
   MATA23H3 Linear Algebra I
   MATA31H3 Calculus I for Mathematical Sciences
   MATA37H3 Calculus II for Mathematical Sciences

   B level courses
   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
   MATB41H3 Techniques of the Calculus of Several Variables I
   MATB42H3 Techniques of the Calculus of Several Variables II
   STAB52H3 Introduction to Probability

   C level courses
   CSCC24H3 Principles of Programming Languages
   CSCC40H3 Analysis and Design of Information Systems
   CSCC43H3 Introduction to Databases
   CSCC63H3 Computability and Computational Complexity
   CSCC69H3 Operating Systems
   CSCC73H3 Algorithm Design and Analysis
D level courses

CSCD03H3 Social Impact of Information Technology
CSCD08H3 Software Engineering

Elective courses, all levels

One of (additional courses in scientific computing):
CSCC36H3 Numerical Methods
CSCC50H3 Numerical Algebra and Optimization

Four of (additional courses in the practice of computing):
CSCC09H3 Programming on the Web
CSCC85H3 Microprocessor Systems
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD43H3 Database System Technology
CSCD58H3 Computer Networks
CSC469H Operating Systems Design and Implementation
CSC488H Compilers and Interpreters

Proposed Program Requirements and Calendar copy:

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 three 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 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.

Program Admission

Each year, up to 80 students are admitted to the three streams of the Specialist Program in addition to those admitted to the Specialist Cooperative Program. There are three ways to be admitted:

1. Directly from Secondary School: Up to 40 students will be admitted directly from high school on the basis of academic performance. Applicants must have completed Grade 12
Calculus & Vectors and Advanced Functions.

2. At the end of 1st Year: Applicants must have completed all A-level courses required in their stream of the Specialist Program. Students applying for admission on completion of their first year (at least 4.0 full credits) will be accepted on the basis of their 1st year GPA and their marks in Computer Science and Mathematics courses. The minimum GPA to guarantee acceptance is calculated annually.

3. After 2nd Year: Admission of students after second year will also be on the basis of their grades in Computer Science and Mathematics courses.

Students applying at the end of their first year or later will be considered together for a total of approximately 40 places in the Specialist Program.

**Program Requirements**
To remain in the Program, a student must maintain a cumulative GPA of 2.0 or higher throughout the Program. Courses may be taken in any order, providing prerequisites and co-requisites are satisfied.

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.

The program requirements comprise a core of 21 courses (10.5 credits), common to all three 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, and 30 courses (15 credits) for the Information Systems Stream.

The structure of the 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 to computer science students guidance in their course selection based on their broad (but possibly fluid) interests.

**CORE (10.5 credits)**
1. Writing Requirement (0.5 credit)(*)

   (*) It is recommended that this requirement be satisfied by the end of the second year

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

3. B-level courses (4 credits)
CSCB07H3 Software Design
CSCB09H3 Software Tools and Systems Software
CSCB36H3 Introduction to the Theory of Computation
CSCB58H3 Computer Organization
CSCB63H3 Design and Analysis of Data Structures
MATB24H3 Linear Algebra II
MATB41H3 Techniques of the Calculus of Several Variables I
STAB52H3 Introduction to Probability

4. C-level courses (2.5 credits)
CSCC43H3 Introduction to Databases
CSCC69H3 Operating Systems
CSCC37H3 Numerical Methods
CSCC63H3 Computability and Computational Complexity
CSCC73H3 Algorithm Design and Analysis

5. D-level course (0.5 credits)
CSCD03H3 Social Impact of Information Technology

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, 6 other distinct courses (3 full credits) must be chosen satisfying all of the following requirements:

6. Additional required courses (1 credit)
CSCC24H3 Principles of Programming Languages
CSCD37H3 Analysis of Numerical Algorithms for Computational Mathematics

7. Electives from courses on computer systems and applications (1 credit)
two of:
CSCC09H3 Programming on the Web
CSCC01H3 Introduction to Software Engineering
CSCC85H3 Introduction to Embedded Systems
CSCD01H3 Engineering Large Software Systems
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
CSCD43H3 Database System Technology
CSCD58H3 Computer Networks
CSCD84H3 Artificial Intelligence

2012-13 Undergraduate Curriculum Changes Approved by Governance. 30 March 2012.
CSC318H1 Design of Interactive Computational Media
CSC320H1 Visual Computing
CSC321H1 Introduction to Neural Networks and Machine Learning
CSC401H1 Natural Language Computing
CSC469H1 Operating Systems Design and Implementation
CSC485H1 Computational Linguistics
CSC488H1 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
   CSC438H1 Computability and Logic
   CSC448H1 Formal Languages and Automata
   CSC465H1 Formal Methods in Software Design

9. CSC, MAT, or STA elective (0.5 credit).
   one of:
   C- or D-level CSC, MAT or STA course, excluding MATC82H3, MATC90H3, and STAD29H3.

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, 6 other distinct courses (3 full credits) must be chosen satisfying all of the following requirements:

6. Additional required courses (1.5 credits)
   CSCC01H3 Introduction to Software Engineering
   CSCC24H3 Principles of Programming Languages
   CSCD01H3 Engineering Large Software Systems

7. Electives from courses on computer systems and applications (1.5 credits)
   three of:
   CSCC09H3 Programming on the Web
   CSCC85H3 Introduction to Embedded Systems
   CSCD11H3 Machine Learning and Data Mining
   CSCD18H3 Computer Graphics
   CSCD27H3 Computer and Network Security
   CSCD43H3 Database System Technology
   CSCD58H3 Computer Networks
   CSCD84H3 Artificial Intelligence
   CSC318H1 Design of Interactive Computational Media
   CSC320H1 Visual Computing
   CSC321H1 Introduction to Neural Networks and Machine Learning
   CSC401H1 Natural Language Computing
CSC469H1 Operating Systems Design and Implementation
CSC485H1 Computational Linguistics
CSC488H1 Compilers and Interpreters

INFORMATION SYSTEMS STREAM
Due to enrolment restrictions in required Management courses, registration in this stream is limited. At most 20 students are admitted annually to the second year of this stream. Selection is based on grades in the program A-level courses, with a minimum GPA of 2.5.

This stream requires a total of 30 courses (15 credits). In addition to the core requirements 1-5 common to all streams, 9 other distinct courses (4.5 full credits) must be chosen satisfying all of the following requirements:

6. Required management courses (2 credits)
   MGTA03H3 Introduction to Management I
   MGTA04H3 Introduction to Management II
   MGTB23H3 Managing People in Organizations
   MGTB29H3 Managing Groups and Organizations

7. Additional required computer science courses (1.5 credits)
   CSCC01H3 Introduction to Software Engineering
   CSED01H3 Engineering Large Software Systems
   CSED43H3 Database System Technology

8. Electives from courses on computer systems and applications (1 credit)
   two of:
   CSCC09H3 Programming on the Web
   CSCC85H3 Introduction to Embedded Systems
   CSED11H3 Machine Learning and Data Mining
   CSED18H3 Computer Graphics
   CSED27H3 Computer and Network Security
   CSED58H3 Computer Networks
   CSED84H3 Artificial Intelligence
   CSC318H1 Design of Interactive Computational Media
   CSC320H1 Visual Computing
   CSC321H1 Introduction to Neural Networks and Machine Learning
   CSC401H1 Natural Language Computing
   CSC469H1 Operating Systems Design and Implementation
   CSC485H1 Computational Linguistics
   CSC488H1 Compilers and Interpreters
Major in Computer Science (Science)

Overview of Changes:
• A short preamble to explain the key components of the program.
• Delete CSCA65H and add CSCA67H (a new course designed to replace A65 with a new syllabus to improve learning outcomes).
• Add CSCB09H to the list of required courses; this makes accessible a large number of upper-level CS courses to students in this program. Replace the requirement to MATB24 and STAB52 with the requirement to take one of these two courses; this keeps the number of credits required for the program at 8.
• CSCC36H and CSCC503 are replaced by CSCC37H (a new first in a new two-course sequence of Numerical Computation courses designed to replace the existing three courses in this area).
• The removal of unnecessary St George courses in the list of electives.
• The removal of the mathematics course requirement in the electives.
• Increasing the number of computer science electives from 1 to 2, and including a broader selection of courses from which these electives can be chosen.

Existing Program Requirements:

Program Admission
Each year up to 30 students are admitted to the second year of the Program, based on their first year GPA and marks in first-year courses in Computer Science and Mathematics. The minimum GPA to guarantee admission is calculated annually. It is never less than 2.00 and this year it will not be greater than 2.80.

Program Requirements
This program requires 8.0 full credits. The courses may be taken in any order as long as the prerequisites and co-requisites are satisfied.

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.

Writing recommendation:
Students in the Major program are strongly advised to take at least one of the following courses by the end of their second year: ANTA01H3, ANTA02H3, (CLAA02H3), ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB17H3, ENGB19H3, ENGB50H3, ENGB51H3, GGRA02H3, GGRA03H3, GGMB05H3, (GGMB06H3), (HISA01H3), HLTA01H3, (HUMA11H3), (HUMA17H3), (HUMA19H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.
A level courses
CSCA08H3 Introduction to Computer Programming
CSCA48H3 Introduction to Computer Science
CSCA65H3 Mathematical Expression and Reasoning for Computer Science
MATA23H3 Linear Algebra I
MATA31H3 Calculus I for Mathematical Sciences
MATA37H3 Calculus II for Mathematical Sciences

B level courses
CSCB07H3 Software Design
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

Elective courses, all levels
The courses chosen must include four courses at the C- or D-level (300 or 400) level satisfying:
One of (additional courses in the practice of computing):
CSCC09H3 Programming on the Web
CSCC24H3 Principles of Programming Languages
CSCC40H3 Analysis and Design of Information Systems
CSCC43H3 Introduction to Databases
CSCC69H3 Operating Systems
CSCC85H3 Microprocessor Systems
CSCD11H3 Machine Learning and Data Mining
CSCD18H3 Computer Graphics
CSCD27H3 Computer and Network Security
(CSCD54H3) The Business of Software

One of (additional courses in scientific computing):
CSCC36H3 Numerical Methods
CSCC50H3 Numerical Algebra and Optimization

One of (additional courses in the theory of computing):
CSCC63H3 Computability and Computational Complexity
CSCC73H3 Algorithm Design and Analysis
CSC465H Formal Methods in Software Design
CSC448H Formal Languages and Automata

One of (additional courses in mathematics):
MATB41H3 Techniques of the Calculus of Several Variables I
MATB61H3 Linear Programming and Optimization
MATC09H3 Introduction to Mathematical Logic
MATC16H3 Coding Theory and Cryptography
MATC32H3 Graph Theory and Algorithms for its Applications
MATC44H3 Introduction to Combinatorics
Proposed Program Requirements and Calendar copy:

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
Each year up to 30 students are admitted to the second year of the Program, based on their first year GPA and marks in first-year Computer Science and Mathematics courses. The minimum GPA to guarantee admission is calculated annually.

Program Requirements
This program requires a total of 16 distinct courses (8 credits) satisfying all of the following requirements:

1. A-level courses (3 credits).
   CSCA08H3 Introduction to Computer Programming
   CSCA48H3 Introduction to Computer Science
   CSCA67H3 Discrete Mathematics for Computer Scientists
   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 Numerical Methods
   one of:
       CSCC63H3 Computability and Computational Complexity
       CSCC73H3 Algorithm Design and Analysis

5. Electives (1 credit).
   two of:
       any C- or D-level CSC courses.
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.

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), ENGA10H3, ENGA11H3, ENGB06H3, ENGB07H3, ENGB08H3, ENGB17H3, ENGB19H3, ENGB50H3, ENGB51H3, GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), HLTA01H3, (HUMA11H3), (HUMA17H3), (HUMA19H3), (LGGA99H3), LINA01H3, PHLA10H3, PHLA11H3, WSTA01H3.

Minor in Computer Science (Science)

Overview of Changes:
• Updated calendar descriptions of existing courses, deletions of old courses, and the introduction of new courses require several minor modifications to the CS Minor calendar description. We have also streamlined the requirements to give the students somewhat more flexibility in choosing courses to suit their interests and prerequisites. In more detail, the changes include:
  o Replace CSCA65 with CSCA67 (to replace A65 with new syllabus to improve learning outcomes)
  o Include new course CSCB20 on databases and web programming for non-CS majors/specialists.
  o Replace requirements 3 and 4, with one requirement concerning second year CSC courses.
  o Replace requirements 5, 6 and 7 with one requirement to take 2 C- or D-level CSC courses

Existing Program Requirements:

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

1. All of: (introductory programming courses)
   - [CSCA20H3] Computer Science for the Sciences
   - [CSCA48H3] Introduction to Computer Science

2. One of: (basic mathematics courses)
   - [CSCA65H3] Mathematical Expression and Reasoning for Computer Science
   - [MATA23H3] Linear Algebra I
MATA31H3 Calculus I for Mathematical Sciences  
MATA32H3 Calculus for Management I  
PHLB50H3 Symbolic Logic I  

3. One of: (intermediate programming courses)  
   CSCB07H3 Software Design  
   CSCB09H3 Software Tools and System Programming  

4. One of: (prerequisites for other courses in the program)  
   CSCB36H3 Introduction to the Theory of Computation  
   CSCB58H3 Computer Organization  

5. One of: (courses in theoretical computer science or scientific computing)  
   CSCB63H3 Design and Analysis of Data Structures  
   CSCC36H3 Numerical Methods  
   CSCC63H3 Computability and Computational Complexity  
   CSCC73H3 Algorithm Design and Analysis  

6. One of: (courses in the practice of computing)  
   CSCC09H3 Programming on the Web  
   CSCC24H3 Principles of Programming Languages  
   CSCC40H3 Analysis and Design of Information Systems  
   CSCC43H3 Introduction to Databases  
   CSCC69H3 Operating Systems  
   CSCC85H3 Microprocessor Systems  
   CSCD03H3 Social Impact of Information Technology  

7. One additional course from those listed in Requirements 5 and 6  

Requirement 1 note: CSCA08H3 may be substituted, with permission of the program supervisor, for CSCA20H3.  
Requirements 5 & 6 note: CSCB63H3, CSCC09H3, CSCC36H3, CSCC40H3, CSCC43H3, CSCC69H3 & CSCC73H3 may require that you take more than 4.0 full credits to complete the program. If you are interested in taking one of these courses, check the prerequisites carefully before deciding which courses to select from Requirements 2-4. See the program supervisor if you need a program exception for the statistics prerequisite for CSCB63H3 or for the calculus prerequisite for CSCC36H3.

Proposed Program Requirements and Calendar copy:  

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

1. All of: (introductory programming courses)  
   CSCA20H3 Computer Science for the Sciences (or CSCA08H3 Introduction to Computer Programming)  
   CSCA48H3 Introduction to Computer Science  

2. One of: (basic mathematics courses)  
   CSCA67H3 Discrete Mathematics for Computer Scientists  
   MATA23H3 Linear Algebra I  
   MATA31H3 Calculus I for Mathematical Sciences
MATA32H3 Calculus for Management I
PHLB50H3 Symbolic Logic I

3. Three of: (intermediate programming, systems, and theory courses)
CSCB07H3 Software Design
CSCB09H3 Software Tools and System 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

4. Two CSC C- or D-level courses. Note that C- and D-level CSC courses have prerequisites that may require that you take more than 4.0 full credits to complete the program. If you are interested in taking one of these courses, check the prerequisites carefully before selecting courses.

Major in Mathematics

Overview of Changes:
• MATB44H (Differential Equations I) becomes a required course.
• Computer science requirement change: Only CSCA08H is now required, instead of CSCA48H (which has CSCA08H as a hidden prerequisite) or alternatively PSCB57H.
• MATB61H is added to the list of electives.

Existing Program Requirements:

Program Requirements
This program requires eight full credits.

1. Core Courses:
   [CSCA48H3 Introduction to Computer Science
or
PSCB57H3] Introduction to Scientific Computing
MATA23H3 Linear Algebra I
[MATA30H3 Calculus I for Biological and Physical Sciences or MATA31H3 Calculus I for Mathematical Sciences] and
[MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences.] The sequence MATA31H3 and MATA37H3 is recommended.
MATA31H3 is the pre-requisite for MATA37H3.
MATAB4H3 Linear Algebra II
MATB41H3 Calculus of Several Variables I
MATB42H3 Calculus of Several Variables II
STAB52H3 Introduction to Probability
[MATC01H3 Groups and Symmetry or MATC15H3 Introduction to Number Theory]

2. Analysis: 1.5 credits from:
MATB43H3, MATB44H3, MATC27H3, MATC46H3, MATC35H3, MATC37H3, MATC34H3, MATD34H3

3. Algebra and Geometry: 1.0 credit from
   MATB61H3, MATC01H3, MATC09H3, MATC15H3, MATC32H3, MATC44H3, MATC63H3, MATD01H3, MATD02H3

4. Applications: 1.0 credit from
   CSC C-level, CSC D-level, MATC16H3, MATC32H3, MATC44H3, MATC58H3, MATC82H3, MATC90H3, MATD61H3, STAB57H3, any STA C-level or D-level course, any STA-300, STA-400 level course on the St. George campus

Proposed Program Requirements and Calendar copy:

Program requirements:
This stream requires a total of 16 distinct courses (8 credits), chosen so as to satisfy all of the following requirements:

1. Foundational courses (5 credits)
   MATA23 Linear Algebra I
   one of:
       MATA30 Calculus I for Biological and Physical Sciences
       MATA31 Calculus I for Mathematical Sciences
   one of:
       MATA36 Calculus II for Physical Sciences
       MATA37 Calculus II for Mathematical Sciences (*)
   CSCA08 Introduction to Computer Programming
   MATB24 Linear Algebra II
   MATB41 Techniques of the Calculus of Several Variables I
   MATB42 Techniques of the Calculus of Several Variables II
   MATB44 Differential Equations I
   STAB52 Introduction to Probability
   one of:
       MATC01 Groups and Symmetry
       MATC15 Introduction to Number Theory

(*) MATA31 is required for MATA37

2. Further analysis courses (1 credit)
   two of:
       MATB43 Introduction to Analysis
       MATC27 Introduction to Topology
       MATC34 Complex Variables
       MATC35 Chaos, Fractals, and Dynamics
       MATC37 Introduction to Real Analysis
       MATC46 Differential Equations II
       MATD34 Complex Variables II
3. Further algebra, geometry, and discrete mathematics courses (1 credit)
   two of:
   - MATC01 Groups and Symmetry
   - MATC09 Introduction to Mathematical Logic
   - MATC15 Introduction to Number Theory
   - MATC32 Graph Theory and Algorithms for its Applications
   - MATC44 Introduction to Combinatorics
   - MATC63 Differential Geometry
   - MATD01 Fields and Groups
   - MATD02 Classical Plane Geometries and their Transformations

4. Electives (1 credit)
   two of:
   - MATB61 Linear Programming and Optimization
   - STAB57 Introduction to Statistics
   - any C- or D-level MAT, STA, or CSC course, excluding STAD29

Specialist in Quantitative Analysis

Overview of Changes:
• CSCC36H is replaced by CSCC37H
• CSCC50H is replaced by CSCC37H
• CSCC51H is replaced by CSCD37H

Proposed Program Requirements and Calendar copy:

Program Requirements
This program requires 13.0 credits including at least 4.0 credits at the C- or D-level of which at least 1.0 must be at the D-level.

Writing requirement (0.5 credits)
(Should be completed by the end of second year.)
One of:
- ANTA01H3, ANTA02H3, (CLAA02H3), ENGA10H3, ENGA11H3, ENGB06H3,
- ENGB07H3, ENGB08H3, ENGB09H3, ENGB17H3, ENGB19H3, ENGB50H3, ENGB51H3,
- GGRA02H3, GGRA03H3, GGRB05H3, (GGRB06H3), (HISA01H3), HLTA01H3,
- (HUMA11H3), (HUMA17H3), (HUMA19H3), (LGGA99H3), LINA01H3, PHLA10H3,
- PHLA11H3, WSTA01H3.

First Year (3.0 credits specified)
- CSCA08H3 Introduction to Computer Programming
- CSCA48H3 Introduction to Computer Science
- CSCA65H3 Mathematical Expression and Reasoning for Computer Science
- CSCA67H3 Discrete Mathematics for Computer Scientists
- MATA23H3 Linear Algebra I
**MATA31H3** Calculus I for Mathematical Sciences
**MATA37H3** Calculus II for Mathematical Scientists

**Second Year** (4.0 credits specified)
- **CSCB07H3** Software Design
- **CSCB36H3** Introduction to the Theory of Computation
- **CSCB63H3** Design and Analysis of Data Structures
- **MATB24H3** Linear Algebra II
- **MATB41H3** Techniques of the Calculus of Several Variables I
- **MATB44H3** Differential Equations I
- **STAB52H3** Introduction to Probability
- **STAB57H3** Introduction to Statistics

**Second, Third and Fourth Years**
Students should choose a stream during their second year of studies which fits with the area of application that interests them.

**Biological and Life Sciences Stream** (5.0 credits)
- **CSCC43H3** Introduction to Databases
- **CSCD11H3** Machine Learning and Data Mining
- **MATB42H3** Techniques of the Calculus of Several Variables II
  - or  
  - **MATB61H3** Linear Programming and Optimization
- **MATC46H3** Experimental Design
- **STAC62H3** Stochastic Processes
- **STAC67H3** Regression Analysis
- **STAD37H3** Multivariate Analysis
- Plus 0.5 additional full credits from ACT, CSC, MAT or STA courses at the B-level or above.

**Physical Sciences Stream** (5.0 credits)
- **CSCC37H3** Introduction to Computational Mathematics
- **CSCD37H3** Analysis of Numerical Algorithms for Computational Mathematics
- **CSCC50H3** Numerical Algebra and Optimization
- **CSCC51H3** Numerical Approximation, Integration and Ordinary Differential Equations
- **MATB42H3** Techniques of the Calculus of Several Variables II
- **MATB43H3** Introduction to Analysis
- **MATC34H3** Complex Variables
- **MATC35H3** Chaos, Fractals and Dynamics
- **MATC46H3** Differential Equations II
- **STAC62H3** Stochastic Processes
- Plus 1.0 additional full credit from ACT, CSC, MAT or STA courses at the B-level or above, of which at least 0.5 credit must be at the D-level.

**Mathematical Finance, Management and Economics Stream** (5.0 credits)
- **ACTB40H3** Fundamentals of Investment and Credit
Minor in Literature and Film Studies

Overview of Changes:

- Distinguish the A-level core course requirements from the B-level core course requirements. Continue to require 0.5 credits at the A-level (choice between ENGA10H and ENGA11H). The B-level core course requirement will be 1.5 credits (courses are ENGB70H, ENGB75H, and ENGB76H).
- Lower the C- or D-level requirement from 2.0 to 1.0 credits. C-level course will include the existing courses ENGC76H, ENGC77H, and ENGC78H.
- Add a new requirement for 1.0 credit in English, not limited to film courses.
Proposed Program Requirements:

4.0 full credits in English are required

1. 1.5 credits as follows:

   **Require 2.0 credits**
   
   ENGA10H3 Introduction to Twentieth-Century Literature and Film: 1890 to World War II  
   or  
   ENGA11H3 Introduction to Twentieth-Century Literature and Film: 1945 to Today  
   ENGB70H3 Introduction to Cinema  
   ENGB75H3 Cinema and Modernity I  
   ENGB76H3 Cinema and Modernity II

2. 0.5 credits as follows:

   ENGA10H3 Introduction to Twentieth-Century Literature and Film: 1890 to World War II  
   or  
   ENGA11H3 Introduction to Twentieth-Century Literature and Film: 1945 to Today

3. 1.0 credits at the C- or D-level, from the following:

   **Require 2.0 additional C and D level courses**
   
   ENGC76H3 The Body in Modernity: Theories and Representations  
   or  
   ENGC77H3 The Body in Contemporary Culture: Theories and Representations  
   ENGC56H3 Literature and Media: From Page to Screen  
   ENGC76H3 The Body in Modernity: Theories and Representations  
   ENGC77H3 The Body in Contemporary Culture: Theories and Representations  
   ENGC78H3 Dystopian Visions in Fiction and Film  
   ENGC82H3 Cinema Studies: Themes and Theories  
   ENGC83H3 Studies in World Cinema  
   ENGD52H3 Cinema: The Auteur Theory  
   ENGD62H3 Topics in Postcolonial Literature and Film  
   ENGD91H3 Avant-Garde Cinema  
   ENGD93H3 Theoretical Approaches to Cinema  
   ENGD94H3 Stranger Than Fiction: The Documentary Film

1. 1.0 additional credits in English

Please note: film courses selected from other departments and disciplines will be approved for the Minor in Literature and Film Studies on a case-by-case basis.
Minor in African Studies

Overview of Changes:

- A new first year course, AFSA03H Experiencing Development in Africa, will be added. This is shared with IDS and funded by the first year programming initiative. This will not be compulsory for AFS minor students but will be listed at the second level of program requirements. The proposal was submitted separately as part of the first year initiative.
- AFSA02H, African Worldviews, will be moved to the B level and recoded as AFSB01H. AFSB01H will remain at the first (compulsory) level of program requirements.
- A new AFS course will be added. This is AFSC30H, Language and Society in the Arab World, which will be at the second and third levels of program requirements.
- Three courses from other programs will be added as AFS options at the third (optional) requirement level: ENGC51H, Contemporary Arab Women Writers; GGRB28H, Geographies of Disease; GGRC25H, Land Reform and Development.

Proposed Program Requirements:

Students must complete four full credits, as follows:

1. **AFSA01H3** Africa in the World: An Introduction
   **AFSA02H3** African Worldviews
   **AFSB01H3** African Worldviews

2. 1.0 credit from the following (students should check course descriptions for prerequisites):
   - **AFSA03H3** Experiencing Development in Africa
   - **ANTB05H3** Culture and Society in Africa
   - **HISB50H3** Africa in the Nineteenth Century
   - **HISB51H3** Twentieth Century Africa
   - **AFSC30H3** Language and Society in the Arab World (if not used in Requirement 2)
   - **ANTB05H3** Culture and Society in Africa (if not used in Requirement 2)
   - (**ANTC06H3**) African Cultures and Societies II: Case Studies
   - **CLAC05H3** Environment, Society and Economy in Ptolemaic and Roman Egypt
   - **ENGB17H3** Contemporary Literature from the Caribbean
   - **ENGC51H3** Contemporary Arab Women Writers
   - **ENGC72H3** Contemporary Literature from Africa
   - **ENGC73H3** Rap Poetics (formerly ENGD63H3)
   - **ENGD08H3** Topics in African Literature
   - (**ENGD61H3**) James Baldwin, the African American Experience, and the Liberal Imagination
   - **FREA01H3** Language Practice I
   - **FREA02H3** Language Practice II

2012-13 Undergraduate Curriculum Changes Approved by Governance. 30 March 2012.
Overview of Changes:
• Add VPAA06H to Requirement #1a of the program.
• Move VPAB15H from Requirement #1a to Requirement #1d of the program.

Proposed Program Requirements:

Students complete seven full credits in the arts management core program, two full credits in the management field, and six to eight full credits from one or two related field(s). Continuous consultation with the Program Supervisor is strongly encouraged for all students in each year of their program.

1. Arts Management Core Courses
   Students must complete seven full credits as follows:
   a. The following five full credits:
      VPAA10H3 Introduction to Arts Management
      VPAA12H3 Audience and Resource Development
      VPAA06H3 Visual and Performing Arts Management in the Digital Age
      VPAB05H3 Introduction to Contemporary Cultural Theory
      VPAB05H3
b. One half credit from the following list:
   VPAC17H3 Arts Marketing
   VPAC18H3 Fundraising and Development in the Arts

1. Arts Management Field of Study
   The following two full credits are required:
   a. MGTA03H3 Introduction to Management I
   b. MGTA04H3 Introduction to Management II
   c. Plus one additional full credit from Management or Economics (normally at the C level).

2. Management Field of Study
   The following two full credits are required:
   a. MGTA03H3 Introduction to Management I
   b. MGTA04H3 Introduction to Management II
   c. Plus one additional full credit from Management or Economics (normally at the C level).

3. Related Field(s) of Study
   Six to eight full credits, including at least one half credit at the C- or D-level, from one or two related fields of study. These courses must:
   a. Consist of six full credits of those credits required within the Major program in one of the artistic disciplines within Visual and Performing Arts (Art History, Music, Studio and Theatre & Performance Studies). Students choosing this option may wish to take one-two additional credits necessary to complete the Major program in place of unrelated elective courses.
      or
   b. Consist of the eight full credits required of two Minor programs, at least one of which must be in a Visual and Performing Arts artistic discipline.

Minor in Classical Studies

Overview of Changes:
• Remove CLAC22H from Requirement 3 of the program; add it to the list of electives in Requirement 5
• Increase total number of credits in Requirement 5 from 1.0 to 1.5
Proposed Program Requirements:
Students must complete four full credits, as follows:

1. Introduction
CLAA04H The Ancient Mediterranean World

2. History and Culture
CLAB05H History and Culture of the Greek World
CLAB06H History and Culture of the Roman World

3. Mythology and Religion
CLAA06H Ancient Mythology II: Greece and Rome
CLAC22H Religions of the Ancient Mediterranean

4. Literature (0.5 credit from the following courses)
CLAC11H Classical Literature I: Poetry
CLAC12H Classical Literature II: Prose

5. Electives (1.5 full credit from the following courses, including at least 1 full credit at the C or D-level. Students need to take at least 1 FCE at the A-level, 1 FCE at the B-level, and .5 FCE at the C-level before choosing their electives):

Classical Studies
CLAA05H Ancient Mythology I: Mesopotamia and Egypt
(CLAB10H) Greek and Latin for Scientists
CLAB20H The Classical World in Film
CLAC01H Selected Topics in Classical Literature
CLAC02H Selected Topics in Classical Civilization
CLAC05H Environment, Society and Economy in Ptolemaic and Roman Egypt
CLAC11H Classical Literature I: Poetry if not taken as a required course
CLAC12H Classical Literature II: Prose if not taken as a required course
CLAC22H Religions of the Ancient Mediterranean
CLAC24H Multiculturalism and Cultural Identities in the Greek and Roman Worlds
CLAD05H Water Management in the Ancient Mediterranean World

Art History
VPHB41H The Human Figure in Greek Art (8th–4th cent. B.C.)
VPHB52H Ancient Art and Architecture (ca 900 B.C.- 300 A.D.)
VPHB76H Religion in the Arts: The Judeo-Christian Traditions
VPHC46H Topics in Art of the Ancient World
VPHC53H The Silk Routes

English
ENGB38H Classical Myth and Literature
ENGCI6H The Bible and Literature I
ENGCI7H The Bible and Literature II
ENGCI26H Drama: Tragedy

2012-13 Undergraduate Curriculum Changes Approved by Governance 30 March 2012.
ENGС27H Drama: Comedy

Languages
LGGA50H Introductory Latin I
LGGA51H Introductory Latin II
LGGA54H Introductory Sanskrit I
LGGA55H Introductory Sanskrit II
LGGB54H Intermediate Sanskrit I
LGGB55H Intermediate Sanskrit II

Music
VPMC93H Orpheus

Philosophy
PHLB16H Political Philosophy: Ancient Greece and the Middle Ages
PHLB31H Introduction to Ancient Philosophy
PHLC32H3 Topics in Ancient Philosophy

Religion
(RLGB01H) The "Holy Book" in Judaism, Christianity and Islam
(RLGC01H) The Five Books of Moses
(RLGC02H) The Gospels
(RLGC03H) Paul and the Invention of Christianity
(RLGC04H) Hindu Epic
RLGC05H The Qu'ran in Interpretive and Historical Context

Anthropology
(ANTB04H) Artifacts and Prehistory
(ANTB12H) Introduction to World Prehistory: The Rise of Civilization

Note: Students who were enrolled at UTSC prior to the 2009 Summer Session may substitute one of CLAA02H or CLAA03H for CLAA06H in Requirement 3. Students who have both CLAA02H & CLAA03H may substitute one of the courses for CLAA04H in Requirement 1.

Specialist in French

Overview of Changes:
• The requirements for the Specialist in French currently consist of a total of 12.0 credits: 4.0 in Language Practice; 3.0 in Linguistics; 1.0 in Cultural Studies; 3.0 in Literature; 1.0 additional credit. The required number of credits in Linguistics will be reduced from 3.0 to 2.5; the required number of credits in Cultural Studies will be increased from 1.0 to 1.5.
• The existing course FREB70H Cinema of the Francophone World has been added to requirement #3 of the program.
• Five French linguistics courses are being double-numbered with the Linguistics group and the
courses taught in English. A note stating that students cannot obtain more than 0.5 credits
(out of 12.0) by taking a course taught in English has been added to the bottom of the
Program Requirements to limit the number of courses taught in English that a student may
take.

Proposed Program Requirements:

Program Requirements
This program requires 12.0 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. 4.0 credits consisting of:
   - **FREA01H3** Language Practice
   - **FREA02H3** Language Practice II
   - **FREB01H3** Language Practice II
   - **FREB02H3** Language Practice IV
   - **FREC01H3** Language Practice V
   - **FREC02H3** Language Practice VI
   - **FRED01H3** Language Practice VII: Written French
   - **FRED06H3** Language Practice VIII: Oral French
   (Except where substitution of other French credits is permitted for students with special
   proficiency in the French language)

2. 3.0 credits selected from:
   - **FREB43H3** Understanding French Grammar
   - **FREB44H3** Introduction to Linguistics: French Phonetics and Phonology
   - **FREB45H3** Introduction to Linguistics: French Morphology and Syntax
   - **FREC12H3** Semantics: The Study of Meaning
   - **FREC45H3** French Morphology
   - **FREC46H3** French Syntax
   - **FREC47H3** Special Topics in Linguistics: Pidgin and Creole Languages
   - **FREC48H3** Sociolinguistics of French
   - **FRED46H3** Special Topics in Advanced French Syntax
   (FRED49H3 French Semantics)

3. 1.0 credits selected from:
   - **FREB22H3** The Society and Culture of Québec
   - **FREB27H3** Modern France
   - **FREB28H3** The Francophone World
   - **FREB70H3** Cinema of the Francophone World
   - **FREB84H3** Folktale, Myth and the Fantastic in the French-Speaking World
   - **FREC83H3** Cultural Identities and Stereotypes in the French-Speaking World

4. 3.0 credits in literature which must include:
one full credit in French Canadian literature; one full credit in French literature (**FREB50H3**,
**FREB51H3** and **FREB55H3** can fulfill this requirement);
one-half credit in literature from other parts of the French-speaking world excluding France
and Canada, one-half credit of your choice.
5. 1.0 additional credit in French.  
    **Note:** CTEP students should choose two subject-specific half credit courses focusing on teaching French.  
    **Note:** Specialist students (including CTEP) cannot obtain more than 0.5 credit (out of 12.0) by taking a course in English. This does not include the CTEP courses taught in English through OISE.

### Major in French

**Overview of Changes:**
- Five French linguistics courses are being double-numbered with the Linguistics group and the courses taught in English. A note stating that students cannot obtain more than 0.5 credits (out of 7.0) by taking a course taught in English has been added to the bottom of the Program Requirements to limit the number of courses taught in English that a student may take.
- FREC47H is being added to requirement #2 of the program. FRED49H is being re-coded as FREC12H and the program has been modified to reflect this change.

**Proposed Program Requirements:**

**Program Requirements**

Students must complete 7.0 credits in French, of which at least 2.0 credits must be at the C- or D-level, including:

1. **FREA01H3, FREA02H3, FREB01H3** and **FREB02H3** (except where the Program Supervisor permits substitution of other FRE courses for students with special proficiency in the French language).
3. One full credit in literature and/or culture. Literature courses are: **FREB20H3**, **FREB35H3**, **FREB36H3**, **FREB37H3**, **FREB50H3**, **FREB51H3**, **FREB55H3**, (FREB60H3), **FREC38H3**, **FREC56H3**, **FREC61H3**, **FREC63H3**, **FRED12H3** Culture courses are: **FREB22H3**, **FREB27H3**, **FREB28H3**, **FREB70H3**, **FREB84H3**, **FREC83H3**.
4. Three additional full credits in French

**Note:** At the A-level, only **FREA01H3** and **FREA02H3** may be counted towards a French Program.  
**Note:** For Co-op opportunities related to the Major Program in French please see the **Humanities** section in this **Calendar**.  
**Note:** Major students cannot obtain more than 0.5 credits (out of 7.0) by taking a course taught in English.
Specialist in Global Asia Studies
Major in Global Asia Studies
Minor in Global Asia Studies

Overview of Changes:

- Reduce the required number of A-level GAS courses from 2 to 1 (from 1.0 credits to 0.5 credits). The program will offer at least 1 A-level course for students, taught in rotation by different faculty members in different years. Students will have a choice between GASA01H or GASA02H in different years. These A-level courses will be known as core courses, one of which has to be completed if a student is to graduate from the program.
- Eliminate the existing division of courses into core and electives at the B-, C-, and D-levels as they are no longer valid.
- Add flexibility to the language requirement so that majors and specialists who do not qualify for existing upper-level language courses at the university (at present, only Chinese upper-level courses are offered; other Asian languages such as Hindi offer only up to 1.0 credits) can make up those credits with 1.0 credits in one language, and the remainder of their credits in another language; or, if they are not qualified to take available courses in another language offered at the university, to make up the necessary credits with other GAS courses at the C- and D-levels (with the prior written permission of the program director).
- Delete the following courses: GASB01H, GASB10H, GASB11H, GASB34H, GASC12H, GASC31H, GASC34H, GASC51H, and GASD50H. Add the following courses: GASB06H (new), GASB15H (new), GASC45H (new), and GASD03H (new).

Proposed Program Requirements:

SPECIALIST PROGRAM IN GLOBAL ASIA STUDIES (ARTS)

Students must complete 12.0 full credits, including at least 4.0 C- and/or D-level, credits of which at least 1.0 must be at the D-level as follows:

1. 1.0 0.5 credit as follows:
   - GASA01H3 Introduction to Global Asia I & or
   - GASA02H3 Introduction to Global Asia II

2. 4.0 8.0 credits from any of the GAS core courses below:
   - GASB01H3 Methodologies and Issues in Global Asia Studies
   - GASB10H3 Introduction to South Asian Literature
   - GASB11H3 Introduction to Chinese Literature
   - GASB05H3 Media and Globalization
   - GASB06H3 Asian Visual Culture and Media
   - GASB15H3 The Arts of South Asia
   - GASB20H Gender and Social Institutions in Asia
   - GASB30H Asian Religions and Cultures
   - GASB31H Chinese Thought and Culture in Historical Perspective
   - GASB33H Global Buddhism in Historical and Contemporary Societies
   - GASB34H3 Culture and Society in Classical South Asia
   - GASB35H The Japanese Empire: A Short History
GASB57H3 Sub-Continental Histories: South Asia in the World
GASB58H3 Modern Chinese History
GASB67H3 Religion in the Arts: Buddhist Arts and Cultures
GASB73H3 Visualizing Asia
GASB75H3 Religion in the Arts: Hinduism and Jainism
GASC19H3 Gender in East Asian Science and Technology
GASC20H3 Gendering Global Asia
GASC31H3 Self and Imagination in Pre-modern China
GASC32H3 Art of Memory: China and the West
GASC33H3 Critical Perspectives in Global Buddhism
GASC34H3 Texts and Learning in Classical South Asia
GASC40H3 Chinese Media and Politics
GASC41H3 Media and Popular Culture in East and Southeast Asia
GASC42H3 Film and Popular Culture in South Asia
GASC43H3 Colonialisms and Cultures in Modern East Asia
GASC45H3 Film and Popular Cultures in East Asia
GASC50H3 Comparative Studies of East Asian Legal Cultures
GASC51H3 Politics and Culture in Modern South Asia
GASC53H3 The Silk Routes
GASC57H3 China and the World
GASC74H3 A Tale of Three Cities: Introduction to Contemporary Art in China

3. 1.0 credits from courses listed below:
GASD01H3 Senior Seminar: Topics in Global Asian Cultures
GASD02H3 Senior Seminar: Topics in Global Asian Societies
GASD03H3: Senior Seminar: Special Topics in Global Asia Studies
GASD20H3 Senior Seminar: Social Change and Gender Relations in Chinese Societies
GASD40H3 Senior Seminar: Issues in Chinese Media Studies
GASD56H3 Coolies and Others: Asian Labouring Diasporas in the British Empire
GASD58H3 Culture, Politics, and Society in Late Imperial China
GASD59H3 Law and Society in Chinese History
GASD46H3 Visual Encounter: The Meeting of Eastern and Western Art

An additional 2.5 credits can be from the above GAS core courses or from the electives below:
GASB05H3 Media and Globalization (formerly HUMB74H3)
GASB67H3 Religion in the Arts: Buddhist Arts and Cultures
GASB73H3 Visualizing Asia
GASB75H3 Religion in the Arts: Hinduism and Jainism
GASC12H3 Contemporary Engaged Buddhist Movements in Asia
GASC19H3 Gender in East Asian Science and Technology
GASC53H3 The Silk Routes
GASC74H3 A Tale of Three Cities: Introduction to Contemporary Art in China
(VPHC58H3) Religion in the Arts: Seminar in Buddhism and Art

4. 2.5 credits from Asian language courses taught at the university, of which at least 1.5 credits should be from courses taken at the B, C, or D-levels. Preferably, these language courses will be taken in sequence.
Students who do not qualify for existing upper-level language courses at the university may (with the prior written permission of the Program Supervisor) be permitted to make up any necessary credits with other upper-level GAS courses.

2.0 credits from any of the D-level courses listed below:
GASD01H3 Senior Seminar: Topics in Global Asian Cultures
GASD02H3 Senior Seminar: Topics in Global Asian Societies
GASD20H3 Senior Seminar: Social Change and Gender Relations in Chinese Societies
GASD40H3 Senior Seminar: Issues in Chinese Media Studies
GASD46H3 Visual Encounter: The Meeting of Eastern and Western Art
GASD50H3 Senior Seminar: Social and Cultural Aspects of South Asian Societies
GASD56H3 'Coolies' and Others: Asian Labouring Diasporas in the British Empire
GASD58H3 Culture, Politics, and Society in Late Imperial China
GASD59H3 Law and Society in Chinese History

5. An additional 2.5 full credits should be from Asian language courses taught at the university, of which at least 1.5 credits should be from such courses taken at the B, C, or D levels. Preferably, these language courses will be taken in sequence as far as is practicable. The aim is for students to acquire linguistic competence in one or more Asian languages to aid in his or her future professional development. The GAS program director will guide GAS students in choosing from the Asian language courses offered at the university, especially if they face challenges in finding suitable upper-level courses in these languages.

MAJOR PROGRAM IN GLOBAL ASIA STUDIES (ARTS)

Students must complete 7.5 credits of which at least 2.0 must be at the C- and/or D-level as follows:

1. 1.0 credit must come from 0.5 credit as follows:
   GAS01H3 Introduction to Global Asia I or
   GAS02H3 Introduction to Global Asia II

2. 2.5 credits should be from any of the GAS core courses below
   3.5 credits from the courses below:
   GASB01H3 Methodologies and Issues in Global Asia Studies
   GASB10H3 Introduction to South Asian Literatures
   GASB11H3 Introduction to Chinese Literature
   GASB05H Media and Globalization
   GASB06H3 Asian Visual Culture and Media
   GASB15H5 The Arts of South Asia
   GASB20H Gender and Social Institutions in Asia
   GASB30H Asian Religions and Cultures
   GASB31H Chinese Thought and Culture in Historical Perspective
   GASB33H Global Buddhism in Historical and Contemporary Societies
   GASB34H3 Culture and Society in Classical South Asia
GASB35H The Japanese Empire: A Short History
GASB57H3 Sub-Continental Histories: South Asia in the World
GASB58H3 Modern Chinese History
GASB67H3 Religion in the Arts: Buddhist Arts and Cultures
GASB73H3 Visualizing Asia
GASB75H3 Religion in the Arts: Hinduism and Jainism
GASC19H3 Gender in East Asian Science and Technology
GASC20H3 Gendering Global Asia
GASC31H3 Self and Imagination in Pre-modern China
GASC32H Art of Memory: China and the West
GASC33H Critical Perspectives in Global Buddhism
GASC34H3 Texts and Learning in Classical South Asia
GASC40H Chinese Media and Politics
GASC41H Media and Popular Culture in East and Southeast Asia
GASC42H Film and Popular Culture in South Asia
GASC43H Colonialisms and Cultures in Modern East Asia
GASC45H3 Film and Popular Cultures in East Asia
GASC50H3 Comparative Studies of East Asian Legal Cultures
GASC51H3 Politics and Culture in Modern South Asia
GASC53H3 The Silk Routes
GASC57H3 China and the World
GASC74H3 A Tale of Three Cities: Introduction to Contemporary Art in China

3. 1.0 credits from courses listed below:
GASD01H3 Senior Seminar: Topics in Global Asian Cultures
GASD02H3 Senior Seminar: Topics in Global Asian Societies
GASD03H3: Senior Seminar: Special Topics in Global Asia Studies
GASD20H3 Senior Seminar: Social Change and Gender Relations in Chinese Societies
GASD40H3 Senior Seminar: Issues in Chinese Media Studies
GASD56H3 Coolies and Others: Asian Labouring Diasporas in the British Empire
GASD58H3 Culture, Politics, and Society in Late Imperial China
GASD59H3 Law and Society in Chinese History
GASD46H3 Visual Encounter: The Meeting of Eastern and Western Art

An additional 1.0 credits can be from the above GAS core courses or from the electives below:
GASB05H3 Media and Globalization (formerly HUMB74H3)
GASB67H3 Religion in the Arts: Buddhist Arts and Cultures
GASB73H3 Visualizing Asia
GASB75H3 Religion in the Arts: Hinduism and Jainism
GASC12H3 Contemporary Engaged Buddhist Movements in Asia
GASC19H3 Gender in East Asian Science and Technology
GASC53H3 The Silk Routes
GASC74H3 A Tale of Three Cities: Introduction to Contemporary Art in China
(VPHC58H3) Religion in the Arts: Seminar in Buddhism and Art
4. 2.0 credits from Asian language courses taught at the university, of which at least 1.0 credits should be from courses taken at the B, C, or D-levels. Preferably, these language courses will be taken in sequence.

Students who do not qualify for existing upper-level language courses at the university may (with the prior written permission of the Program Supervisor) be permitted to make up any necessary credits with other upper-level GAS courses.

At least 1.0 credits from any of the D-level courses listed below:
- **GASD01H3** Senior Seminar: Topics in Global Asian Cultures
- **GASD02H3** Senior Seminar: Topics in Global Asian Societies
- **GASD20H3** Senior Seminar: Social Change and Gender Relations in Chinese Societies
- **GASD40H3** Senior Seminar: Issues in Chinese Media Studies
- **GASD46H3** Visual Encounter: The Meeting of Eastern and Western Art
- **GASD50H3** Senior Seminar: Social and Cultural Aspects of South Asian Societies
- **GASD56H3** 'Coolies' and Others: Asian Labouring Diasporas in the British Empire
- **GASD58H3** Culture, Politics, and Society in Late Imperial China
- **GASD59H3** Law and Society in Chinese History

5. An additional 2.0 full credits should be from Asian language courses taught at the university, of which at least 1.0 credit should be from such courses taken at the B, C, or D-levels. Preferably, these language courses will be taken in sequence as far as is practicable. The aim is for students to acquire linguistic competence in one or more Asian languages to aid in his or her future professional development. The GAS program director will guide GAS students in choosing from the Asian language courses offered at the university, especially if they face challenges in finding suitable upper-level courses in these languages.

**MINOR PROGRAM IN GLOBAL ASIA STUDIES (ARTS)**

Students must complete 4.0 credits as follows:

1. 1.0 credit must come from 0.5 credit as follows:
   - **GASA01H3** Introducing Global Asia and its Histories
   - **GASA02H3** Introduction to Global Asia

2. For the remaining 3.5 credits, students have two options:
   a. complete 3.5 credits from the courses listed below, of which at least 1.5 credits must be at the C- or D-level; or
   b. complete 2.5 credits from the courses listed below, of which at least 1.0 credit must be at the C- or D-level, plus 1.0 credit from Asian language courses.

For the remaining 3.0 credits students have two options to meet the requirements. One option is to complete 3.0 credits from the following courses (including at least 1.5 credits from C- or D-levels). The other option is to complete 2.0 credits from the following courses (including at least 1.0 credit from C- or D-levels), in addition to 1.0 credit from Asian language courses.
GASB01H3 Methodologies and Issues in Global Asia Studies
GASB10H3 Introduction to South Asian Literatures
GASB11H3 Introduction to Chinese Literature
GASB05H3 Media and Globalization
GASB06H3 Asian Visual Culture and Media
GASB15H3 The Arts of South Asia
GASB20H3 Gender and Social Institutions in Asia
GASB30H3 Asian Religions and Cultures
GASB31H3 Chinese Thought and Culture in Historical Perspective
GASB33H3 Global Buddhism in Historical and Contemporary Societies
GASB34H3 Culture and Society in Classical South Asia
GASB35H3 The Japanese Empire: A Short History
GASB57H3 Sub-Continental Histories: South Asia in the World
GASB58H3 Modern Chinese History
GASB67H3 Religion in the Arts: Buddhist Arts and Cultures
GASB73H3 Visualizing Asia
GASB75H3 Religion in the Arts: Hinduism and Jainism
GASC12H3 Contemporary Engaged Buddhist Movements in Asia
GASC19H3 Gender in East Asian Science and Technology
GASC20H3 Gendering Global Asia
GASC31H3 Self and Imagination in Pre-modern China
GASC32H3 Art of Memory: China and the West
GASC33H3 Critical Perspectives in Global Buddhism
GASC34H3 Texts and Learning in Classical South Asia
GASC40H3 Chinese Media and Politics
GASC41H3 Media and Popular Culture in East and Southeast Asia
GASC42H3 Film and Popular Culture in South Asia
GASC43H3 Colonialisms and Cultures in Modern East Asia
GASC45H3 Film and Popular Cultures in East Asia
GASC50H3 Comparative Studies of East Asian Legal Cultures
GASC51H3 Politics and Culture in Modern South Asia
GASC53H3 the Silk Routes
GASC57H3 China and the World
GASC74H3 A Tale of Three Cities: Introduction to Contemporary Art in China
GASD01H3 Senior Seminar: Topics in Global Asian Cultures
GASD02H3 Senior Seminar: Topics in Global Asian Societies
GASD03H3 Senior Seminar: Special Topics in Global Asia Studies
GASD20H3 Senior Seminar: Social Change and Gender Relations in Chinese Societies
GASD40H3 Senior Seminar: Issues in Chinese Media Studies
GASD46H3 Visual Encounter: The Meeting of Eastern and Western Art
GASD50H3 Senior Seminar: Social and Cultural Aspects of South Asian Societies
GASD56H3 'Coolies' and Others: Asian Labouring Diasporas in the British Empire
GASD58H3 Culture, Politics, and Society in Late Imperial China
GASD59H3 Law and Society in Chinese History
(VPHC58H3) Religion in the Arts: Seminar in Buddhism and Art
Humanities Co-operative

Overview of Changes:
The description and structure of the Calendar Entry for the Humanities Co-operative program is being updated and revised to include Social Sciences Co-operative. The changes to the structure of Humanities Co-operative include the deletion of all specified course requirements. The details are given below.

Existing Calendar Entry:

Program Supervisor: S.L. Helwig (416-287-7160) Email: humanities-coop-program-supervisor@utsc.utoronto.ca
Co-op Contact: askcoop@utsc.utoronto.ca

The Humanities Co-operative Program allows students to identify and consider relationships between academic and work environments, and combine their chosen humanities program with work experience that draws upon the knowledge and skills acquired during their studies.

Students are required to complete a Specialist Program offered in the humanities OR two Major Programs (at least one of which is in the humanities) and to complete the requirements of an Honours (20-credit) degree plus two work terms. For information on fees, work terms, and studying in the program, please see the Co-operative Programs section of this Calendar.

Note: For information on the Specialist (Co-operative) Program in Arts Management which operates separately from the Humanities Co-operative Program, please see the Visual and Performing Arts section of this Calendar.

Admissions

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 from the following list of courses plus a cumulative GPA of at least 2.5

1. Art History (Major): HUMA01H3 & 1 full credit in Art History
2. English (Specialist & Major): ENGB03H3, ENGB04H3 & ENGB05H3
3. French (Major): FREA01H3 & FREA02H3
4. History (Specialist & Major): [2.0 full credits from HISA04H3, HISA05H3, HISA06H3 or GAS0101H3, HISA07H3 or CLAA04H3] or 1 full credit at the B-level in HIS
5. Linguistics (Major): LINA01H3 & LINA02H3
6. Music & Culture (Major): HUMA01H3 & 1 full credit in Music
7. Psycholinguistics (Specialist): LINA01H3, LINA02H3, PSYA01H3 & PSYA02H3
8. Studio (Major): HUMA01H3 and 1 full credit in Studio
9. Theatre & Performance Studies (Major): HUMA01H3
10. Women's & Gender Studies (Major): WSTA01H3 & WSTA03H3
Program Requirements
The program requires eight four-month sessions of study and two 12-week work placements and normally requires four to five years to complete.

Course Requirements
Students in the Humanities Co-operative Program must complete the following:
1. All of the following 2.5 full credits:
   a. HUMA01H3 Exploring Key Questions in Humanities
   b. HUMA02H3 Inquiry and Reasoning in the Humanities Where appropriate, credits in this list may also count towards the completion of a Specialist, Major or Minor Program.
   c. 1.5 credits in English as follows:
      [ENGB03H3 Critical Thinking About Narrative
       and
       ENGB04H3 Critical Thinking About Poetry
       and
       ENGB05H3 Critical Writing about Literature]
2. In addition to the core credits, students must complete a Specialist Program offered in the humanities or two Major Programs (at least one of which is in the humanities) or one Major Program (in the humanities) and two Minor Programs (in any area). The following programs offered in the humanities may be chosen by students:

Specialist Programs
Art and Culture
English
French
History
Linguistics
Philosophy
Psycholinguistics

Major Programs
Art History
English
French
History
Linguistics
Music and Culture
Philosophy
Studio
Theatre & Performance Studies
Women's and Gender Studies

For the requirements of these programs, please see the program descriptions elsewhere in this Calendar. Students should consult with the Program Supervisor of the Co-operative Program.
in the humanities as well as with their discipline Program Supervisor(s) about their course selection.

3. Elective Courses
   Students are normally required to take a certain number of elective courses as a part of their Specialist or Major program. The purpose of the elective field is to allow students some flexibility in shaping a degree to their interests and future needs. Students are encouraged to use their elective credits to take courses outside their area(s) of concentration in order to broaden their understanding of contemporary issues and their historical context and to enhance their communication skills. It is strongly recommended that humanities Co-op students take either [VPAA10H3 "Introduction to Arts Management" and VPAA12H3 "Audience and Resource Development"] or [MGTA03H3 and MGTA04H3 "Introduction to Management I and II"] as elective choices to allow the student to gain an important contextual understanding of workplace issues and develop expected skills for the co-op placement environment. Students are encouraged to meet with the humanities Co-op Program Supervisor to discuss the appropriateness of each of the choices for their particular interests and needs.

For course descriptions please see the relevant program area(s) of the Calendar.

Courses in the first year of the program
The first year of study would normally consist of the full core requirements for Humanities Co-op, the required introductory courses from the Specialist, Major and/or Minor Program(s) (chosen in consultation with the Program Supervisor for that/those program(s), and electives. Students will also normally take the Arts & Science Co-op Work Term Preparation Course in the first fall session (note that this is a non credit course taken over and above the five credits in the first year).

Work Terms
Two work terms are an integral part of the co-op curriculum.
To be eligible for their first work term, students must be in good standing in the program (with a minimum 2.5 Cumulative Grade Point Average) and have completed at least 9.0 full credits, including at least 1.5 credits of the humanities Co-op core courses and at least 4.5 full credits toward the requirement of the Specialist Program or the humanities Major Program(s) in which they are enrolled. 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, students must be in good standing in the program (with a minimum 2.5 Cumulative Grade Point Average) and have completed at least 12.5 full credits, including all 2.0 core credits and at least 7.0 credits towards the requirements of their Specialist program or their Major Program(s). As well, they must have received a satisfactory evaluation of their performance and work term report for their first placement.
Proposed Calendar Entry:

Humanities and Social Sciences Co-operative

Co-op Contact: askcoop@utsc.utoronto.ca

Co-operative Programs are enrichment programs designed to integrate related, practical experience with academic studies. All co-op programs are either Specialist or Major Programs and may be taken only as part of a four-year degree. Major Co-op Programs must be combined with another Major program. The co-op credits associated with the successful completion of work-term requirements are additional to the 20.0 academic credits required for a degree. For this reason, some co-op programs may take up to five years to complete. No student may be enrolled in more than one co-op program and all co-op students must be registered at U of T Scarborough in order to maintain their co-op status.

The Humanities and Social Sciences Co-operative Program allows students to combine their chosen humanities or social sciences program with work experience that draws upon the knowledge and skills acquired during their studies and is applicable to future employment prospects. For a complete list of available programs please consult the Guide to Programs & Courses Offered in the Calendar. Programs in Visual and Performing Arts and in International Development Studies are not eligible for the Humanities and Social Sciences Co-op Program.

Notes:
1. For information on the Specialist (Co-operative) Program in Arts Management, which operates separately from the Humanities and Social Sciences Co-operative Program, please see the Visual and Performing Arts section of this Calendar.
2. For information on the Specialist (Co-operative) Program in International Development Studies (B.A.), which operates separately from the Humanities and Social Sciences Co-operative Program, please see the International Development Studies section of this Calendar.

Admissions

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. A POSt in a Humanities or Social Sciences Specialist or Major Program is required plus a cumulative GPA of at least 2.5.

Program Requirements

Overview
Co-op programs require at least eight four-month terms of full-time study, and the satisfactory completion of two four-month work terms. Work terms are evaluated by program faculty, the Co-
op Office, and the employer, and a grade of CR (credit)/NCR (no credit) is recorded on the transcript. The credits earned for successful work term completion are in addition to the 20.0 credits required for the degree.

Curriculum
Students in the Humanities and Social Sciences Co-op Program follow the course requirements of their chosen Specialist or Major program in the humanities or social sciences. In addition, they will take the Arts & Science Co-op Work Term Preparation Course COPD01 (also referred to as NWOW – Navigating the World of Work) – which includes multiple networking sessions, speaker panels and industry engagement activities – during their first year in co-op. Following successful completion of COPD01, students are required to take COPD03 (also referred to as RC Prep – Recruitment Cycle Preparation) – which covers resumes, cover letters, job interviews and work-term expectations – prior to their first work term.

(Note: COPD01 and COPD03 are non-credit courses taken over and above a full course load in the first year.)

Work Terms
The work terms are an integral part of the co-op curriculum. To be eligible for their first work term, students must be in good standing in their chosen program (with a minimum 2.5 Cumulative Grade Point Average) and have completed at least 9.0 or 10.0 full credits, as specified by the particular program, including a number of program specific credits towards the requirements of their Specialist Program or their Major Program(s). To be eligible for their second work term, students must have received a satisfactory evaluation of their performance and work term report for their first placement.

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

Note:
This entry will appear in two places in the Calendar – under Humanities and Social Sciences Co-operative, and under Social Sciences and Humanities Co-operative.

Specialist in Linguistics

Overview of Changes:
• Delete LINB23H3 Language, Power & Persuasion and LINC18H3 Writing Systems from Group A of requirement #2.
• Add LINC47H3 Special Topics in Linguistics: Pidgins and Creoles [double numbered with FREC47H to Group A of requirement #2.

Proposed Program Requirements:

Students must complete 12.0 full credits, including 4.0 full credits at the C- and D-level of which 1.0 full credit must be at the D-level as follows:
1. All of the following:
   - **LINA01H3** Introduction to Linguistics
   - **LINA02H3** Applications of Linguistics
   - **LINB04H3** Phonology I
   - **LINB06H3** Syntax I
   - **LINB09H3** Phonetics: The Study of Speech Sounds
   - **LINB13H3** Language Diversity and Language Universals
   - **LINC02H3** Phonology II
   - **LINC05H3** Morphology
   - **LINC11H3** Syntax II
   - **LINC12H3** Semantics
2. 3.0 full credits from the following, including at least 1.0 full credit from Group A and at least 1.0 full credit from Group B:
   **Group A**
   - **LINA10H3** Structure of American Sign Language
   - **LINB20H3** Sociolinguistics
   - **(LINB23H3)** Language, Power and Persuasion
   - **LINC06H3** Language Change
   - **LINC09H3** Phonetic Analysis
   - **LINC18H3** Writing Systems
   - **LINC27H3** Language and Ethnicity
   - **LINC28H3** Language and Gender
   - **LINC47H3** Special Topics in Linguistics: Pidgin and Creole Languages
   - **LIND29H3** Seminar in Sociolinguistic Methodologies
   **Group B**
   - **PLIB25H3** Second Language Acquisition
   - **PLIC15H3** Speech Perception
   - **PLIC24H3** First Language Acquisition
   - **PLIC55H3** Psycholinguistics
   - **PLIC65H3** Quantitative Methods in Linguistics
   - **PLID34H3** The Psycholinguistics of Reading
   - **PLID44H3** Acquisition of the Mental Lexicon
   - **PLID55H3** Disorders of Speech and Language
   - **(PLID65H3)** Seminar in Psycholinguistics
3. 2.0 full credits of language study in one or more languages, which may include FRE or LGG courses or language courses at another campus.
4. A further two full credits in any LIN, PLI, JAL or JLP courses.

**Minor in Media Studies**

*Overview of Changes:*
- Minor restructuring of requirements
- Addition of a new course MDSB06H [Asian Visual Culture and Media] to a list of options.
- Addition of double-numbered courses – MDSC40H and MDSC41H - to a list of options.
Proposed Program Requirements:

Students must complete 4.0 full credits from the courses below as follows:

1.0 credit as follows:
- HUMA01H3 Key Questions in the Humanities
- MDSA01H3 Introduction to Media Studies
- MDSA02H3 From Print to Digital: History of Media and Technology

1.0 credit from the following:
- MDSA02H3 From Print to Digital: History of Media and Technology
- MDSB05H3 Media and Globalization
- MDSB61H3 Critical Approaches to Digital Media

0.5 1.0 credit from the following:
- MDSB02H3 Language and Media
- MDSB03H3 Advertising and Consumer Culture
- MDSB06H3 Asian Visual Culture and Media (New)
- MDSB25H3 Political Economy of Media
- MDSB61H3 Critical Approaches to Digital Media
- MDSB62H3 Visual Culture
- VPAB05H3 Introduction to Contemporary Cultural Theory
- VPHB68H3 Art and the Everyday: Mass Culture and the Visual Arts

0.5 1.0 credit from the following:
- MDSC01H3 Theories and Methods in Media Studies
- MDSC02H3 Topics in Media, Identities and Politics
- MDSC40H3 Chinese Media and Politics
- MDSC41H3 Media and Popular Culture in East and Southeast Asia
- MDSC63H3 Legal and Ethical Issues in Media Studies
- MDSC64H3 Old Media, New: Film and New Technology
- MDSD01H3 Senior Seminar: Topics in Media and Arts
- MDSD02H3 Senior Seminar: Topics in Media and Society

1.0 0.5 credit from the following:
- Any C or D-level MDS course not listed above
- IDSC08H3 Media and Development
- GASC41H3 Media and Popular Culture in East and Southeast Asia
- GASC40H3 Chinese Media and Politics
- VPAA06H3 Visual and Performing Arts in the Digital Age
- VPAB05H3 Introduction to Contemporary Cultural Theory
- WSTB13H3 Women and the Media
- VPHB68H3 Art and the Everyday: Mass Culture and the Visual Arts
- ENGB70H3 Introduction to Cinema
- VPMB97H3 Film Music
ECMC20H3 Economics of the Media
SOCC44H3 Media and Society
GASC45H3 Film and Popular Cultures in East Asia
ENGC56H3 Literature and Media: From Page to Screen
VPMC97H3 Music, Technologies, Media

Major in Music and Culture

Overview of Changes:
• Remove VPMB99H from Requirement 3 of the program; add VPMB65H to Requirement 3 of the program.
• Remove IEEC72H and IEEC82H from Requirement 4 of the program.

Proposed Program Requirements:

Students are required to complete eight (8.0) credits as follows:

1. **HUMA01H3** Exploring Key Questions in Humanities
   - VPMA79H3 Introduction to Music and Culture I
   - VPMA80H3 Introduction to Music and Culture II
   - VPMA90H3 Materials of Music I
   - VPMA99H3 Music of the World's Peoples
   - VPMB90H3 Materials of Music II
2. One and one-half (1.5) credits from the sequence **VPMB80H3** to **VPMB82H3**.
3. One half (0.5) credit chosen from the following courses:
   - VPMB65H3 Music and Healing
   - VPMB75H3 Music in Islamic Cultures
   - VPMB77H3 Music in Religion and Ritual
   - VPMB78H3 Balinese Gamelan: Performance and Context
   - VPMB79H3 Performing Arts of Asia
   - (VPMB99H3) Popular Music in a Cross-Cultural Context
4. Two (2.0) credits chosen from **VPAC89H3** and the sequence **VPMC80H3** to **VPMC97H3**. Qualified students may substitute one half credit from **VPM80H3-VPM81H3**. Depending on topic, **IEEC71H3**, (IEEC72H3), **IEEC81H3** or (IEEC82H3) may also be substituted with the permission of the program supervisor.
5. One (1.0) full credit in Performance. Students must choose the graded option for this credit.
Minor in Music and Culture

Overview of Changes:
• Remove IEEC72H and IEEC82H from Requirement 3 of the program.

Proposed Program Requirements:
Students are required to complete 4.0 full credits as follows:

1. VPMA79H3 Introduction to Music and Culture I
   VPMA80H3 Introduction to Music and Culture II
   VPMA90H3 Materials of Music I
   VPMA99H3 Music of the World's Peoples
2. 1.0 credit from the sequence VPMB80H3 to VPMB82H3
3. 1.0 credit chosen from VPAC89H3 and the sequence VPMC80H3 to VPMC97H3.
   Depending on topic, IEEC71H3, (IEEC72H3), IEEC81H3 or (IEEC82H3) may also be substituted with the permission of the program supervisor.

Major (Joint) in New Media Studies

Overview of Changes:
• Clarifies course options by listing Media Studies courses in full.
• Addition of electives from other disciplines to broaden the program options.
• Addition of a new course – MDSB06H [Asian Visual Culture and Media].

Proposed Program Requirements:

Students must complete 9.0 full credits, of which at least 2.0 must be at the C- or D-level, as follows:

1. 2.0 credits as follows:
   MDSA01H3 Introduction to Media Studies
   MDSA02H3 History of Media and Technology
   MDSB61H3 Critical Approaches to Digital Media
   MDSB62H3 Visual Culture

2. 1.0 full credit from the following:
   MDSB02H3 Language and Media
   MDSB03H3 Advertising and Consumer Culture
   MDSB05H3 Media and Globalization
   MDSB06H3 Asian Visual Culture and Media (New)
   MDSB25H3 Political Economy of Media
   MDSC01H3 Theories and Methods in Media Studies
   MDSC02H3 Topics in Media, Identities and Politics
   MDSC63H3 Legal and Ethical Issues in Media Studies
MDSC40H3 Chinese Media and Politics
MDSC41H3 Media and Popular Culture in East and Southeast Asia
MDSC64H3 Old Media, New: Film and New Technology
MDSD01H3 Senior Seminar: Topics in Media and Arts
MDSD02H3 Senior Seminar: Topics in Media and Society

3. 0.5 credit from the following:
   CSCA08H3 Introduction to Computer Programming
   CSCA48H3 Introduction to Computer Science
   ECMC20H3 Economics of the Media
   ENGB70H3 Introduction to Cinema
   ENGC56H3 Literature and Media: From Page to Screen
   SOCB58H3 Sociology of Culture
   SOCC44H3 Media and Society
   VPAA05H3 Collaborations in the Visual and Performing Arts
   VPAA06H3 Visual and Performing Arts in the Digital Age
   VPAB05H3 Introduction to Contemporary Cultural Theory
   VPMC97H3 Music, Technologies, Media
   VPSA62H3 Foundation Studies in Studio
   VPSA72H3 Introduction to Photography
   VPSA73H3 Introduction to Video
   VPSA74H3 Introduction to Digital Studio Practice
   VPSB75H3 Photo-based Work
   VPSB76H3 Intermediate Video
   VPSB80H3 Digital Studio Practice
   VPSB82H3 Introduction to Web-based Work
   VPSB88H3 Introduction to Sound Art
   VPSB89H3 Introduction to Animation Techniques
   VPSC70H3 Theory and Practice: New Media in Studio
   WSTB13H3 Women and the Media

4. 4.5 full credits from Centennial College:
   **New Media Group 1.**
   Students will be eligible to enrol in New Media Group 1 courses after completing any 10 full credits including 2 full credits from category 1 and .5 credits from category 1 or 2.
   NMEA01H3 Digital Fundamentals
   NMEA02H3 Introduction to New Media Communications
   NMEA03H3 The Language of Design
   NMEA04H3 Interface Design, Navigation and Interaction I
   **New Media Group 2.**
   Students will be eligible to enrol in these courses after successfully completing all courses in New Media Group 1.
   NMEB05H3 Interface Design, Navigation and Interaction II
   NMEB06H3 Project Development and Presentation
   NMEB08H3 Application Software for Interactive Media
   NMEB09H3 Sound Design
   NMEB10H3 Design for New Media
5. 1.0 full credit:
   NMED01H3 New Media Senior Project
   NMED20H3 Theory and Practice of New Media

The following NME courses are taught at UTSC: NMED01H3 and NMED20H3. All other NME courses are taught at Centennial College.

Minor in Religion

Overview of Changes:
• Add AFSB01H [African Worldviews] to the list of options in the Religious Traditions in Global and Historical Contexts bin.

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

1. RLGA01H3 World Religions I
   and
   RLGA02H3 World Religions II
2. RLGB10H3 Introduction to the Study of Religion
3. RLGC13H3 Religious Diversity in Speech and Text
   or
   RLGC14H3 Religion and Globalization: Continuities and Transformations
4. 2.0 additional full credits from the following list, with at least 0.5 of a full credit at the C-or D-level:

   Comparative Themes/Theoretical Approaches
   RLGB02H3 Living Religions: Rituals and Experiences
   RLGC13H3 Religious Diversity in Speech and Text (if not taken as a required course)
   RLGC14H3 Religion and Globalization: Continuities and Transformations (if not taken as a required course)
   CLAC22H3 Religions of the Ancient Mediterranean
   HISD63H3 The Crusades: I
   HISD64H3 The Crusades: II
   ANTC31H3 Ritual and Religious Action
   ANTC33H3 Conceptualizing Religion
   SOCC21H3 Sociology of Religion

   Religious Traditions in Global and Historical Contexts
   RLG05H3 The Qur'an in Interpretive and Historical Context
   RLC06H3 Saints and Mystics in Buddhism
   RLG07H3 Topics in Buddhist Philosophy: Buddhist Ethics
   RLG09H3 Islam in Asia
RLGC10H3 Hinduism in South Asia and the Diaspora
AFSB01H3 African World Views (formerly AFSA02H3)
RLGC12H3 Contemporary Engaged Buddhist Movements in Asia
CLAA05H3 Ancient Mythology I: Mesopotamia and Egypt
CLAA06H3 Ancient Mythology II: Greece and Rome
GASC33H3 Critical Perspectives in Global Buddhism

Religion and Culture
GASB30H3 Asian Religions and Culture
VPHB67H3 Religion in the Arts: Buddhist Arts and Cultures
VPHB75H3 Religion in the Arts: Hinduism and Buddhism
VPHB76H3 Religion in the Arts: Judeo-Christian Traditions
VPMB77H3 Music in Religion and Ritual
VPMA99H3 Music of the World's Peoples
VPMB75H3 Music in Islamic Cultures
ENGC16H3 The Bible and Literature I
ENGC17H3 The Bible and Literature II

Advanced Topics in the Study of Religion
RLGC40H3 Selected Topics in the Study of Religion I
RLGC41H3 Selected Topics in the Study of Religion II
RLGD01H3 Supervised Readings in the Study of Religion
RLGD02H3 Seminar in Religion

Major in Studio

Overview of Changes:
• Remove the note: “Students may substitute one full credit from VPA or another
discipline with the PRIOR written permission of the Program Supervisor”.
• Restructure Requirements #6 and #7.
• Make this a limited enrolment program.

Proposed Program Requirements:

Enrolment to 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. **HUMA01H3** Exploring Key Questions in Humanities
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. An additional half credit at the C-level and one full credit at the D-level.  
   3.5 additional credits from courses in VPS, at least one full credit of which must be at the C-level.
7. 3.0 additional credits from courses in VPS. Students may substitute one full credit from VPA or another discipline with the PRIOR written permission of the Program Supervisor. One full credit at the D-level in VPS.

**Minor in Studio**

*Overview of Changes:*
- Make this a limited enrolment program.
- Remove HUMA01H from the requirements; add VPHA46H to the requirements.
- Additional minor re-structuring of existing requirements.

*Proposed Program Requirements:*

Enrolment to the Minor 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.

*Program Requirements*

Students are required to complete a total of four full credits as follows:

1. **VPSA62H3** Foundation Studies in Studio  
   **VPSA63H3** But Why Is It Art?
2. **VPSA63H3** But Why Is It Art?
3. **HUMA01H3** Exploring Key Questions in Humanities  
   **VPHA46H3** Ways of Seeing: Introduction to Art Histories
4. **VPSA70H3** Drawing I
5. 1.0 credits at the B-level in VPS
6. At least one half credit from 0.5 credits from the following:  
   **VPSC66H3** Theory and Practice: Two-Dimensional Work
Major in TAPS

Overview of Changes:

- Minor restructuring of Requirement 7 of the program.
  - **DELETE:** VPSC68H3 Theory and Practice: Time-based Work, **VPSC69H3** Theory and Practice: Art in a Globalizing World, **VPSC70H3** Theory and Practice: New Media in Studio
  - **ADD:** VPSC80H3 Theory and Practice: Time-based Work

Proposed Program Requirements:

Students must complete 8.0 full credits as follows:

1. **HUMA01H3** Exploring Key Questions in Humanities
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
4. **VPDB10H3** Studies in Theatre History I: From the Greeks to 1642
   - **VPDB11H3** Theatre History I: From Ritual to Renaissance
   - **VPDB12H3** Studies in Modern and Contemporary Theatre
5. **ENGC26H3** Drama: Tragedy
6. **ENGC50H3** 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 VPA or another discipline with the Supervisor's written permission. The following courses are particularly recommended:
Major in Women’s and Gender Studies

Overview of Changes:

- Delete POLC76H3 and POLC77H3 from the list of options in Cluster #3 of Requirement #7 of the program. Add POLC94H to the list of options in Cluster #3 of Requirement #7 of the program.
- Add GASD20H to the list of options in Cluster #4 of Requirement #7 of the program.

Proposed Program Requirements:

Students must complete seven full credits as follows:

1. WSTA01H3 Introduction to Women's and Gender Studies
   and
   WSTA03H3 Introduction to Theories of Feminism
2. WSTB05H3 Fundamentals of Research in Women's and Gender Studies
3. WSTB11H3 Race, Class and Gender
4. WSTC02H3 Applied Research in Women's and Gender Studies
5. WSTD01H3 Senior Project in Women's and Gender Studies
   or
   WSTD03H3 Senior Seminar in Health, Sexualities and the Gendered Body/Representations and Constructions of Women and Gender
   or
   WSTD04H3 Senior Seminar in Gender, Equity and Human Rights/Gender, Local and Global Communities
or
One D-level elective cross-listed with WST, with the approval of the program supervisor
6. One further credit in WST
7. 3.0 credits from the list below of which at least 1.0 must be at the C- or D-level. (Students should check course descriptions for prerequisites.):

Note: Not all courses in #7 are offered every year. Please note that courses have been organized into four thematic clusters to assist students in planning - there is no program requirement related to the clusters.

Cluster #1: Health, Sexualities, and the Gendered Body
- ANTC15H3 Genders and Sexualities
- ANTD01H3 The Body in Culture and Society
- ENGC76H3/(VPAC47H3) The Body in Modernity: Theories and Representations
- ENGC77H3/(VPAC48H3) The Body in Contemporary Culture: Theories and Representations
- GGND10H3 Health and Sexuality
- HLTC02H3 Women and Health: Past and Present
- PSYD18H3 Psychology of Gender
- PSYD22H3 Socialization Processes
- WSTB12H3 Women: Issues of Violence and Safety

Cluster #2: Representations and Constructions of Women and Gender
- ENGB50H3 Women and Literature: Forging a Tradition
- ENGB51H3 Gender and Genre
- ENGC34H3 Early Modern Women and Literature: 1500-1700
- ENGC51H3 Contemporary Arab Women Writers
- ENGD80H3 Women and Canadian Writing
- LINC28H3 Language and Gender
- PHLB13H3 Philosophy and Feminism
- PSYD18H3 Psychology of Gender
- SOC922H3 Sociology of Gender
- SOCC08H3 Gender and Information Technology
- VPHB57H3 Women in the Arts: Hot Mamas, Amazons, and Madonnas
- VPMC83H3 Music and Gender
- WSTB13H3 Women and the Media
- WSTC12H3 Writing the Self: Global Women's Autobiographies
- WSTC16H3 Criminal Women: Gender, Justice and the Media
- WSTC22H3 Women and Film

Cluster #3: Gender, Equity, and Human Rights
- GASB20H3 Gender and Social Institutions in Asia
- MGTC23H3 Diversity in the Workplace
- POLC76H3 Women in Political and Social Thought
- POLC77H3 Women in Political and Social Thought II
- POLC94H Globalization, Gender and Development
- SOCC09H3 Sociology of Gender and Work
- SOCC10H3 Gendered Selves, Gendered Lives and Inequalities
- SOCC38H3 Gender and Education
Cluster #4: Gender, Local and Global Communities, and Diaspora

ANTC14H3 Feminism and Anthropology
GASC20H3 Gendering Global Asia
GASD20H3 Senior Seminar: Social Change and Gender Relations in Chinese Societies
GGRD09H3 Feminist Geographies
HISC45H3 Immigrant and Race Relations in Canadian History
HISD30H3 Gendering America
HISD46H3 Selected Topics in Canadian Women's History
HISD56H3 'Cools' and Others: Asian Labouring Diasporas in the British Empire
(SOCB48H3) Family and Society
SOCB49H3 Sociology of Family
SOC124H3 Changing Family Life in Canada
SOC129H3 Special Topics in Sociology of Family
(WSTB15H3) Women in the Cyberspace: Transnational Feminist Networks and Activism
WSTC10H3 Women and Development
WSTC11H3 Applied Studies in Women and Development
WSTC13H3 Women, Gender and Islam
WSTC19H3 Gender in East Asian Science and Technology
WSTC20H3 Women and Environments
WSTC21H3 Gender, Health, Science in Transnational Perspective

[NOTE: these minor program modifications also indirectly impact the Minor in Women’s and Gender Studies – see Requirement #4 which is given as: “Two further credits in Women's and Gender Studies at the B, C, or D-level and/or from the list of courses in other disciplines which deal with women's/gender issues provided in #7 in the Major Program; at least one of these credits must be at the C or D-level.”]
Major in Economics for Management Studies

Overview of Changes:

• Add MATA31H3 (Calculus I for Mathematical Sciences) as equivalent to MATA30H.

Proposed Program Requirements:

The Program consists of six full credits in Economics for Management Studies, one full credit in Mathematics and one full credit in Humanities. The Economics courses must include:

- ECMA04H3 & ECMA06H3
- ECMB02H3 & ECMB06H3
- [ECMB11H3 & ECMB12H3] or (ECMB09Y3)
- ECMC02H3 & ECMC06H3
- ECMC11H3

Plus 1.5 full credits chosen from the courses in Economics for Management Studies including at least one at the C-level (not including ECMC91H3, ECMC92H3, ECMC93H3). Students must also complete MATA32H3 & MATA33H3 (or equivalent) [MATA32H3 & MATA33H3] or [MATA30H3/A31H3 & MATA35H3/A36H3/A37H3] and one full credit in Humanities.

Note: Students who take ECMA01H3 and ECMA05H3 and then decide to apply for this program will be permitted to substitute [ECMA01H3 & ECMA05H3] for [ECMA04H3 & ECMA06H3]. However, these students will be required to complete [MATA32H3 & MATA33H3] or equivalent [MATA32H3 & MATA33H3] or [MATA30H3/A31H3 & MATA35H3/A36H3/A37H3] before registering for ECMB02H3 and ECMB06H3.

Specialist in Management
Specialist in Management and Accounting
Specialist in Management and Human Resources
Specialist in Strategic Management

Overview of Changes:

• Add MATA31H3 (Calculus I for Mathematical Sciences) as one of the course equivalents to MATA32H3 & MATA33H3 in Requirement # 2 of the programs.

Proposed Program Requirements:

Specialist in Management

2. [MATA32H3 & MATA33H3] strongly recommended or [MATA30H3/A31 & MATA35H3/A36H3/A37H3]
Specialist in Management and Accounting
2. \([\text{MATA32H3} \& \text{MATA33H3}]\) strongly recommended or \([\text{MATA30H3/A31} \& \text{MATA35H3/A36H3/A37H3}]\)

Specialist in Management and Human Resources
2. \([\text{MATA32H3} \& \text{MATA33H3}]\) strongly recommended or \([\text{MATA30H3/A31} \& \text{MATA35H3/A36H3/A37H3}]\)

Specialist in Strategic Management
2. \([\text{MATA32H3} \& \text{MATA33H3}]\) strongly recommended or \([\text{MATA30H3/A31} \& \text{MATA35H3/A36H3/A37H3}]\)

Specialist in Management and Finance

Overview of Changes:
- Add MATA31H3 (Calculus I for Mathematical Sciences) as one of the course equivalents to MATA32H3 & MATA33H3 in Requirement #2 of the programs.
- Add MGTC77H3 (existing), MGTD73H3 (new) and MGTD77H3 (new) to the list of electives that students may take to fulfill Requirement #6 of the program.

Proposed Program Requirements:

2. \([\text{MATA32H3} \& \text{MATA33H3}]\) strongly recommended or \([\text{MATA30H3/A31} \& \text{MATA35H3/A36H3/A37H3}]\)

6. At least 2.0 full credits from MGTC70H3, MGTC76H3, MGTC77H3, MGTD71H3, MGTD72H3, MGTD73H3, MGTD78H3, MGTD77H3, ECMC48H3

Specialist in Management and Marketing

Overview of Changes:
- Add MATA31H3 (Calculus I for Mathematical Sciences) as one of the course equivalents to MATA32H3 & MATA33H3 in Requirement #2 of the programs.
- Restructuring of Requirement #5 of the program.

Proposed Program Requirements:

2. \([\text{MATA32H3} \& \text{MATA33H3}]\) strongly recommended or \([\text{MATA30H3/A31} \& \text{MATA35H3/A36H3/A37H3}]\)

Specialist in Management & IT

*Overview of Changes:*

- Add to the program requirements: CSCA67H, CSCB09H, CSCC01H, CSCB20H, ECMB11, ECMB12. Remove from program requirements: CSCA65H, CSCB63H, STAB52H, STAB57H, CSCC40H, CSCC43H, CSCC63H, CSCC73. Reduce the total number of credits from 17.5 to 17.0
- Add MATA31H3 (Calculus I for Mathematical Sciences) as one of the course equivalents to MATA32H3 & MATA33H3 in Requirement # 2 of the programs.

*Proposed Program Requirements:*

Program Requirements: The Program requires the completion of the following minimum requirements as part of a twenty credit degree B.B.A.:

1. MGTA03H, MGTA04H, ECMA04H, ECMA06H, CSA08H, CSA48H, CS65H, CS67H
2. [MATA32H & MATA33H] or [MATA30H, A31 & MATA37H]
4. MGTB90H & MGTC90H
5. CSB40H, CSB01H, CSB43H, CSB20H [CSB63H or CSB73H], MGTC09H, MGTC74H
6. CSB50H or MGTC59H
7. 1.0 credits at the D-level in MGT, ECM or CSC courses.

DEPARTMENT OF PHYSICAL & ENVIRONMENTAL SCIENCES

Specialist in Biological Chemistry

*Overview of Changes:*

- Removal of PHYA22H3 from the list of First Year courses
- Inclusion of an additional 0.5 FCE from the following list: MATA23H3, PSCB57H3 or STAB22H3.
- Replacement of PSCD02H3 in the fourth year with CHMD79H3.
- Requirement that at least one of CHMD69H3 or CHMD79H3 is taken in the fourth year.
- Removal of BIOD95H3, BIOD98Y3, BIOD99Y3 and PSCD10H3 from the list of possible D-level research courses.
- Restricting the remaining D-level courses to CHM courses.

*Proposed Program Requirements:*

2012-13 Undergraduate Curriculum Changes Approved by Governance. 30 March 2012.
The program requires the completion of the following 15.0 full credits:

**First Year:**
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  
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]  
PHYA10H3 Introduction to Physics IA  
[PHYA21H3 Introduction to Physics IIA or PHYA22H3 Introduction to Physics IIB]

**Note:** MATB41H3 is a prerequisite for CHMC21H3 and MATA36H3/MATA37H3 is a prerequisite for MATB41H3. MATA36H3/MATA37H3 is strongly recommended over MATA35H3 in order that future course selection is not compromised.

**Second Year:**
BIOB10H3 Cell Biology  
BIOB11H3 Molecular Aspect of Cellular and Genetic Processes  
BIOB12H3 Laboratory for Cell and Molecular Biology  
CHMB31H3 Introduction to Inorganic Chemistry  
CHMB41H3 Organic Chemistry I  
CHMB42H3 Organic Chemistry II

**Second or Third Year:**
CHMB16H3 Techniques in Analytical Chemistry  
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics  
CHMB21H3 Chemical Structure and Spectroscopy  
and  
0.5 full credit from the following:  
MATA23H3 Linear Algebra I  
PSCB57H3 Introduction to Scientific Computing  
STAB22H3 Statistics I

**Third Year:**
BIOC12H3 Biochemistry I: Proteins and Enzymes  
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism  
BIOC23H3 Practical Approaches to Biochemistry  
CHMC47H3 Bio-Organic Chemistry

**Third or Fourth Year:**
CHMC11H3 Principles of Analytical Instrumentation  
CHMC31Y3 Intermediate Inorganic Chemistry  
[CHMC41H3 Organic Reaction Mechanisms or CHMC42H3 Organic Synthesis]
Fourth Year:

**PSCD02H3** Current Questions in Mathematics and Science  
**CHMD79H3** Topics in Biological Chemistry  
At least 0.5 credits from the following:  
1.5 full credits in D-level or 400-level CHM courses including:  
at least 0.5 full credit from the following:  
**BIOD95H3** Supervised Study in Biology  
**BIOD98Y3** Directed Research in Biology  
**BIOD99Y3** Directed Research in Biology  
**CHMD90Y3** Directed Research  
**CHMD91H3** Directed Research  
**CHMD92H3** Advanced Organic Chemistry Lab Course  

*and* at least 0.5 full credit from the following:  
**CHMD69H3** Bioinorganic Chemistry  
**CHMD71H3** Pharmaceutical Chemistry  
**PSCD10H3** Physical Sciences Project  
And, in appropriate years 1.0 full credit (1.5 if **BIOD95H3**, **CHMD91H3**, **CHMD92H3** or **PSCD10H3** is taken) from the following list:  
**MATB41H3** Techniques of Calculus of Several Variables I  
**CHMB55H3** Environmental Chemistry  
**PSCB57H3** Introduction to Scientific Computing  
Or any other C- and D-level Chemistry or PSC courses and C- or D-level BIO courses for which [**BIOB10H3** & **BIOB11H3**] is a prerequisite.

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**Specialist in Chemistry**

**Overview of Changes:**  
• Removal of PHYA22H3 from the First Year requirements  
• Replacing **MATA30H3**, **MATA36H3** or **MATA37H3** in First Year with [[**MATA30H3** & **MATA36H3**] OR [**MATA31H3** & **MATA37H3**]]  
• A new B-level half course in biochemistry (CHMB62) has been added.  
• The C- and D-level requirements in year four have been separated out in the calendar so that 0.5 FCE at the C-level and 2.5 FCE at the D-level are taken in the fourth year.  
• The list of possible C-level courses that can be taken in the fourth year (currently listed as “CHMC41H, CHMC42H or CHMC47H”) has been replaced with “any C-level CHM course not already taken.”  
• The option for “Other D-level courses upon approval of Program Supervisor” has been removed.  
• The requirement of 1.0 FCE from PSCD10H, CHMD90Y, CHMD91H, and CHMD92H has been changed to “at least 0.5 FCE from CHMD90Y, CHMD91H, and CHMD92H.”
Proposed Program Requirements:
The Program requires completion of 14.0 full credits as follows:

First Year:
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 or MATA37H3 Calculus II for Mathematical Sciences]
[[MATA30H3 Calculus I for Biological and Physical Sciences and MATA36H3 Calculus II for Physical Sciences] or [MATA31H3 Calculus I for Mathematical Sciences and MATA37H3 Calculus II for Mathematical Sciences]]
PHYA10H3 Introduction to Physics IA
[PHYA21H3 Introduction to Physics IIA or PHYA22H3 Introduction to Physics IIB]
and
1.0 full credit chosen from:
ASTA01H3 Introduction to Astronomy and Astrophysics I: The Sun and Planets
ASTA02H3 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions
EESA05H3 Environmental Hazards
EESA06H3 Introduction to Planet Earth
MATA23H3 Linear Algebra I
PSCB57H3 Introduction to Scientific Computing
STAB22H3 Statistics I

Second Year:
CHMB16H3 Techniques in Analytical Chemistry
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB62H3 Introductory Biochemistry
MABT41H3 Techniques of Calculus of Several Variables I

Third Year:
CHMC11H3 Principles of Analytical Instrumentation
CHMC16H3 Analytical Instrumentation
[CHMC20H3 Intermediate Physical Chemistry or CHMC21H3 Topics in Biophysical Chemistry]
CHMC31Y3 Intermediate Inorganic Chemistry
[CHMC41H3 Organic Reaction Mechanisms or CHMC42H3 Organic Synthesis]

Fourth Year:
PSCD02H3 Current Questions in Mathematics and Science
and
0.5 full credit in any C-level or 300-level CHM course not already taken
and
2.0 full credits in any D-level or 400-level CHM course including at least 0.5 full credit chosen from:
CHMD90Y3 Directed Research
CHMD91H3 Directed Research or CHMD92H3 Advanced Organic Chemistry Lab Course
2.0 full credits chosen from:
[CHMC41H3 Organic Reaction Mechanisms or CHMC42H3 Organic Synthesis]
CHMC47H3 Bio-Organic Chemistry
Any D-level or 400-level CHM course
Other D-level courses upon approval of Program Supervisor
and
1.0 full credit chosen from:
CHMD90Y3 Directed Research
CHMD91H3 Directed Research or CHMD92H3 Advanced Organic Chemistry Lab Course
PSCD10H3 Physical Sciences Project

Major in Chemistry

Overview of Changes:
• Remove PHYA11H3 and PHYA22H3 as options from the First Year Requirements of the program.

Proposed Program Requirements:
Students should complete the following 7.5 full credits:

First Year:
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
MATA30H3 Calculus I for Biological and Physical Sciences
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]
[PHYA10H3 Introduction to Physics IA or PHYA11H3 Introduction to Physics IB]
[PHYA21H3 Introduction to Physics IIA or PHYA22H3 Introduction to Physics IIB]
Note: PHY110Y is not an acceptable substitute for [PHYA10H3, PHYA11H3 & PHYA21H3, PHYA22H3]

Specialist in Environmental Geoscience

Overview of Changes:
• Addition of 3 new C-level half courses: EESC20H Geochemistry, EESC35H Mineralogy, EESC36H Petrology.
• Deletion of 2 courses: EESC32H Mineralogy and Petrology and EESD32 Contaminant Fate in Terrestrial Environments.
• A new D-level course EESD19H Professional Development Seminars in Geoscience replaces EESC15H Research in Environmental Science.

*Proposed Program Requirements:*
Total requirements: 15.0 full credits of which 1.0 must be at the D-level as follows:

**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
  - **MATA35H3** Calculus II for Biological Sciences or **MATA36H3** Calculus II for Physical Sciences or **MATA37H3** Calculus II for Mathematical Sciences
- **PHYA10H3** Introduction to Physics IA or **PHYA11H3** Introduction to Physics IB

**Second Year:**
- **BIOB50H3** Ecology
- **CHMB55H3** Environmental Chemistry
- **EESB02H3** Principles of Geomorphology
- **EESB03H3** Principles of Climatology
- **EESB04H3** Principles of Hydrology
- **EESB05H3** Principles of Soil Science
- **EESB15H3** Earth History
- **PSCB57H3** Introduction to Scientific Computing
- **STAB22H3** Statistics I

**Third Year:**
- **EESC03H3** Geographic Information Systems and Remote Sensing
- **EESC04H3** Biodiversity and Biogeography
- **EESC07H3** Groundwater
- **EESC13H3** Environmental Impact Assessment and Auditing
- **EESC15H3** Research in Environmental Science
- **EESC20H** Geochemistry
- **EESC31H3** Principles of Glacial Sedimentology and Stratigraphy
- **EESC35H** Mineralogy
- **EESC36H** Petrology
- **EESC32H** Mineralogy and Petrology
  and
- 0.5 credit from the following:
  - **EESC18H3** The Great Lakes: An Introduction to Physical Limnology
  - **EESC19H3** Marine Systems
Fourth Year:
1.0 full credit from the following:
EESC21H3 Urban Environmental Problems of the Greater Toronto Area
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD09H3 Research Project in Environmental Science
EESD10Y3 Research Project in Environmental Science
EESD11H3 Process Hydrology
EESD15H3 Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments
EESD19H3 Professional Development Seminars in Geoscience
EESD32H3 Contaminant Fate in Terrestrial Environments and
1.0 full credit from any other EES courses
Strongly recommended: EESC16H3 Field Camp I or EESD07H3 Field Camp II

Specialist in Environmental Biology
Specialist in Environmental Chemistry
Specialist in Environmental Physics

Overview of Changes:
• Addition of the new C-level half course - EESC20H Geochemistry; deletion of EESD32H Contaminant Fate in Terrestrial Environments.

Proposed Program Requirements:

Specialist in Environmental Biology

Total requirements: 14.5 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
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]
[PHYA10H3 Introduction to Physics 1A or PHYA11H3 Introduction to Physics IB]

Second Year:
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB52H3 Ecology and Evolutionary Biology Laboratory
EESB15H3 Earth History
EESB16H3 Feeding Humans - The Cost to the Planet
STAB22H3 Statistics I
[PSCB57H3 Introduction to Scientific Computing or CSCA08H3 Introduction to Computer Programming]

and

1.0 full credit from the following:
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
CHMB55H3 Environmental Chemistry

Third and Fourth Years:

2.5 credits from:
EESC03H3 Geographic Information Systems and Remote Sensing
EESC04H3 Biodiversity and Biogeography
EESC30H3 Microbial Biogeochemistry
EESC13H3 Environmental Impact Assessment and Auditing
EESC15H3 Research in Environmental Science

2.0 credits from:
BIOC51H3 Tropical Biodiversity Field Course
BIOC52H3 Ecology Field Course
BIOC58H3 Biological Consequences of Global Change
BIOC59H3 Advanced Population Ecology
BIOC61H3 Community Ecology and Environment Biology
BIOC65H3 Environmental Toxicology
BIOC62H3 The Role of Zoos in Conservation
BIOC63H3 Conservation Biology
BIOC67H3 Inter-University Biology Field Course

1.0 credit from:
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD15H3 Cleaning Up our Mess: Remediation of Terrestrial and Aquatic Environments
EESC20H3 Geochemistry
EESD22H3 Contaminant Fate in Terrestrial Environments
EESD09H3 Research Project in Environmental Science
EESD10Y3 Research Project in Environmental Sciences
BIOD52H3 Special Topics in Biodiversity and Systematics
BIOD60H3 Spatial Ecology
BIOD66H3 Causes and Consequences of Biodiversity
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Research Project in Biology
**Specialist in Environmental Chemistry**

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
  - [**MATA35H3** Calculus II for Biological Sciences or **MATA36H3** Calculus II for Physical Sciences or **MATA37H3** Calculus II for Mathematical Sciences]
- **PHYA10H3** Introduction to Physics IA or **PHYA11H3** Introduction to Physics IB

**Second Year:**
- **BIOB50H3** Ecology
- **CHMB20H3** Chemical Thermodynamics and Elementary Kinetics
- **CHMB21H3** Chemical Structure and Spectroscopy
- **CHMB41H3** Organic Chemistry I
- **CHMB42H3** Organic Chemistry II
- **CHMB55H3** Environmental Chemistry
- **STAB22H3** Statistics I

and

1.0 full credit from the following:
- **EESB03H3** Principles of Climatology
- **EESB04H3** Principles of Hydrology
- **EESB05H3** Principles of Soil Science
- **EESB15H3** Earth History

**Third Year:**
- **EESC03H3** Geographic Information Systems and Remote Sensing
- **EESC07H3** Groundwater
- **EESC13H3** Environmental Impact Assessment and Auditing
- **EESC15H3** Research in Environmental Science
- **CHMB16H3** Techniques in Analytical Chemistry
- **CHMB31H3** Introduction to Inorganic Chemistry
- **PSCB57H3** Introduction to Scientific Computing

**Fourth Year:**
- **EESD02H3** Contaminant Hydrogeology
- **EESD15H3** Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments
- **EESC20H3** Geochemistry
- **EESD32H3** Contaminant Fate in Terrestrial Environments
- **CHMC11H3** Principles of Analytic Instrumentation
and
0.5 credit from the following:
CHMC21H3 Topics in Biophysical Chemistry
CHMC31Y3 Intermediate Inorganic Chemistry
CHMC41H3 Intermediate Organic Chemistry
CHMC47H3 Bio-Organic Chemistry

Specialist in Environmental Physics

Total Requirements: 15.5 full credits

First Year:
PHYA10H3 Introduction to Physics IA
PHYA21H3 Introduction to Physics IIA
MATA30H3 Calculus I for Biological and Physical Sciences
MATA36H3 Calculus II for Physical Sciences
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
MATA23H3 Linear Algebra I

Second Year:
(PHYB20H3) Vibrations and Waves
PHYB54H3 Mechanics: From Oscillations to Chaos
EESB02H3 Principles of Geomorphology
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
MATB41H3 Techniques of Calculus of Several Variables I
MATB42H3 Techniques of Calculus of Several Variables II

Third Year:
PHYB10H3 Intermediate Physics Laboratory I
(PHYB11H3) Intermediate Physics Laboratory II
PHYC11H3 Intermediate Physics Laboratory II
PHYB21H3 Electricity and Magnetism
PSCB57H3 Introduction to Scientific Computing
STAB22H3 Statistics I
EESB15H3 Earth History
EESC03H3 Geographic Information Systems and Remote Sensing
EESC15H3 Research in Environmental Science
EESC07H3 Groundwater
[EESC18H3 The Great Lakes: An Introduction to Physical Limnology or EESC19H3 Marine Systems]
Fourth Year:
EESC13H3 Environmental Impact Assessment and Auditing
PSCD01H3 The Physical Sciences in Contemporary Society
And
1.5 full credits from:
CHMB55H3 Environmental Chemistry
EESC21H3 Urban Environmental Problems of the Greater Toronto Area
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD09H3 Research Project in Environmental Science
EESD10Y3 Research Project in Environmental Science
EESD11H3 Process Hydrology
EESC20H Geochemistry
EESD32H3 Contaminant Fate in Terrestrial Environments
PSCD10H3 Physical Sciences Project

Major in Environmental Studies

Overview of changes:
• Addition of a new course, ESTB01H [Introduction to Environmental Studies], as recommended by external reviewer.
• Minor re-structuring of program.

Current Requirements and Calendar Copy:

Completion of 8.5 credits as follows:

FIRST YEAR. 2.5 F.C.E.
EESA01H Introduction to Environmental Science
[ECMA01H Introduction to Microeconomics or ECMA05H Introduction to Macroeconomics]

One of
ANTB01H Political Ecology
POLA51H Critical Issues of Canadian Democracy
POLA83H Exploring Globalization
GGRA03H Cities and Environments

Two of
EESA05H Environmental Hazards
EESA07H Water
EESA09H Wind
EESA10H Human health and the environment
EESA11H Environmental Pollution
EESA06H Introduction to Planet Earth
SECOND YEAR. 1.5 F.C.E.
STAB22H Statistics I
IDSB02H Development and Environment
GGRB20H Environmental Conservation and Sustainable Development

THIRD YEAR. 3.0 F.C.E.
EESC34H Sustainability in Practice (new course)

2.0 F.C.E. from
EESC13H Environmental Impact Assessment and Auditing
POLC53H Canadian Environmental Politics (if instructor grants permission)
EESB16H Feeding Humans: The Cost to the Planet
HLTA01H Plagues and People
EESC03H Geographic Information Systems and Remote Sensing
EESC21H Environmental Problems of the Greater Toronto Area
ANTC41H Environmental Stress, Culture and Human Adaptability
POLD89H Global Environmental Politics

FOURTH YEAR. 2.0 F.C.E.
EESD16H Project Management in Environmental Studies (new)
EESD17Y Cohort Capstone Course in Environmental Studies- team project (new course, full year)
EESD18H Environmental Studies Seminar Series (new course)

Proposed Requirements and Calendar Copy:

Completion of 8.5 credits as follows:

Core Courses: 2.5 F.C.E.
EESA01H Introduction to Environmental Science
[ECMA01H Introduction to Microeconomics or ECMA05H Introduction to Macroeconomics]
ESTB01H Introduction to Environmental Studies (new)

0.5 full credit chosen from:
ANTB01H Political Ecology
GGRA03H Cities and Environments
POLA51H Critical Issues of Canadian Democracy
POLA83H Exploring Globalization
POLB50H Canada's Political Institutions
POLB80H Introduction to International Relations

0.5 full credit chosen from:
EESA05H Environmental Hazards
EESA06H Introduction to Planet Earth
EESA07H Water
EESA09H Wind
EESA10H Human health and the environment
EESA11H Environmental Pollution

**Foundations & Skills: 3.5 F.C.E.**
IDSBO2H Environment and Development
GGRB20H Environmental Conservation
STAB22H Statistics I

*2.0 full credit chosen from:
ANTC41H Environmental Stress, Culture and Human Adaptability
EESB16H Feeding Humans: The Cost to the Planet
EESC03H GIS and Remote Sensing
EESC13H Environmental Impact Assessment and Auditing
EESC21H Environmental Problems of the GTA
HLTA01H Plagues and People
POLC53H Canadian Environmental Politics
POLD89H Global Environmental Politics

**Capstone & Applications: 2.5 F.C.E.**
ESTC34H Sustainability in Practice
ESTD16H Project Management in Environmental Studies
ESTD17Y Cohort Capstone Course in Environmental Studies
ESTD18H Environmental Studies Seminar Series

**Specialist in Physical and Mathematical Sciences**

*Overview of Changes:*

- In the *Second or Third Year* of the program, STAB57H An Introduction to Statistics will be replaced with STAB52H An Introduction to Probability.
- From the “Third or Fourth Year” requirements:
  - Delete: CSCC36H, CSCC50H and CSCC51H
  - Add: CSCC37H, CSCD37H

*Proposed Program Requirements:*

Total Credits: 15.5

**First Year:**

- **PHYA10H3** Introduction to Physics IA
- **PHYA21H3** Introduction to Physics IIA
- **CHMA10H3** Introductory Chemistry I: Structure and Bonding
- **CHMA11H3** Introductory Chemistry II: Reactions and Mechanisms
- **MATA30H3** Calculus I for Biological and Physical Sciences
- **MATA23H3** Linear Algebra I
- **MATA36H3** Calculus II for Physical Sciences

*or*
### MATA37H3 Calculus II for Mathematical Sciences

### Second Year
- **PHYB10H3** Intermediate Physics Laboratory I
- **PHYB56H3** Introduction to Quantum Physics
- **PHYB21H3** Electricity and Magnetism
- **PHYB52H3** Thermal Physics
- **MATB24H3** Linear Algebra II
- **MATB41H3** Techniques of the Calculus of Several Variables I
- **MATB42H3** Techniques of the Calculus of Several Variables II
- **MATB44H3** Differential Equations I

### Second or Third Year
- **PHYB54H3** Mechanics: From Oscillations to Chaos
- **ASTB23H3** Astrophysics of Stars, Galaxies and the Universe
- **CHMB20H3** Chemical Thermodynamics and Elementary Kinetics
- **CHMB21H3** Chemical Structure and Spectroscopy
- **MATB61H3** Linear Programming
- **PSCB57H3** Introduction to Scientific Computing
- **CSCB58H3** Computer Organization
- **STAB52H** An Introduction to Probability
- **STAB57H3** An Introduction to Statistics

### Third or Fourth Year
A total of 4.0 credits from:
- **ASTC25H3** Astrophysics of Planetary Systems
- **MATC34H3** Complex Variables
- **MATC46H3** Differential Equations II
- **PHYC50H3** Electromagnetic Theory
- **PHYC56H3** Quantum Mechanics I
- **PHYC11H3** Intermediate Physics Laboratory II
- **PHYC54H3** Classical Mechanics
- **PHYD37H3** Introduction to Fluid Mechanics
- **PHYD38H3** Introduction to Nonlinear Systems and Chaos

- **CSCC36H3** Numerical Methods or
- **CSCC37H3** Introduction to Numerical Algorithms for Computational Mathematics
- **CSCD37H3** Analysis of Numerical Algorithms for Computational Mathematics

### Additional Options
- **PSCD02H3** Current Questions in Mathematics and Science
- **PHYD01H3** Physics Research Project or
- **PHYD11H3** Computational Physics Project or
- **PHYD72H3** Supervised Reading in Physics or
- **ASTD01H3** Astrophysics Research Project or
- **ASTD02H3** Supervised Reading in Astrophysics or
- **PSCD10H3** Physical Sciences Project
DEPARTMENT OF PSYCHOLOGY

Specialist in Neuroscience  
Major in Neuroscience

Overview of Changes:

- Delete BIOB30H Mammalian Physiology I from requirement #2 of the Specialist, Specialist Co-op and Major programs in Neuroscience. Add BIOC32H Human Physiology I to requirement #3 of the Specialist, Specialist Co-op and Major programs in Neuroscience.
- Add BIOC14H3 Genes, Environment and Behaviour and BIOD19H3 Epigenetics in Health and Disease (existing courses) to requirement #4 of the Specialist, Specialist Co-op and Major programs in Neuroscience.

Note: the changes to the Specialist in Neuroscience also impact the Specialist (Co-op) in Neuroscience.

Proposed Program Requirements:

SPECIALIST PROGRAM IN NEUROSCIENCE (SCIENCE)

Program Requirements
The Program requires completion of 14.0 credits:

1. The following 4.0 credits:
   - 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 or (MATA20H3) Calculus A]
   - [PHYA10H3 Physics IA or PHYA11H3 Physics IB]
   - PSYA01H3 Introductory Psychology: Part I
   - PSYA02H3 Introductory Psychology: Part II

2. The following 4.0 credits:
   - BIOB10H3 Cell Biology
   - BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
   - BIOB30H3 Mammalian Physiology I
   - CHMB41H3 Organic Chemistry I
   - CHMB42H3 Organic Chemistry II
   - NROB60H3 Neuroanatomy Laboratory
   - PSYB65H3 Human Brain & Behaviour
   - [STAB22H3 Statistics I or PSYB07H3 Data Analysis in Psychology]

3. The following 5.0 credits:
   - BIOC12H3 Biochemistry I: Proteins & Enzymes
   - BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC32H Human Physiology I
BIOC33H3 Mammalian Physiology II: Lecture & Laboratory
NROC34H3 Neuroethology (Invertebrate Neurobiology)
NROC61H3 Learning & Motivation
NROC63H3 Neuroscience Laboratory
NROC64H3 Sensory & Motor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain
PSYC08H3 Advanced Data Analysis in Psychology
PSYC62H3 Drugs & the Brain

4. 1.0 credit from the following:
BIOC14H3 Genes, Environment and Behaviour
BIOD19H3 Epigenetics in Health and Disease
BOLID27H3 Molecular Endocrinology
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD60H3 Current Topics in Neuroscience
NROD63H3 Advanced Neuroscience Laboratory
NROD66H3 Drug Addiction
NROD67H3 Psychobiology of Aging
PSYD17H3 Social Neuroscience
PSYD33H3 Current Topics in Abnormal Psychology
PSYD66H3 Current Topics in Human Brain & Behaviour

Note: 0.5 credit of NROD98Y3, Thesis in Neuroscience, may also be counted towards Requirement 4.

MAJOR PROGRAM IN NEUROSCIENCE (SCIENCE)

Program Requirements

The Program requires completion of 8.0 credits. Students who wish to combine the Major Program in Neuroscience with the Major in Biology or the Major in Mental Health Studies or the Major in Psychology are advised that they must present 12.0 distinct credits to receive certification of the completion of both programs. Consultation with the respective Program Supervisors in the selection of credits is recommended.

The following indicates the required credits for the Major Program in Neuroscience:

1. The following 3.0 credits:
   BIAO1H3 Life on Earth: Unifying Principles
   BIAO2H3 Life on Earth: Form, Function and Interactions
   CHMA10H3 Introductory Chemistry I: Structure and Bonding
   CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
   PSYA01H3 Introductory Psychology: Part
   PSYA02H3 Introductory Psychology: Part II

2. The following 2.0 2.5 credits:
   BIOB10H3 Cell Biology
   BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB30H3 Mammalian Physiology I
NROB60H3 Neuroanatomy Laboratory
PSYB65H3 Human Brain and Behaviour
[STAB22H3 Statistics I or PSYB07H3 Data Analysis in Psychology]
3. The following 1.0 - 1.5 credits:
   BIOC32H Human Physiology I
   NROC61H3 Learning and Motivation
   NROC64H3 Sensory and Motor Systems
4. 1.0 credit from the following:
   BIOC14H3 Genes, Environment and Behaviour
   BIOD19H3 Epigenetics in Health and Disease
   BIOC33H3 Mammalian Physiology II: Lecture & Laboratory
   BIOD27H3 Molecular Endocrinology
   BIOD45H3 Animal Communication
   BIOD65H3 Pathologies of the Nervous System
   NROC34H3 Neuroethology
   NROC63H3 Neuroscience Laboratory
   NROC69H3 Synaptic Organization & Physiology of the Brain
   NROC90H3 Supervised Study in Neuroscience
   NROD60H3 Current Topics in Neuroscience
   NROD63H3 Advanced Neuroscience Laboratory
   NROD66H3 Drug Addiction
   NROD67H3 Psychobiology of Aging
   PSYC62H3 Drugs and the Brain
   PSYD17H3 Social Neuroscience
   PSYD33H3 Current Topics in Abnormal Psychology
   PSYD66H3 Current Topics in Human Brain & Behaviour

Specialist in Psychology/Specialist (Co-op) in Psychology

Overview of Changes:
• Add PSYD11H3 Psychology of Interpersonal Relationships & PSYD12H3 Social Psychology of Self (both are existing courses) to requirement #7a.) Group One.

Proposed Program Requirements:

#7.a) Credits at the D-level (1.0 credit)
Students must take a 0.5 credit from each of the groupings listed below:
   a. Group One
      PSYD11H3 Psychology of Interpersonal Relationships
      PSYD12H3 Social Psychology of the Self
      PSYD15H3 Current Topics in Social Psychology
      PSYD16H3 Critical Analysis in Social Psychology
      PSYD18H3 Psychology of Gender
      PSYD20H3 Current Topics in Developmental Psychology
Specialist/Specialist Co-op in Mental Health Studies

Overview of Changes:
• Add PSYD32H3 Personality Disorders (existing course) to requirement #8 of the program.

Proposed Program Requirements:
#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

DEPARTMENT OF SOCIAL SCIENCES

Specialist in Anthropology

Overview of Changes:
• Reduce the number of courses in requirement #2 from 1.5 to 1.0 credits.
• Increase the number of courses required under requirement #3 from 9.5 to 10.0, and the number of C- or D-level credits needed from 4.0 to 5.0.
• Minor re-structuring of requirement #3 for students in the Socio-Cultural stream.

Proposed Program Requirements:

Program Requirements
The Program requires completion of 12.0 full credits, as indicated below.

1. ANTA01H3 Introduction to Anthropology: Becoming Human
   ANTA02H3 Introduction to Anthropology: Society, Culture and Language
2. At least 4.5 1.0 credits from among the following:
   ANTB14H3 Biological Anthropology: Beginnings
   ANTB15H3 Contemporary Human Evolution and Variation
   ANTB19H3 Ethnography and the Comparative Study of Human Societies
   ANTB20H3 Culture, Politics and Globalization
3. 9.5 10.0 credits at the B-level or above, of which 4.0 5.0 credits should be at the C- or D-level, including at least 1.0 credit at the D-level.

Note: Students pursuing the Socio-Cultural stream must ensure that as part of Requirement 3, they complete:
a. At least 1.0 credit in area studies courses \textbf{ANTB05H3, ANTB16H3, ANTB18H3, ANTB65H3, ANTC89H3}

b. \textbf{ANTD07H3}

c. At least 0.5 credit in Ethnographic methods: \textbf{ANTC60H3} \& or \textbf{ANTD05H3}

d. At least 1.0 credit from among \textbf{ANTD05H3, ANTD06H3, ANTD15H3, ANTD24H3}

e. Courses in Anthropological Linguistics (i.e. \textbf{LINC27H3} \& \textbf{IEEC11H3}) may be counted towards fulfilling Requirement 3.

\textbf{Note:} For a B.Sc. at least 7.5 of the credits required for the program must be science credits.

\textbf{Major in Anthropology}

\textit{Overview of Changes:}

- Reduce requirement \#2 from 1.5 to 1.0 credits.
- Increase requirement \#3 from 5.5 to 6.0 credits.
- Minor re-structuring of requirement \#3 for students in the Socio-Cultural stream.

\textit{Proposed Program Requirements:}

The Program requires completion of 8.0 full credits in Anthropology including:

1. \textbf{ANTA01H3} Introduction to Anthropology: Becoming Human
   \textbf{ANTA02H3} Introduction to Anthropology: Society, Culture and Language

2. At least 1.0 credits from among the following:
   \textbf{ANTB14H3} Biological Anthropology: Beginnings
   \textbf{ANTB15H3} Contemporary Human Evolution and Variation
   \textbf{ANTB19H3} Ethnography and the Comparative Study of Human Societies
   \textbf{ANTB20H3} Culture, Politics and Globalization

3. 6.0 credits at the B-level or above, of which at least 3.0 credits must be at the C- or D-level.

\textbf{Note:} Students pursuing the Socio-Cultural stream must ensure that as part of Requirement 3, they complete:

a. At least 1 \textit{FCE} credit in area studies courses \textbf{ANTB05H3, ANTB16H3, ANTB18H3, ANTB65H3, ANTC89H3, ANTD07H3}

b. \textbf{ANTC60H3}

c. At least 0.5 credit from among: \textbf{ANTD05H3, ANTD06H3, ANTD15H3, ANTD24H3}

d. Courses in Anthropological Linguistics (i.e. \textbf{LINC27H3} \& \textbf{IEEC11H3}) may be counted towards fulfilling Requirement 3.

\textbf{Note:} For a B.Sc., at least 5.5 of the credits required for the program must be science credits.
Minor In Anthropology

Overview of Changes:

- Reduce requirement #2 from 1.5 to 1.0
- Increase requirement #3 from 1.5 to 2.0

Proposed Program Requirements:

The Program requires completion of 4.0 full credits as follows:

1. **ANTA01H3** Introduction to Anthropology: Becoming Human
   **ANTA02H3** Introduction to Anthropology: Society, Culture and Language
2. At least 1.0 credits from among the following:
   **ANTB14H3** Biological Anthropology: Beginnings
   **ANTB15H3** Contemporary Human Evolution and Variation
   **ANTB19H3** Ethnography and the Comparative Study of Human Societies
   **ANTB20H3** Culture, Politics and Globalization
3. At least 2.0 additional credits in Anthropology, of which 1.0 credit must be at the C- or D-level.

Major in City Studies

Overview of Changes:

- Move **POLB50H** from requirement #1 to requirement #3.
- Introduce two new B-level courses in City Studies (CITB03 Social Planning and Community development and CITB04 City Politics) as part of the program requirement 2. Core Courses.
- Increase program requirement 2. Core Courses to 1.5 full credits (from currently 1 full credit). Reduce program requirement 3. Fundamentals of City Studies to 1.5 full credits (from currently 2 full credits).
- Add five new C-level courses in City Studies (CIT12 Local Government and Management, CITC14 Environmental Planning, CITC15 Municipal Finance, CITC16 Regional Governance and Planning, CITC17 Civic Engagement in Urban Politics) as electives in program requirement 5. Applications.

Proposed Program Requirements and Calendar copy:

A pre-professional Major Program for students interested in career paths that may be city-related. Students acquire a combination of conceptual, methodological, and critical skills relevant in a variety of professional fields including city planning, real estate development, transportation, housing, community development, urban governance and city management. The Major Program in City Studies is multidisciplinary: it is designed to give students the opportunity to see how they might apply ideas about cities from the social sciences and kindred disciplines in their field of professional interest. The Program also offers preparation for students interested in pursuing graduate education in a field of study related to cities.
Guidelines for 1st year course selection

Students intending to complete a program in City Studies should take at least 1.0 full credit from the courses listed in Requirement 1 of the Major Program in City Studies within their first 4.0 credits.

Guidelines for Major Program completion

The City Studies curriculum has three areas of concentration: (1) City-Building, (2) Community Development and (3) City Governance. Major students are welcome to take courses in more than one area of concentration and are encouraged to take at least three of the City Studies core courses, CITB02 Foundations of City Studies (required for all Major students in City Studies), CITB01 Canadian Cities and Planning, CITB03 Social Planning and Community Development or CITCB04 City Politics. These core courses cover foundational concepts of the program and are considered essential preparation for upper level courses.

<table>
<thead>
<tr>
<th>City Building</th>
<th>Community Development</th>
<th>City Governance</th>
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<tbody>
<tr>
<td>CITB01 Canadian Cities and Planning</td>
<td>CITB03 Social Planning and Community Development</td>
<td>CITB04 City Politics</td>
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<tr>
<td>CITC03 Real Estate and the City</td>
<td>CITC01 Urban Communities and Neighbourhoods Case Study</td>
<td>CITC12 Local Government and Management</td>
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<tr>
<td>CITC04 Municipal and Planning Law in Ontario</td>
<td>CITC02 Learning in Community Service</td>
<td>CITC15 Municipal Finance</td>
</tr>
<tr>
<td>CITC14 Environmental Planning</td>
<td>CITC07 Urban Social Policy</td>
<td>CITC16 Regional Governance and Planning</td>
</tr>
<tr>
<td>CITC18 Transportation Policy Analysis</td>
<td>CITC08 Cities and Community Development</td>
<td>CITC17 Civic Engagement in Urban Politics</td>
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Note: It is Department policy that students without the prerequisite will be removed from the course. Students should carefully check the prerequisites required for particular B- and C-level courses.

Note: That some upper-level courses (e.g., SOC and ECM) are part of limited enrolment programs, with first preference in these courses going to students enrolled in those programs.

I. Introduction to Social Science Thought (1.0 full credit from among the following):

ANTAO1H3 Introduction to Anthropology: Becoming Human
ANTAO2H3 Introduction to Anthropology: Culture, Society and Language
HLTA01H3 Plagues and Peoples
[POLA51H3 Critical Issues of Canadian Democracy or POLB50H3 Canada's Political Institutions]
POLA83H3 Exploring Globalization
POLA84H3 Globalization and Governance
SOCA01H3 Introduction to Sociology I
SOCA02H3 Introduction to Sociology II GGRA02H3 The Geography of Global Processes
GGRA03H3 Cities and Environments
[ECMA01H3 Introduction to Microeconomics or ECMA04H3 Introduction to Microeconomics:}
A Mathematical Approach]  
[ECMA05H3 Introduction to Macroeconomics or ECMA06H3 Introduction to Macroeconomics: A Mathematical Approach]  

2. Core courses (1.5 credits)  
CITB02H3 Foundations of City Studies  
and  
1.0 credits from among the following:  
   CITB01H3 Canadian Cities and Planning  
   CITB03H3 Social Planning and Community Development  
   CITB04H3 City Politics  

3. City Studies Fundamentals of (at least 1.5 full credits from among the following):  
DTSB01H3 Introduction to Diaspora and Transnational Studies I  
DTSB02H3 Introduction to Diaspora and Transnational Studies II  
[EESA05H3 Environmental Hazards or EESA06H3 Introduction to Planet Earth]  
GGRB05H3 Urban Geography  
GGRB13H3 Social Geography  
GGRB28H3 Geographies of Disease  
HLTB04H3 Health and the Urban Environment  
POLB50H3 Canada’s Political Institutions  
SOCB44H3 Sociology of Cities and Urban Life  
(SOCB45H3) Urban Sociology: Micro-Analysis  
WSTB12H3 Women: Issues of Violence and Safety  

4. Methods (at least 1 full credit from among the following):  
[SOCB06H3 Social Statistics or STAB22H3 Statistics I]  
[GGRA30H3 GIS and Empirical Reasoning or  
(EESA08H3) GIS for the Beginning Student or  
EESC03H3 Geographic Information Systems and Remote Sensing]  
SOCD23H3 Practicum in Qualitative Research Methods  
SOCD31H3 Practicum in Quantitative Research Methods  

5. Applications (at least 2.0 full credits from among the following):  
(ANTC39H3) Foundation and Theoretical Issues in Anthropological Demography  
ANTC40H3 Methods and Analysis in Anthropological Demography  
CITC01H3 Urban Communities and Neighbourhoods Case Study: East Scarborough  
CITC02H3 Learning In Community Service  
CITC03H3 Real Estate and the City  
CITC04H3 Municipal and Planning Law in Ontario  
CITC07H3 Urban Social Policy  
CITC08H3 Cities and Community Development  
CITC10H3 Selected Issues in City Studies  
CITC12H3 Local Government and Management  
CITC14H3 Environmental Planning  
CITC15H3 Municipal Finance  
CITC16H3 Regional Governance and Planning
Major in Human Geography

Overview of Changes:

- In Requirement #1 (Theory and concepts in Human Geography): increase the total number of required credits from 2.0 to 2.5 as follows: add GGRA02H3 as a required course; delete GGRB20H3 from a list of options; add GGRB21H (new) and GGRB55H (new) to a list of options.
- In Requirement #2 (Methods): add GGRB30H (new) and GGRC31H (new) to a list of options.
- In Requirement #3 (Applications): add the following courses to a list of options: GGRC24H (new), GGRC26H (new), GGRC28H (new), GGRC40H (new), GGRC44H (formerly GGRB20H), GGRC48H (new), GGRC56H (new), GGRD08H (new), GGRD25H (new) to a list of options;
- In Requirement #4: reduce the total number of required credits from 2.0 to 1.5 credits; remove GGRA02H as an option, thereby making GGRA03H a requirement (GGRA02H becomes a required course in Requirement #1).
Proposed Program Requirements:

A Major Program for students interested in Human Geography as an academic discipline. This Program equips students with the knowledge and skills needed to understand contemporary social science thought in the context of the communities, societies, and economies formed by human populations, and the ways in which location, landscape, and spatial context shape (and are shaped by) social structures, functioning, and behaviour.

Guidelines for 1st year course selection:
Students intending to complete the Major Program in Human Geography should take at least one of are required to take GGRA02H3 and are advised to take one of GGRA03H3 and or GGRA30H3 in first year.

Guidelines for Major Program completion:
Courses in the Major Program in Human Geography are divided into three main subdisciplinary streams: Urban Geography, Social/Cultural Geography and Environmental Geography. Major students are welcome to take courses in more than one area of concentration and are advised to take all three of the related Theory and Concepts courses, GGRB05H3 Urban Geography, GGRB13H3 Social Geography, and GGRB20H3 Environmental Conservation and Sustainable Development and GGRB21H3 Environments and Environmentalisms.

Courses marked with an asterisk (*) are foundational courses. Courses described as foundational cover core concepts in the discipline and are considered essential prerequisites for upper level courses. You should take these in your first or second year of study.

Human Geography Major Students are advised to focus after second year in one of the three following concentrations: Urban, Social/Cultural, and Environmental.

**URBAN Geography Concentration**
GGRA03H3 Cities and Environments
GGRB05H3 Urban Geography
GGRC04H3 Urban Residential Geography
GGRC10H3 Urbanization and Development
GGRC11H3 Current Topics in Urban Geography
GGRC13H3 Urban Political Geography
GGRC27H3 Location and Spatial Development
GGRC33H3 The Toronto Region
GGRC40H3 Megacities and Global Urbanization
GGRC45H3 Local Geographies of Globalization
GGRC48H3 Geographies of Urban Poverty
GGRD25H3 Research Seminar in Urban Spaces

**SOCIAL/CULTURAL Geography Concentration**
GGRA02H3 The Geography of Global Processes
GGRB13H3 Social Geography
GGRB28H3 Geographies of Disease
GGRB55H3 Geographies of Religion and Secularism
GGRC02H3 Population Geography
GGRC04H3 Urban Residential Geography
GGRC09H3 Current Topics in Social Geography
GGRC24H3 Socio-Natures and the Cultural Politics of ‘The Environment’
GGRC31H3 Qualitative Geographical Methods: Place and Ethnography
GGRC45H3 Local Geographies of Globalization
GGRC56H3 Spaces of Travel: Unsettling Migration, Tourism, and Everyday Mobilities
GGRD09H3 Feminist Geographies
GGRD10H3 Health and Sexuality
GGRD19H3 Spaces of Multiraciality: Critical Mixed Race Theory

**ENVIRONMENTAL Geography Concentration**
GGRA02H3 The Geography of Global Processes
GGRA03H3 Cities and Environments
GGRB21H3 Environments and Environmentalisms
GGRC21H3 Current Topics in Environmental Geography
GGRC22H3 Political Ecology Theory and Applications
GGRC24H3 Socio-Natures and the Cultural Politics of ‘The Environment’
GGRC25H3 Land Reform and Development
GGRC26H3 Geographies of Environmental Governance
GGRC28H3 Indigenous Environmental Knowledges
GGRC29H3 Agriculture, Environment, and Development
GGRC44H3 Environmental Conservation and Sustainable Development
GGRD08H3 Research Seminar in Environmental Geography

**Program Requirements**
The Major Program in Human Geography requires a total of 7.0 full credits as follows:

1. **Theory and Concepts in Human Geography**
   
   *GGRA02H3 The Geography of Global Processes*
   
   *GGRB02H3 The Logic of Geographical Thought*

   **and**

   1.5 credits from:
   
   *GGRB05H3 Urban Geography*
   
   *GGRB13H3 Social Geography*
   
   **GGRB20H3 Environmental Conservation and Sustainable Development**
   
   *GGRB21H3 Environments and Environmentalisms*
   
   **GGRB28H3 Geographies of Disease**
   
   **GGRB55H3 Geographies of Religion and Secularism**

2. **Methods (1.0 credit)**

   **GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning**

   **and one of:**

   GGRB30 Socio-Spatial Analysis (Intermediate GIS)
   
   GGRC31 Qualitative Geographical Methods: Place and Ethnography
   
   **ANTC35H3 Quantitative Methods in Anthropology**
   
   **ECMB11H3 Quantitative Methods in Economics I**
   
   GGR270H Introductory Analytical Methods
   
   GGR271H Social Research Methods

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*2012-13 Undergraduate Curriculum Changes Approved by Governance. 30 March 2012.*
PSYB07H3 Data Analysis in Psychology
SOCB06H3 Social Statistics
STAB22H3 Statistics I

3. Applications (at least 2.0 credits from among the following):
   GGRC01H3 Supervised Readings in Human Geography
   GGRC02H3 Population Geography
   GGRC04H3 Urban Residential Geography
   GGRC09H3 Current Topics in Social Geography
   GGRC10H3 Urbanization and Development
   GGRC11H3 Current Topics in Urban Geography
   GGRC13H3 Urban Political Geography
   GGRC21H3 Current Topics in Environmental Geography
   GGRC22H3 Political Ecology Theory and Applications
   GGRC24H3 Socio-Natures and the Cultural Politics of ‘The Environment’
   GGRC25H3 Land Reform and Development
   GGRC26H3 Geographies of Environmental Governance
   GGRC27H3 Location and Spatial Development
   GGRC28H3 Indigenous Environmental Knowledges
   GGRC29H3 Agriculture, Environment, and Development
   GGRC33H3 The Toronto Region
   GGRC40H3 Megacities and Global Urbanization
   GGRC41H3 Current Topics in Human Geography
   GGRC44H3 Environmental Conservation and Sustainable Development
   GGRC45H3 Local Geographies of Globalization
   GGRC48H3 Geographies of Urban Poverty
   GGRC56H3 Spaces of Travel: Unsettling Migration, Tourism and Everyday Mobilities
   GGRD01H3 Supervised Research Project
   GGRD08H3 Research Seminar in Environmental Geography
   GGRD09H3 Feminist Geographies
   GGRD10H3 Health and Sexuality
   GGRD11H3 Advanced Geographical Theory and Methods
   GGRD19H3 Spaces of Multiraciality: Critical Mixed Race Theory
   GGRD25H3 Research Seminar in Urban Spaces

4. 2.0 1.5 additional credits to be selected from GGRA02H3, GGRA03H3 and the courses listed in Requirements 1 and 3 above.
Major in Physical and Human Geography

Overview of Changes:
• In Requirement #3 delete GGRB20H and add GGRC44H.

Proposed Program Requirements:

Program Requirements
The Major Program in Physical and Human Geography requires the completion of a total of 8.0 full credits of which 4.0 credits are to be EES courses, and 4.0 credits are to be GGR courses. Among these 8.0 credits, the student must include:

1. **EESA01H3, EESA06H3, GGRA02H3 & GGRA03H3**
2. At least 1.5 credits from among **EESB02H3, EESB03H3, EESB04H3, EESB05H3, & EESB15H3**
3. At least 1.5 credits from among **[CITB01H3 or (GGRB06H3)], GGRB05H3, CITC03H3, GGRB13H3, GGRB20H3 & GGRB28H3 & GGRC44H3**
4. At least 1.0 credit at the C- or D-level from among EES courses
5. At least 1.0 credit at the C- or D-level from among GGR courses
6. At least one additional 0.5 credit with a GGR prefix
7. At least one additional 0.5 credit with an EES prefix

Major in Health Studies
Minor in Health Studies

Overview of Changes:
• Items 2, 3, 4, and 5 under Program Requirements for the Major Program in Health Studies are being modified to reflect the new proposed courses.
• Items 1 and 2 under Program Requirements for the Minor Program in Health Studies are being modified for the same reason. These changes will ensure that Health Studies students develop an understanding of basic research designs and methodology skills essential in the health field.

Proposed Program Requirements:

MAJOR PROGRAM IN HEALTH STUDIES (ARTS / SCIENCE)

Program Requirements
This program requires a minimum of 7.5 full credits as follows:

**Note:** A single course may be applied to one requirement only even if it is listed more than once.

1. Background Courses and Methodology
   1.5 credits from one of the following groups:
   - **[ANTA01H3 & ANTA02H3 & ANTC60H3]**
   - or
   - **[BIOA01H3 & BIOA02H3 & BIOB10H3]**
   - or
[ECMA01H3 & ECMA05H3 & ECMB01H3]
or
[GGRA02H3 & GGRA03H3 & GGRB05H3]
or
[PSYA01H3 & PSYA02H3 & PSYB01H3]
or
[SOCA01H3 & SOCA02H3 & SOCB05H3]

2. Specialized Methods in Health Studies (1.5 credit as follows)
   - HLTA10H3 Introduction to Research in Health Studies
   - HLTB15H3 Introduction to Health Research Methodology
   - HLTB10H3 Introduction to Quantitative and Qualitative Research Methods in Health Studies
   - HLTC15H3 Introduction to Quantitative and Qualitative Research Methods in Health Studies
   - [HLTD10H3 Advanced Quantitative Health Research Methodology or HLTD11H3 Advanced Qualitative Health Research Methodology]

   Note: HLTB10H3 will be offered for the first time in 2011/2012 and will require HLTA10H3 as a prerequisite.

3. Introduction to Health (3.0 2.5 credits)
   1.5 credits as follows
   - HLTA01H3 Plagues & People
   - HLTB03H3 Foundations in Health Studies
   - [HLTB01H3 Health, Aging & the Life Cycle or HLTB02H3 Issues in Child Health & Development or HLTB04H3 Health & the Urban Environment]
   and
   1.0 credits from:
   - ANTB14H3 Biological Anthropology: Beginnings
   - ANTB15H3 Contemporary Human Evolution and Variation
   - ANTB19H3 Ethnography and the Comparative Study of Human Societies
   - ANTB20H3 Culture, Politics and Globalization
   - ANTB64H3 The Anthropology of Food: Consuming Passions
   - EESA10H3 Human Health and the Environment
   - GGRB28H3 Geographies of Disease
   - HLTB01H3 Health, Aging and the Life Cycle
   - HLTB02H3 Issues in Child Health and Development
   - HLTB04H3 Health and the Urban Environment
   - IDSB04H3 International Health Policy Analysis
   - PHLB09H3 Biomedical Ethics
   - PSYB32H3 Abnormal Psychology
   - PSYB65H3 Human Brain and Behaviour

4. Advanced Health Courses
   At least 2.0 credits from:
   - ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
   - ANTC62H3 Medical Anthropology: Biological and Demographic Perspectives
   - ANTC63H3 The Anthropology of Food: Human Needs
   - ANTC67H3 Foundations of Epidemiology
   - ANTC68H3 Deconstructing Epidemics
   - ANTD01H3 The Body in Culture and Society
**ANTD17H3** Medical Osteology: Public Health Perspectives on Human Skeletal Health
**ANTD23H3** Ethnomedicine
**ANTD25H3** Primatology: Public Health Perspectives on Zoonotic Diseases
**BIOC17H3** Microbiology I: The Bacterial Cell
**BIOC21H3** Vertebrate Histology: Cells and Tissues
**BGYC22H3** Vertebrate Histology: Organs
**ECMC34H3** Economics of Health Care
**GGRD10H3** Health and Sexuality
**HLTC01H3** Directed Research on Health Services and Institutions
**HLTC02H3** Women and Health: Past and Present
**HLTC03H3** The Politics of Canadian Health Policy
**HLTC05H3** Social Determinants of Health
**HLTC07H3** Patterns of Health, Disease, and Injuries
**HLTC20H3** Introduction to Health Economics
**HLTD01H3** Directed Readings in Health Studies
**HLTD02H3** Health Research Seminar
**IDSC11H3** Issues in International Health
**NROD67H3** Psychobiology of Aging

5. 0.5 credit from:

- **HLTC01H3** Directed Research on Health Services and Institutions
- **HLTC02H3** Women and Health: Past and Present
- **HLTC03H3** The Politics of Canadian Health Policy
- **HLTC05H3** Social Determinants of Health
- **HLTC07H3** Patterns of Health, Disease, and Injuries
- **HLTC20H3** Introduction to Health Economics
- **HLTD01H3** Directed Readings in Health Studies
- **HLTD02H3** Health Research Seminar
- **ANTC67H3** Foundations of Epidemiology
- **ANTC68H3** Deconstructing Epidemics

6. For this program, no more than 4.0 credits can be counted from any single course prefix (e.g., ANT) other than HLT.

7. For the Major in Health Studies alone to qualify for B.Sc. Major, at least 5.0 credits taken to complete the program must carry science credit. These include **HLTB01H3**, **HLTB02H3**, any Anthropology option listed as a science credit in the Anthropology section of the Calendar and any option in Biology, Environmental Science, Neuroscience, Psychology, and Statistics.

**MINOR PROGRAM IN HEALTH STUDIES (ARTS)**

**Program Requirements**

This program requires 4 full credits as follows:

1. Introduction to Health (2.5 credits)
2. 1.5 full credits as follows:
   - **HLTA01H3** Plagues and Peoples
   - **HLTB03H3** Foundations in Health Studies
   - **HLTC07H3** Patterns of Health, Disease, and Injuries

3. 1.0 full credits from:
Specialist in International Development Studies (Arts)

Overview of Changes:

- Addition of two new courses:
  - IDSC14 The Political Economy of Food is being added to the Economics of Development stream; and
  - IDSC17 Development, Citizen Action and Social Change in the Global South is being added to the Politics and Policy stream

[NOTE: Changes will also impact the Major Program in International Development Studies (Arts) – see requirement 4 of the program, which states:

4. **Specialized Courses** (4.5 full credits)
   4.5 credits from the courses listed in Requirement 4 of the B.A. version of the Specialist Program in IDS with at least 1.0 credit from each of TWO of the clusters.]
Proposed Program Requirements:

This program requires 13.0 full credits of which at least 6.0 must be at the C- or D-level including at least 1.0 at the D-level.

1. **Introduction to International Development Studies** (2.0 full credits as follows)
   - IDSA01H3 Introduction to International Development Studies
   - [ECMA01H3 Introduction to Microeconomics or ECMA04H3 Introduction to Microeconomics: A Mathematical Approach]
   - [ECMA05H3 Introduction to Macroeconomics or ECMA06H3 Introduction to Macroeconomics: A Mathematical Approach]
   - EESA01H3 Introduction to Environmental Science

2. **Core courses in International Development** (3.5 full credits as follows)
   - IDSB01H3 Political Economy of International Development
   - IDSB02H3 Development and Environment
   - IDSB04H3 International Health Policy Analysis
   - IDSB06H3 Equity, Ethics and Justice in International Development
   - POLB90H3 Comparative Development in International Perspective
   - POLB91H3 Comparative Development In Political Perspective
   - IDSD02H3 Supervised Research in International Development

3. **Methods for International Development Studies** (1.5 full credits as follows)
   - IDSC04H3 Project Management I
   - 0.5 FCE in Statistics/Quantitative Methods (one of ANTC35H3, ECMB11H3, GGRA30H3, SOCB06H3, PSYB07H3 & STAB22H3)
   - 0.5 FCE in Qualitative Methods (one of ANTB19H3, GGRB02H3, SOCB05H3, HLTA10H3, POLC78H3)

4. **Specialized Courses: Approaches to International Development** (6.0 full credits)
   - A minimum of 2.0 full credits must be chosen from two different clusters below for a total or 4.0 full credits. The other 2.0 full credits may be selected from any of the courses listed below, and IDSC07H3, IDSC10H3, IDSD14H3 and IDSD15H3 may also be counted towards the completion of this requirement.

**Media and Development**
- GASC40H3 Chinese Media and Politics
- GASC41H3 Media and Popular Culture in East and Southeast Asia
- IDSB10H3 Knowledge and Communication for Development
- IDSC08H3 Media and Development
- MDSB05H3 Media and Globalization
- MDSB61H3 Critical Approaches to Digital Media
- SOCC08H3 Gender and Information Technology
- SOCC44H3 Media and Society

**Culture and Society**
- ANTB19H3 Ethnography and the Comparative Study of Human Societies
- ANTB20H3 Culture, Politics and Globalization
- ANTB64H3 The Anthropology of Food: Consuming Passions

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2012-13 Undergraduate Curriculum Changes Approved by Governance. 30 March 2012.
ANTC10H3 Anthropological Perspectives on Development
ANTC34H3 The Anthropology of Transnationalism
(ANTC55H3) Muslim Societies
ANTC66H3 Anthropology of Tourism
DTSB01H3 Diaspora and Transnationalism Studies I
DTSB02H3 Diaspora and Transnationalism Studies II
HISB51H3 Twentieth Century Africa
HISB57H3 Sub-Continental Histories: South Asia in the World
(HISC53H3) Topics in Asian History
HISC55H3 War and Society in Modern Africa
IDSC08H3 Media and Development
SOCC25H3 Ethnicity, Race and Migration
SOCC34H3 Migrations & Transnationalisms

Economics of Development
ANTC19H3 Producing People and Things: Economics and Social Life
ECMB36H3 Economic Aspects of Public Policy
ECMB68H3 Comparative Economic Systems
ECMC66H3 Economic Development
ECMC67H3 Development Policy
IDSC12H3 Economics of Small Enterprise and Micro-Credit
IDSC14 The Political Economy of Food

Environment and Land Use
ANTB01H3 Political Ecology
EESB16H3 Feeding Humans - the Cost to the Planet
EESB17H3 Hydro Politics and Transboundary Water Resources Management
FOR201H Conservation of Tropical and Subtropical Forests
GGRB20H3 Environmental Conservation and Sustainable Development
GGRC10H3 Urbanization and Development
(GGRC20H3) Issues in Rural Development
GGRC22H3 Political Ecology Theory and Application
GGRC25H3 Land Reform and Development

Gender and Health
ANTC14H3 Feminism and Anthropology
ANTC15H3 Genders and Sexualities
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
GGRB28H3 Geographies of Disease
GGRD10H3 Health and Sexuality
HLTA01H3 Plagues and Peoples
HLTC02H3 Women and Health: Past and Present
HMB303H Global Health and Human Right
IDSC11H3 Issues in International Health
POLC94H3 Globalization, Gender and Development
WSTC10H3 Women and Development
WSTC11H3 Applied Study in Women and Development
Politics and Policy
IDSC17 Development, Citizen Action and Social Change in the Global South
POLB80H3 Introduction to International Relations
POLB81H3 Global Issues and Governance
POLC87H3 International Cooperation and Institutions
POLC88H3 The New International Agenda
POLC90H3 Development Studies: Political and Historical Perspectives
POLC91H3 Latin America: Dictatorship and Democracy
POLC96H3 State Formation and Authoritariansim in the Middle East
POLC97H3 Protest Politics in the Middle East
POLC99H3 Latin America: Politics of the Dispossessed
POLD88H3 Exploring the New International Agenda
POLD90H3 Public Policy and Human Development in the Global South
POLD94H3 Selected Topics on Developing Areas

Specialist in International Development Studies (B.Sc.)

Overview of Changes:
In 2010-11 this program was placed under review and all new enrolment suspended. At the time it was last listed in the Calendar (2009-10), the program requirements consisted of requirements 1 through 4 of the Specialist in International Development Studies (B.A.) program, plus additional requirements pulled from the Major Program in Environmental Science as it was structured in the 2008-09 Calendar.

The 2009-10 requirements for this program are given below:

Program Requirements: This program requires 12 full credits.
1. Requirements 1 through 4 of the Specialist Program in International Development Studies (B.A.) above, 7.0 credits in total, plus the following:
2. Fundamentals (2.0 full credits from among the following)
   BGYA01H Introductory Biology: Part I
   BGYA02H Introductory Biology: Part II
   BGYB31H Plant Physiology
   BGYB33H Human Development and Anatomy
   BGYB50H Ecology
   BGYB51H Evolutionary Biology
   BGYB52H Ecology and Evolutionary Biology Laboratory
   CHMA10H Introductory Chemistry I: Structure and Bonding
   CHMA11H Introductory Chemistry II: Reactions and Mechanisms
   CHMB55H Environmental Chemistry
   EESB02H Principles of Geomorphology
   EESB03H Principles of Climatology
[(MATA27H) Introduction to Optimization or MATA30H Calculus I or MATA32H Calculus for Management I]
[MATA33H Calculus for Management II or MATA35H Calculus II for Biological Sciences or MATA36H Calculus II for Physical Sciences]

3. Advanced Options (3 full credits from among the following)
   ANTTC62H Medical Anthropology: Biological and Demographic Perspectives
   BGYC52H Ecology Field Course
   BGYC53H Marine Biology
   BGYC58H Biological Consequences of Global Change
   BGYC59H Advanced Population Ecology
   BGYC60H Restoration Ecology
   BGYC61H Community Ecology and Environmental Biology
   BGYC63H Conservation Biology
   BGYC65H Environmental Toxicology
   BGYC67H Advanced Field Course in Ecology
   BGYD52H Senior Seminar in Biodiversity and Conservation Biology
   BGYD60H Landscape Ecology
   EESC03H Geographic Information Systems and Remote Sensing
   EESC04H Biodiversity and Biogeography
   EESC07H Groundwater
   EESC13H Environmental Impact Assessment and Auditing
   EESC15H Research Seminar in Environmental Science
   EESC16H Field Camp I
   EESD06H Climatic Change Impact Assessment
   EESD11H Process Hydrology
   EESD15H Cleaning up our Mess: Remediation of Terrestrial and Aquatic Environments
   GGR310H Cultural Biogeography
   IDSC06H Directed Research on Canadian Institutions and International Development

Requirements 1 through 4 of the Specialist in IDS (B.A.) are as follows:

1. Fundamentals of Development Studies (3 full credits as follows)
   [ECMA01H Introduction to Microeconomics or ECMA04H Introduction to Microeconomics: A Mathematical Approach]
   [ECMA05H Introduction to Macroeconomics or ECMA06H Introduction to Macroeconomics: A Mathematical Approach]
   EESA01H Introduction to Environmental Science
   IDSB01H International Development Studies: Political Economy
   IDSB02H International Development Studies: Development and Environment
   IDSC04H Project Management I

2. Health and Environmental Science (2 full credits from among the following)
   ANTB56H Health and the Urban Environment
   EESA10H Human Health and the Environment
   EESB04H Principles of Hydrology
   EESB05H Principles of Soil Science
   HLTA01H Plagues and Peoples
   HLTB01H Health, Aging and the Life Cycle
   HLTB02H Issues in Child Health and Development
The program has been reviewed, and we are proposing to reinstate it. Changes to the program requirements are necessary, but curriculum changes for both the Specialist in IDS (B.A.) and the Major in Environmental Science program have been approved and implemented since 2009-10. The specific program changes to the Specialist in IDS (B.Sc.) must therefore be made to the CURRENTLY EXISTING requirements of the Specialist in IDS (B.A.) and the Major in Environmental Science. These changes are shown below:

*Proposed Program Requirements:*

This program requires 14.0 full credits of which at least 6.0 must be at the C- or D-level including at least 1.0 at the D-level.

1. **Introduction to International Development Studies** (2.0 credits full credits as follows)
   - **IDSA01H3** Introduction to International Development Studies
   - [**ECMA01H3** Introduction to Microeconomics or **ECMA04H3** Introduction to Microeconomics: A Mathematical Approach]
   - [**ECMA05H3** Introduction to Macroeconomics or **ECMA06H3** Introduction to Macroeconomics: A Mathematical Approach]
   - **EESA01H3** Introduction to Environmental Science
2. **Core courses in International Development** (3.5 credits full credits as follows)
   
   - **IDSB01H3** Political Economy of International Development
   - **IDSB02H3** Development and Environment
   - **IDSB04H3** International Health Policy Analysis
   - **IDSB06H3** Equity, Ethics and Justice in International Development
   - **POLB90H3** Comparative Development in International Perspective
   - **POLB91H3** Comparative Development In Political Perspective
   - **IDSD02H3** Supervised Research in International Development

3. **Methods for International Development Studies** (1.5 credits full credits as follows)
   
   - **IDSC04H3** Project Management I
   - **STAB22H3** Statistics I
   
   and
   
   0.5 FCE in Statistics/Quantitative Methods (one of **ANTC35H3**, **ECMB11H3**, **GGRA30H3**, **SOCB06H3**, **PSYB07H3** & **STAB22H3**)

   0.5 FCE in Qualitative Methods (one of **ANTB19H3**, **GGRB02H3**, **SOCB05H3**, **HLTA10H3**, **POLC78H3**).

4. **Specialized Courses: Approaches to International Development Core** (6.0 full 3.0 credits)
   
   A minimum of 2.0 full credits must be chosen from two different clusters below for a total of 4.0 full credits. The other 2.0 full credits may be selected from any of the courses listed below, and **IDSC07H3**, **IDSC10H3**, **IDSD14H3** and **IDSD15H3** may also be counted towards the completion of this requirement.

   - **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
   - **MATA20H3** Calculus A or **MATA30H3** Calculus I for Biological and Physical Sciences
   - **MATA21H3** Calculus B or **MATA35H3** or **MATA36H3** Calculus II for Biological/Physical Sciences
   - **PHYA10H3** or **PHYA11H3** Introduction to Physics IA or IB
   - **EESA06H3** Planet Earth
   - **STAB22H3** Statistics I

5. 1.5 credits from:
   
   - **EESB03H3** Principles of Climatology
   - **EESB04H3** Principles of Hydrology
   - **EESB05H3** Principles of Soil Science
   - **EESB15H3** Earth History
   - **EESB16H3** Feeding Humans - The Cost to the Planet

6. 0.5 credits from:
   
   - **BIOB50H3** Ecology
   - **EESB02H3** Principles of Geomorphology
   - **EESB17H3** Hydro Politics and Transboundary Water Resource Management
   - **PSCB57H3** Introduction to Scientific Computing
   - **CHMB55H3** Environmental Chemistry
7. 2.0 credits from C- and D-level EES courses, with at least 0.5 credit at the D-level, from the following:
   EESC04H Biodiversity and Biogeography
   EESC07H Groundwater
   EESC13H Environmental Impact Assessment and Auditing
   EESC20H Marine Systems
   EESC21H Urban Environmental Problems of the Greater Toronto Area
   EESD02H Contaminant Hydrogeology
   EESD06H Climate Change Impact Assessment
   EESD11H Process Hydrology
   EESD15H Cleaning Up Our Mess: Remediation of Terrestrial and Aquatic Environments

Specialist in Political Science

Overview of Changes:
- Add POLB11H to list of required courses, in requirement 5.

Proposed Program Requirements:

Program Requirements
Students must complete at least 12.0 full credits in Political Science including:
1. 1.0 full credit from among the A-level political science courses (no more than 1.0 full credit at the A-level may be counted towards the program requirements).
2. POLB70H3 Classic Texts in Political Theory I
   and
   POLB71H3 Classic Texts in Political Theory II
3. POLB50H3 Canada's Political Institutions
   and
   POLB52H3 Canadian Politics: Connecting Citizens and Governments
4. At least four of the following (2.0 full credits):
   POLB80H3 Introduction to International Relations
   POLB81H3 Global Issues and Governance
   POLB90H3 Comparative Development in International Perspective
   POLB91H3 Comparative Development in Political Perspective
   POLB92H3 Comparative Politics: Revolution, Democracy and Authoritarianism in Modern Europe
   POLB93H3 Comparative Politics: Ethnic Conflict and Democratization in Europe After the Cold War
5. POLC78H3 Political Analysis I or POLB11H3 Statistics for Political Science and Public Policy.
6. 6.5 full credits in political science at the C- and/or D-level, of which at least 1.0 must be at the D-level
Minor in Political Science

Overview of Changes:

- From field (b) Political Theory - delete the following courses: POLC76H, POLC77H, POLD71H, POLD72H, POLD78H
- Addition of a new field: (e) Public Policy: POLC53H, POLC65H, POLC66H, POLC67H, POLC93H, POLD64H

Proposed Program Requirements:
The Program requires the completion of at least four full credits above the A-level in Political Science. At least two of these must be at the C- or D-level. There are two options: either the four full credits must be taken from any one of the fields listed below (e.g. Canadian Government); or two credits must be taken from each of any two of these fields (e.g. two credits in International Relations, two credits in Comparative Politics).

b. Political Theory: POLB70H3, POLB71H3, POLC73H3, POLC74H3, POLC76H3, POLC77H3, POLC78H3, POLD71H3, POLD72H3, POLD78H3

e. Public Policy: POLC53H3, POLC65H3, POLC66H3, POLC67H3, POLC93H3, POLD64H3

Major in Public Policy

Overview of Changes:

- Significant restructuring – see below:

Existing Program Requirements:

Students must complete 7.0 full credits from the following list:

1. SOCA01H3 Introduction to Sociology I
   SOCA02H3 Introduction to Sociology II
2. 1.5 credits in Research Methods. At least 0.5 credit must be Quantitative Methods and at least 0.5 must be at the C- or D-level:
   ANTC35H3 Quantitative Methods in Anthropology
   ECMB11H3 Quantitative Methods in Economics I
   ECMB12H3 Quantitative Methods in Economics II
   (ECMB09Y3) Quantitative Methods in Economics
ECMC11H3 Introduction to Regression Analysis
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
(GGRC47H3) Introduction to Research in Human Geography
POLB11H3 Statistics for Politics and Public Policy
PSYB07H3 Data Analysis in Psychology
SOCB05H3 Logic of Social Inquiry
SOCB06H3 Social Statistics
SOCD23H3 Practicum in Qualitative Research Methods
SOCD31H3 Practicum in Quantitative Research Methods
STAB22H3 Statistics I

3. 0.5 credit in Social Theory
   POLC78H3 Political Analysis I

4. POLB50H3 Canada's Political Institutions
   POLB52H3 Canadian Politics: Connecting Citizens and Governments

5. 0.5 credit from among the following:
   CITB01H3 Canadian Cities and Planning
   ECMB35H3 Public Decision Making
   ECMB36H3 Economic Aspects of Public Policy

6. POLC66H3 Public Policy-Making
   POLC67H3 Public Policy in Canada

7. 1.0 credit at the C- or D-level from among the following list:
   ANTC32H3 Political Anthropology
   ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
   ANTC62H3 Medical Anthropology II: Biological and Demographic Perspectives
   ECMC31H3 Economics of the Public Sector: Taxation
   ECMC32H3 Economics of the Public Sector: Expenditures
   ECMC38H3 The Economics of Canadian Public Policy
   ECMC51H3 Labour Economics I
   ECMC52H3 Labour Economics II
   GGRC04H3 Urban Residential Geography
   GGRC13H3 Urban Political Geography
   (GGRC18H3) Urban Transportation Policy Analysis
   (GGRC20H3) Issues in Rural Development
   GGRC33H3 The Toronto Region
   (GGRD07H3) Countryside Conservation
   HISD46H3 Selected Topics in Canadian Women's History
   HLTC03H3 Politics of Canadian Health Studies
   MGTC42H3 Public Management
   POLC53H3 Canadian Environmental Politics
   POLC54H3 Intergovernmental Relations in Canada
   POLC57H3 Intergovernmental Relations and Public Policy
   POLC88H3 The New International Agenda
   POLD50H3 Political Interests, Political Identity, and Public Policy
   POLD71H3 Canadian Political Ideas I
   POLD72H3 Canadian Political Ideas II
   POLD78H3 Political Analysis II
POLD88H3 Exploring the New International Agenda
SOCC09H3 Sociology of Gender and Work
SOCC25H3 Ethnicity, Race and Migration
SOCC26H3 Sociology of Urban Growth
SOCC37H3 Environment and Society
VPAC15H3 Cultural Policy

8. A D-level course in Public Policy. Any of POLD50H3, POLD51H3, POLD64H3 or POLD98H3

Students are encouraged to take ENGA10H3 (Introduction to Twentieth-Century Literature and Film: 1890 to World War II), ENGA11H3 (Introduction to Twentieth-Century Literature and Film: 1945 to Today) and ENGB05H3 (Critical Writing about Literature). *Many of these course have prerequisites, please plan accordingly. In addition, we recommend taking methods courses from within your disciplinary major program.

Proposed Program Requirements and Calendar copy:

Students must complete 8.0 full credits as follows:

1. 1.0 FCE’s at the A- or B- level in Anthropology, City Studies, Geography, Health Studies, IDS or Sociology. At least 0.5 credits in A-level Political Science are recommended.

   We also recommend interested students to take introductory courses in departments like City Studies, Economics, Environmental Science, Health Studies, and IDS that may reflect their particular substantive interests.

2. Canadian Politics (1.5 credits)
   a. POLB50H3 Canada’s Political Institutions
      and
      POLB52H Canadian Politics: Connecting Citizens and Governments
   b. One C- or D- level course in Canadian Politics

3. Fundamentals of Public Policy (1.0 credits)
   a. POLC66H
   b. POLC67H

4. Economics for Public Policy (1.5 credits)
   a. Introduction to Micro-and Macroeconomics [[ECMA01H3 & ECMA05H3] or [ECMA04H3 & ECMA06H3]]
   b. [ECMB35H3 Public Decision Making or ECMB36H3 Economic Aspects of Public Policy (Cost Benefit Analysis)]

5. Research Methods (1.0 credits with at least 0.5 credits in quantitative methods)

   Quantitative Methods courses include:
   • ANTC35H3 Quantitative Methods in Anthropology
   • ECMB11H3 Quantitative Methods in Economics I
   • GGRA30H3 Geographic Information Systems
   • POLB11 Statistics for Public Policy
• PSYB07 Data Analysis in Psychology
• SOCB06 Social Statistics, or
• STAB22H3 Statistics I.

4. Applications of Public Policy (2.0 credits) from the list of relevant Public Policy or other courses with the approval of the supervisor of studies. Of these, 1.0 credits must be from C or D level courses in Political Science.

Specialist in Sociology

Overview of Changes:
• Add **SOCD50H** Capstone Course: Realizing the Sociological Imagination (new) to the program requirements as requirement #10.
• Reduce requirement #11 (formerly requirement #10) – credits at the C- or D-level – from 4.5 to 4.0. Reduce the D-level requirements, from 1.0 to 0.5.

Proposed 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. **SOCB06H3** Social Statistics
4. **SOCB42H3** Classical Sociological Theory I
5. **SOCB43H3** Classical Sociological Theory II
6. 2.0 full credits at B-level in Sociology
7. **SOCC40H3** Contemporary Sociological Theory Part I
8. **SOCC41H3** Contemporary Sociological Theory Part II
9. **SOCD23H3** Practicum in Qualitative Research Methods
   or
   **SOCD31H3** Practicum in Quantitative Research Methods
10. **SOCD50H3** Capstone Course: Realizing the Sociological Imagination
11. 4.5 4.0 full credits in Sociology at C- or D- level of which at least 4.0 0.5 must be at the D-level.
   **Note:** Students may substitute courses from cognate disciplines with the prior approval of the program supervisor.
12. 1.0 other full credit in Sociology.
4. COURSE CHANGES

DEPARTMENT OF BIOLOGICAL SCIENCES

COURSE DELETIONS

BIOB30H  Mammalian Physiology I
Rationale:
The deletion of BIOB30 is part of an overall revision of the animal physiology content in the biology curriculum. The content now in BIOB30 will be covered in a proposed new course at the third-year level, BIOC32 (Human Physiology I). BIOB30 will be replaced in second year by proposed new course BIOB34 (Animal Physiology) that will serve as a core requirement in biology programs.

NEW COURSES

BIOB34H  Animal Physiology
A comparative animal physiology course covering regulatory and control mechanisms such as: homeostasis; metabolism and energetics; excretion and osmoregulation; feeding and digestion; muscles and locomotion; nervous systems.
Prerequisite: BIOA01H3 & BIOA02H3
Exclusion: (BIOB30H) (BGYB30H3), BIO27OH1, BIO204H5
Breadth Requirement: Natural Sciences

BIOC10H  Cell Biology: Intracellular Compartments and Protein Sorting
This course builds on fundamental cell biological concepts using primary literature. This course will examine specific organelles and their functions in protein biogenesis, modification, trafficking and quality control within eukaryotic cells. The experimental basis of knowledge will be emphasized and students will be introduced to hypothesis-driven research in cell biology.
Prerequisites: [BIOB10 & BIOB11] or BIOB10Y
Co-requisites: None
Exclusions: CSB331H1, CSB428H1, BIO315H5
Recommended Preparation: BIOC12H
Enrolment Limit: 50 students
Breadth Requirement: Natural Sciences

BIOC32H  Human Physiology I
An introduction to Human Physiology covering the function of neurons, the brain, hormones, our immune systems in both the healthy and diseased states.
Prerequisite: BIOB34H or NROB60H
Exclusion: (BIOB30H), PSL300H
Breadth Requirement: Natural Sciences
BIOC39H  Immunology
This course introduces the molecular and cellular basis of the immune system. Topics include self versus non-self recognition, humoral and cell-mediated immune responses, structure and function of antibodies. The importance of the immune system in health and disease will be emphasised and topics include vaccination, autoimmunity, and tumour immunology.
Prerequisite: [[BIOB10H3 & BIOB11H3] or BIOB10Y3]
Exclusions:  IMM334Y1, IMM335Y1
Breadth Requirement: Natural Sciences

BIOD48H  Ornithology and Herpetology
An overview of the evolution, ecology, behaviour, and conservation of amphibians, reptiles, and birds. Field projects and laboratories will emphasise identification of species in Ontario.
Prerequisite:  BIOB50H3, BIOB51H3 & one of the following: BIOC50H3; BIOC54H3 or BIOC61H3
Exclusion:  EEB386H1S, EEB384H1S
Breadth Requirement: Natural Sciences

COURSE CHANGES

BIOA01H  Life on Earth: Unifying Principles
•  Exclusions:
From:  BIO150Y,  (BGYA01H3)
To:  BIO120H, BIO130H, (BIO150Y), (BGYA01H3)

BIOA02H  Life on Earth: Form, Function and Interactions
•  Exclusions:
From:  BIO150Y,  (BGYA02H3)
To:  BIO120H, BIO130H, (BIO150Y), (BGYA02H3)

BIOB11H  Molecular Aspects of Cellular and Genetic Processes
•  Exclusions:
From:  BIOB10Y3, (BGYB10Y3), (BGYB11H3), BIO240H, (BIO250Y)
To:  BIOB10Y3, (BGYB10Y3), (BGYB11H3), BIO230H, (BIO250Y)

BIOB32H  Animal Physiology Laboratory
•  Co-requisites:
From:  BIOB30H3
To:  (BIOB30H) or BIOB34H
BIOC17H  Microbiology: The Bacterial Cell
  • Pre-requisites:  
    From: [[[BIOB10H3 & BIOB11H3] or BIOB10Y3] or [BIOB50H3 & BIOB51H3]] & [one of BIOB12H3 or BIOB32H3 or BIOB33H3 or BIOB52H3]
    To: [[BIOB10H & BIOB11H] or BIOB10Y] & [one of BIOB12H or BIOB32H or BIOB33H or BIOB52H]

BIOC21H  Vertebrate Histology: Cells and Tissues
  • Pre-requisites:  
    From: [BIOB10H3 or BIOB10Y3] & BIOB30H3
    To: [BIOB10H3 or BIOB10Y3] & [(BIOB30H3) or BIOB34H3]

BIOC33H  Mammalian Physiology II: Lecture and Laboratory
  • Course title:  
    To: Human Physiology II: Lecture and Laboratory  
    • Pre-requisites:  
      From: BIOB30H3
      To: (BIOB30H3) or BIOB34H3 or NROB60H3

BIOC34H  Mammalian Physiology II: Lecture  
  • Course title:  
    To: Human Physiology II: Lecture  
    • Pre-requisites:  
      From: BIOB30H3
      To: (BIOB30H3) or BIOB34H3 or NROB60H3

BIOC99H  Biology Team Research  
  • Pre-requisites:  
    From: (1) Enrolment in a UTSC major or specialist Subject POSSt offered by Biological Sciences & (2) [BIOB10H3 & BIOB11H3] or BIOB10Y3] & BIOB30H3, & BIOB31H3 & BIOB50H3 & BIOB51H3 [one of BIOB12H3, BIOB32H3, BIOB33H3 or BIOB52H3] & (3) No more than 12.5 credits overall & (4) a cumulative GPA of at least 3.0 (5) acceptance of the application by a faculty member (The form may be downloaded from the website, www.utsc.utoronto.ca/~ctl/Science_Engagement/index.html and should be emailed to scieng@utsc.utoronto.ca.
    To: (1) Enrolment in a UTSC major or specialist Subject POSSt offered by Biological Sciences & (2) have completed all second year core program requirements & (3) have at least 10 full credits & (4) a cumulative GPA of at least 3.0 (5) acceptance of the application by a faculty member (The application form may be downloaded from the website, www.utsc.utoronto.ca/~ctl/Science_Engagement/index.html and should be emailed to scieng@utsc.utoronto.ca.
BIOD17H   Seminars in Cellular Microbiology
• Course description:
   From:
   An overview of the most significant advances in cellular microbiology. The curricula will include
   the study of mechanisms of bacterial pathogenesis, including virulence factors, bacteria
   attachment and invasion of mammalian cells. The cellular mechanisms involved in the
   recognition and elimination of pathogenic bacteria will be also studied.
   To:
   An overview of the most significant advances in cellular microbiology. Relevant scientific
   literature will be presented and discussed by the students in class and assignments. The
   curriculum will include cellular mechanisms of bacterial pathogenesis, invasion and
   intracellular survival of bacteria and recognition and elimination of pathogenic bacteria by
   cells.
• Pre-requisites:
   From: BIOC17H3
   To: BIOC17H3

BIOD21H   Molecular Biology Laboratory I: Host, Vectors and Cloning
• Course title:
   To: Advanced Molecular Biology Laboratory

BIOD22H   Molecular Biology Laboratory II: Nucleic Acids & Proteins
• Course title:
   To: Molecular Biology of the Stress Response
• Course description:
   From:
   A laboratory course offering experience in a range of molecular techniques. The course will be
   organized around a central theme, namely the expression of heat shock (stress) genes that encode
   proteins important in cellular repair and protective mechanisms.
   To:
   This course is organized around a central theme, namely the expression of heat shock
   (stress) genes encoding proteins important in cellular repair/protective mechanisms. Topics
   include heat shock transcription factors, heat shock proteins as 'protein repair agents' that
   correct protein misfolding, and diseases triggered by protein misfolding such as
   neurodegenerative disorders.
• Pre-requisites:
   From: None
   To: BIOC15H3
• Co-requisites:
   From: BIOD21H3
   To: None
BIOD25H  Genomics
• Enrolment Limit:
  From: 60
  To: 25

BIOD27H  Molecular Endocrinology
• Pre-requisites:
  From: BIOB30H3 & BIOC12H3
  To: (BIOB30H3) or BIOB34H3 or BIOC32H & BIOC12H3

BIOD43H  Exercise Physiology
• Course title:
  To: Animal Movement and Exercise
• Enrolment Limit:
  From: 35
  To: 50

BIOD45H  Animal Communication
• Pre-requisites:
  From: BIOB30H3 & BIOB50H3 & BIOB51H3 & BIOC54H3
  To: [(BIOB30H3) or BIOB34H3] & BIOB50H3 & BIOB51H3 & BIOC54H3

IMCB08H  Biochemistry and Applications I
• Exclusions:
  From: IMCB08H3 may not be taken after or concurrently with BIOC12H3 or BCH310H
  To: None

NROC34H  Neuroethology
• Pre-requisites:
  From: BIOB30H3
  To: (BIOB30H3) or BIOB34H3 or NROB60H
COURSE DELETIONS

CTLA19H  Writing Practicum: A Course for Non-Native Speakers of English
Rationale:
This course will be replaced by CTLA01H3. This new course will make a significant impact on student’s second language acquisition so that they are able to function effectively to meet the academic demands in their courses, the course needs to be multi-modal and focus on the development of academic reading and listening as well as oral skills.

SCIB03H  Introduction to Service Learning in the Sciences
Rationale:
This course, open only to science students, is to be replaced by a similar course (CTLB03), which is open to UTSC students from any discipline.

NEW COURSES

CTLA01H  Foundations in Effective Academic Communication
This highly interactive course for English Language Learners is designed to fast-track the development of critical thinking, reading, writing and oral communication skills. Through the emphasis on academic writing and rapid expansion of vocabulary, students will gain practical experience with university-level academic texts and assignment expectations.

Exclusions: HUMA19H; LGGA19H; LGGA99H; CTLA19H
Breadth Requirement:  Arts, Literature and Language
Enrolment Limit:  20 students per practicum.

CTLA02H  Exploring Cross-Cultural Perspectives in Academic Contexts
This course develops students’ academic and communication skills through a critical exploration of Canadian culture and academic expectations. Using audio-visual and textual media, students learn through interactive online and in-class collaborative discussions. This course aims to foster dynamic academic acculturation for international students and develop their multi-literate engagement in English.

Exclusions: HUMA11H
Breadth Requirement:  Arts, Literature & Language
Enrolment Limit:  40 students – 20 students per tutorial.
CTLB03H  Introduction to Service Learning
In this experiential learning course, students apply discipline-specific academic concepts as they work with community partners in the service of others. Working either within the academic community or with a discipline-related off-campus community partner, students develop problem-solving, professional communication and self-reflective learning skills.

Prerequisites: Completion of 4.0 full credits and selection of a U of T Scarborough major or specialist subject POS and acceptance of the Service Learning & Outreach application form which can be downloaded from the website: www.utsc.utoronto.ca/ctl/Science_Engagement (email to scieng@utsc.utoronto.ca). GPA and communication skills will also be considered.

Exclusions: (SCIB01H3), (SCIB02H3), (SCIB03H3)

Enrolment Limit: 40 students – 20 per tutorial.

Breadth Requirement: Social & Behavioural Science

DEPARTMENT OF COMPUTER AND MATHEMATICAL SCIENCES

COURSE DELETIONS

CSCA65H  Mathematical Expression and Reasoning for Computer Science
Rationale: Being replaced by the new course CSCA67H [Discrete Mathematics for Computer Scientists].

CSCC36H  Numerical Methods
Rationale: Being deleted as part of the reorganization of the numerical analysis course sequence. Most topics covered in CSCC36H will be covered in the new course CSCC37H [Introduction to Numerical Algorithms for Computational Mathematics].

CSCC40H  Analysis and Design of Information Systems
Rationale: Being replaced by CSCC01H [Introduction to Software Engineering].

CSCC50H  Numerical Algebra and Optimization
Rationale: Being deleted as part of the reorganization of the numerical analysis course sequence. Some topics in CSCC50H will be covered in the new course CSD37H [Analysis of Numerical Algorithms for Computational Mathematics].

CSCC51H  Numerical Approximation, Integration and Ordinary Differential Equations
Rationale: Being deleted as part of the reorganization of the numerical analysis course sequence. Some topics in CSCC51H will be covered in the new course CSD37H [Analysis of Numerical Algorithms for Computational Mathematics].

CSCD08H  Software Engineering
Rationale: Being replaced by CSCD01H [Engineering Large Software Systems]
NEW COURSES

CSCA67H  Discrete Mathematics for Computer Scientists
Introduction to discrete mathematics: Elementary combinatorics; discrete probability including conditional probability and independence; graph theory including trees, planar graphs, searches and traversals, colouring. The course emphasizes topics of relevance to computer science, and exercises problem-solving skills and proof techniques such as well ordering, induction, contradiction and counterexample.
Prerequisites: Grade 12 Calculus and Vectors & one other Grade 12 mathematics course
Co-requisites: None
Exclusions: (CSCA65H), CSC165H, CSC240H, MAT102H
Recommended Preparation: CSCA08H or CSCA20H
Enrolment Limit: None
Breadth Requirement: Quantitative Reasoning

CSCB20H  Introduction to Databases and Web Applications
A practical introduction to databases and Web app development. Databases: terminology and applications; creating, querying and updating databases; the entity-relationship model for database design. Web documents and applications: static and interactive documents; Web servers and dynamic server-generated content; Web application development and interface with databases.
Prerequisites: Some experience with programming in an imperative language such as Python, Java or C.
Co-requisites: None
Exclusions: This course may not be taken after—or concurrently with—any C- or D-level CSC course.
Recommended Preparation: CSCA08H or CSCA20H
Enrolment Limit: None
Breadth Requirement: Quantitative Reasoning

CSCC01H  Introduction to Software Engineering
Introduction to software development methodologies with an emphasis on agile development methods appropriate for rapidly-moving projects. Basic software development infrastructure; requirements elicitation and tracking; prototyping; basic project management; basic UML; introduction to software architecture; design patterns; testing.
Prerequisites: CSCB07H, CSCB09H & [CGPA 3.0 or enrolment in a CSC Subject POSI]
Co-requisites: None
Exclusions: CSC301H, CSCC40H, CSCD08H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Quantitative Reasoning
CSCC37H  Introduction to Numerical Algorithms for Computational Mathematics
An introduction to computational methods for solving problems in linear algebra, non-linear equations, approximation and integration. Floating-point arithmetic; numerical algorithms; application of numerical software packages.
Prerequisites: [MATA36H or MATA37H] & MATA23H & [CGPA 3.0 or enrolment in a CSC subject POSI]
Co-requisites: None
Exclusions: (CSCC36H), (CSCC50H), (CSCC51H), CSC336H, CSC350H, CSC351H, CSC338H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Quantitative Reasoning

CSCD01H  Engineering Large Software Systems
An introduction to the theory and practice of large-scale software system design, development, and deployment. Project management; advanced UML; requirements engineering; verification and validation; software architecture; performance modeling and analysis; formal methods in software engineering.
Prerequisites: CSCC01H3 & [CGPA 3.0 or enrolment in a CSC Subject POSI]
Co-requisites: None
Exclusions: CSC302H, CSCD08H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Quantitative Reasoning

CSCD37H  Analysis of Numerical Algorithms for Computational Mathematics
Most mathematical models of real systems cannot be solved analytically and the solution of these models must be approximated by numerical algorithms. The efficiency, accuracy and reliability of numerical algorithms for several classes of models will be considered. In particular models involving least squares, nonlinear equations, optimization, quadrature and systems of ordinary differential equations will be studied.
Prerequisites: CSCC37H & MATB24H & MATB41H & [CGPA 3.0 or enrolment in a CSC Subject POSI]
Co-requisites: None
Exclusions: (CSCC50H), (CSCC51H), CSC350H, CSC351H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Quantitative Reasoning
CSCD84H  Artificial Intelligence
A study of the theories and algorithms of Artificial Intelligence. Topics include a subset of:
search, game playing, logical representations and reasoning, planning, natural language
processing, reasoning and decision making with uncertainty, computational perception, robotics,
and applications of Artificial Intelligence. Assignments provide practical experience of the core
topics.
Prerequisites: CSCC24H & STAB52H & [CGPA 3.0 or enrolment in a CSC subject
POSt]
Co-requisites: None
Exclusions: CSC484H, CSC384H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Quantitative Reasoning

COURSE CHANGES

CSCB09H  Software Tools and Systems Programming
• Revised Pre-requisites:
From:  CSCB07H3 & [CGPA 2.5 or enrolment in a CSC Subject POSt]
To:  CSCA48H3 & [CGPA 2.5 or enrolment in a CSC Subject POSt]

CSCB58H  Computer Organization
• Revised Course Content:
The course content will be brought up-to-date, topics will be discussed in the context of other
computer science courses to achieve a tighter integration of CSC B58 with the rest of the CS
curriculum. More emphasis will be put on the programmer's view of computer architecture and
on preparing students for programming in languages such as C and C++. The content of in-lab
practical sessions will also be updated to take advantage of the new embedded systems lab in the
IC building.
• Revised Course Description:
From:
Computer structures, machine languages, instruction execution, addressing techniques, and
digital representation of data. Computer system organization, memory storage devices, and
microprogramming. Block diagram circuit realizations of memory, control and arithmetic
functions. There are a number of laboratory periods in which students conduct experiments with
digital logic circuits.
To:
Principles of the design and operation of digital computers. Binary data representation and
manipulation, Boolean logic, components of computer systems, memory technology,
peripherals, structure of a CPU, assembly languages, instruction execution, and addressing
techniques. There are a number of laboratory periods in which students conduct experiments with
digital logic circuits.
CSCB63H  Design and Analysis of Data Structures
  • Revised Pre-requisites
From:  CSCB07H3 & CSCB36H3 & STAB52H3 & [CGPA 2.5 or enrolment in a CSC subject POSt]
To:  CSCB07H3 & CSCB36H3 & [CGPA 2.5 or enrolment in a CSC subject POSt]

CSCC24H  Principles of Programming Languages
  • Revised Course Content
Shift the focus of the course from issues related to compilers (e.g., Formal specification) to issues related to design and implementation of modern programming languages (e.g., Type systems, Laziness). /Bring the course up to date by studying a modern, state-of-the-art language Haskell. /Include broader coverage and more discussion of topics that provide a deeper understanding of the languages studied in first and second year (Python, Java, C), such as static versus dynamic typing, polymorphism, exception handling, etc.
  • Revised Course Description
From:
Major topics in the development of modern programming languages. Syntax specification, type systems, type interface, exception handling, information hiding, structural recursion, run-time storage management, and programming paradigms. Two non-procedural programming paradigms: functional programming (e.g., Lisp, Scheme, ML or Haskell) and logic programming (e.g., Prolog, XSB or Coral).
To:
Major topics in the design, definition, analysis, and implementation of modern programming languages. Study of programming paradigms: procedural (e.g., C, Java, Python), functional (e.g., Scheme, ML, Haskell) and logic programming (e.g., Prolog, Mercury).
  • Revised Pre-requisites
From:  CSCB07H3 & CSCB36H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt]
To:  CSCB07H3 & CSCB09H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt]

CSCC43H  Introduction to Databases
  • Revised Pre-requisites
From:  CSCB63H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt]
To:  CSCB63H3 & CSCB09H3 [CGPA 3.0 or enrolment in a CSC Subject POSt]

CSCC73H  Algorithm Design and Analysis
  • Revised Pre-requisites
From:  CSCB63H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt]
To:  CSCB63H3 & STAB52H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt]
CSCC85H  Microprocessor Systems
• Revised Title:
To:  Introduction to Embedded Systems
• Revised Course Content
The course is being updated to better reflect the current state of systems based on microprocessors. The course will become much less focused on teaching assembly language for a particular microprocessor or architecture, and instead, provide detailed coverage of the principles involved in the operation and design of embedded systems. The course will include:
  o Principles and components of embedded systems
  o Architecture and operation of microprocessors, micro-controllers, DSPs, and SoCs
  o Programming aspects of embedded systems (memory and speed limitations, interaction with specially designed hardware)
  o Sensors and actuators
  o Signal acquisition and processing
  o Basic principles in control theory
  o Embedded systems design
  o Case studies throughout to illustrate the material
• Revised Course Description:
From:
A study of hardware and software aspects of microcomputers and microprocessors. This course will examine instruction sets, addressing modes, memory devices, bus structures, input/output and interrupt mechanisms. Assembly language and high-level language programming. System and applications software. Laboratory experiments will provide hands-on experience.
To:
The course covers the components and fundamental principles of operation of systems built around micro-processing elements: The architecture, operation, and types of micro-processing components; sensors, actuators, signal acquisition and processing, and basic principles of control theory. Laboratory sessions involving the use of a mobile robotic platform provide hands-on experience.
• Enrolment Limit:
From:  100
To:  None

CSCD03H  Social Impact of Information Technology
• Revised Enrolment Limit:
From:  25
To:  None
CSCD11H  Machine Learning and Data Mining
  •  Revised Course Content:
  The new description to course content simply represents the most recent evolution in the material covered in the course. We have included Support Vector Machines, dimensionality reductions methods, Bayesian methods for regression and classification, and ensemble methods for classification.
  •  Revised Course Description:
  From:
  To:
  •  Revised Pre-requisites:
  From: MATB24H3 & MATB41H3 & STAB52H3 & CSCB63H3 & [CSCC36H3 or CSCC50H3] & [CGPA 3.0 or enrolment in a CSC Subject POSt]
  To: MATB24H3 & MATB41H3 & STAB52H3 & CSCC37H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt]

CSCD18H  Computer Graphics
  •  Revised Pre-requisites
  From: MATB24H3 & MATB42H3 & [CSCB09H3 or proficiency in C] & CSCB63H3 & [CSCC36H3 or CSCC50H3] & [CGPA 3.0 or enrolment in a CSC Subject POSt]
  To: MATB24H3 & MATB42H3 & [CSCB09H3 or proficiency in C] & CSCC37H3 & [CGPA 3.0 or enrolment in a CSC Subject POSt]

DEPARTMENT OF ENGLISH

COURSE DELETIONS

ENGD97H  Independent Studies in Literature
Rationale:
We have found that half course independent studies function inconsistently, and have generally failed to serve students well. For qualified students, who are interested in pursuing a long-term independent studies project, ENGD98Y will provide a more productive framework within which to pursue this work.
ENGD99H  Independent Studies in Literature
Rationale:
We have found that half course independent studies function inconsistently, and have generally failed to serve students well. For qualified students, who are interested in pursuing a long-term independent studies project, ENGD98Y will provide a more productive framework within which to pursue this work.

NEW COURSES

ENGA18H  Poetry and Popular Culture
Poetry is often seen as distant from daily life. We will instead see how poetry is crucial in popular culture, which in turn impacts poetry. We will read such popular poets as Ginsberg and Plath, look at poetry in film, and consider song lyrics as a form of popular poetry.
Prerequisites: None
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 22
Breadth Requirement: Arts, Literature & Language

ENGC88H  Creative Non-Fiction
An introduction to the writing of creative non-fiction through discussion and workshop sessions. Admission by portfolio. The portfolio should be left with the English departmental assistant in H331A no later than the first Monday of October. It should contain 5-10 pp. of your strongest fiction or non-fiction writing.
Prerequisites: ENGB60H or ENGB61H
Co-requisites: None
Exclusions: None
Recommended Preparation: Students should have developed a small body of creative works before enrolling in this course.
Enrolment Limit: 20
Breadth Requirement: Arts, Literature & Language

COURSE CHANGES

ENGB05H  Critical Writing about Literature
• Co-requisites:
  From: ENGB03H3 or ENGB04H3
To: None
ENGB17H  Contemporary Literature from the Caribbean
- Exclusions:
  From: ENG270Y, NEW223Y, (ENG253Y)
  To: ENG264H, ENG270Y, NEW223Y, (ENG253Y)

ENGC10H  Studies in Shakespeare
- Exclusions:
  From: None
  To: ENG336H
- Pre-requisites:
  From: [ENGB03H3 & ENGB04H3 & one of ENGB05H3 or (ENGB01H3) or (ENGB02H3)] or (ENGB10H3)
  To: [ENGB03H3 & ENGB04H3 & one of ENGB05H3 or (ENGB01H3) or (ENGB02H3)] or (ENGB10H3) and [ENGB32H3 or ENGB33H3]

ENGC21H  The Victorian Novel to 1860
- Exclusions:
  From: ENG324Y, ENG325H
  To: ENG324Y

ENGC30H  Studies in Medieval Literature
- Exclusions:
  From: None
  To: ENG311H
ENGD98Y  

Senior Essay

- Course description:
From:
A scholarly project chosen by the student and supervised by a faculty member in English. Students should discuss their proposals with appropriate faculty and the Program Director or Program Supervisor of English one term in advance of the proposed course and complete an application form (available from the Department of Humanities office H431). This course is contingent on acceptance by a faculty supervisor and the approval of the English group. The course is open only to students with a strong record (3.3 GPA or above in English courses) who are completing the last 5 courses of their degree and who have completed 2 full credits in C-level English. Depending on the subject area, this course can be counted towards the pre-1900 requirement.
To:
An intensive year-long seminar that supports students in the development of a major independent scholarly project. Drawing on workshops and peer review, bi-weekly seminar meetings will introduce students to advanced research methodologies in English and will provide an important framework for students as they develop their individual senior essays. Depending on the subject area of the senior essay, this course can be counted towards the pre-1900 requirement.
- Enrolment Limit:
From: None
To: 15
- Pre-requisites:
From: 2 C-level courses in English
To: Minimum GPA of 3.5 in English courses; 15.0 credits, of which at least 2.0 credits must be at the C- or D-level in English.
- Recommended Preparation:
From: None
To: At least one D-level course in English.
- Other:
Delete the Note: Students may count no more than 1.0 full credit of D-level independent study towards an English program.

DEPARTMENT OF HUMANITIES

COURSE DELETIONS

GASB01H  

Methodologies and Issues in Global Asia Studies

Rationale:
Course has never been offered.
**GASB10H  Introduction to South Asian Literature**  
*Rationale:*
This course was created at a time when literary studies was an integral part of the humanities program, with the future goal of a literature stream within Global Asia Studies and a future hire. Such a future stream and hire are no longer part of the program vision, as the modified vision is to incorporate literary studies within other courses on history, media, arts etc. This course was offered in the past with a sessional instructor. Student response was also low. Lacking a permanent faculty base and a continued programmatic basis, it seems best to delete it.

**GASB11H  Introduction to Chinese Literature**  
*Rationale:*
This course was created at a time when literary studies was an integral part of the humanities program, with the future goal of a literature stream within Global Asia Studies and a future hire. Such a future stream and hire are no longer part of the program vision, as the modified vision is to incorporate literary studies within other courses on history, media, arts, language etc. This course was offered once in the past with an instructor who is now heavily committed to other teaching and other programs, and now the only option to teach it is by hiring another sessional instructor. Lacking a faculty base in Global Asia Studies and a continued programmatic basis, it seems best to delete it. The expectation is that several other China-centered courses in Global Asia Studies and also upper-level Chinese language courses in LGG - both regularly offered - will meet student needs in this area.

**GASB34H  Culture and Society in Classical South Asia**  
*Rationale:*
This course was taught by a faculty member on a short-term contract. It had to be cancelled this year due to very low enrolment. It does not fit into any other faculty members’ teaching plans.

**GASC12H/RLGC12H  Contemporary Engaged Buddhist Movements in Asia**  
*Rationale:*
Course has never been offered.

**GASC31H  Self and Imagination in Pre-modern China**  
*Rationale:*
This course was offered for only one year when we had a faculty member on a short-term contract. It did not get a good response. The contract ends this year it does not fit into the program’s future priorities, nor into any other faculty members’ teaching plans. There are several other China-centred courses in the program which are taught by regular faculty and that have met positive responses from students.

**GASC34H  Texts and Learning in Classical South Asia**  
*Rationale:*
This course was offered for only one year when we had a faculty member on a short-term contract. It did not get a good response. The contract ends this year it does not fit into the program’s future priorities, nor into any other faculty members’ teaching plans.
GASC51H  Politics and Culture in Modern South Asia
_Rationale:_
Course has never been offered.

GASD50H  Senior Seminar: Social and Cultural Aspects of South Asian Societies
_Rationale:_
Course has never been offered.

HISB18H  History on Film
_Rationale:_
Being replaced by a new course HISC08H [Colonialism on Film].

HISB20H  Victorian Britain
_Rationale:_
HISB20H and HISB21H are being deleted will be replaced by a consolidated course in the next curriculum cycle.

HISB21H  Twentieth-Century Britain
_Rationale:_
HISB20H and HISB21H are being deleted will be replaced by a consolidated course in the next curriculum cycle.

HISB70H  Kievan Rus and Muscovy, 850-1689
_Rationale:_
The instructor for this course has retired. No other faculty are available to teach it.

HISB71H  Imperial Russia, 1682-1900
_Rationale:_
The instructor for this course has retired. No other faculty are available to teach it.

HISB72H  Revolutionary Russia, 1900-Present
_Rationale:_
The instructor for this course has retired. No other faculty are available to teach it.

HISB90H  Modern Europe I: The Nineteenth Century
_Rationale:_
HISB90H and HISB91H are being deleted and replaced by the consolidated course HISB92H. This deletion will stream-line courses - the History program no longer has two faculty teaching modern European history. Compressing HISB90H and B91H into one course reflects the staffing realities of the history program, and, more importantly, it reflects a desire to offer a more synthetic survey that will help students more quickly reach the C level.
HISB91H  Modern Europe II: The Twentieth Century  
*Rationale:*  
HISB90H and HISB91H are being deleted and replaced by the consolidated course HISB92H. This deletion will stream-line courses - the History program no longer has two faculty teaching modern European history. Compressing HISB90H and B91H into one course reflects the staffing realities of the history program, and, more importantly, it reflects a desire to offer a more synthetic survey that will help students more quickly reach the C level.

HISC47H  Canadian Labour History  
*Rationale:*  
This deletion reflects the personnel changes in Canadian history. This course will not be taught in the immediate to long-term future.

HISC78H  Social History of Imperial Russia, 1700-1900  
*Rationale:*  
The instructor for this course has retired. No other faculty are available to teach it.

HISC79H  Social History of Revolutionary Russia, 1900-Present  
*Rationale:*  
The instructor for this course has retired. No other faculty are available to teach it.

HISC90H  Modern Germany I: The Nineteenth Century  
*Rationale:*  
The instructor for this course has retired. No other faculty are available to teach it.

HISC91H  Modern Germany II: The Twentieth Century  
*Rationale:*  
The instructor for this course has retired. No other faculty are available to teach it.

HISD40H  Canadian Political Leadership, 1608 to the Present  
*Rationale:*  
The course content no longer matches the research interests and expertise of faculty in the department, nor does it augment the department’s core and developing strengths in transnational, imperial/empire, and social/cultural histories.

HISD42H  Selected Topics in Canadian Diplomatic and Military History  
*Rationale:*  
The course content no longer matches the research interests and expertise of faculty in the department, nor does it augment the department’s core and developing strengths in transnational, imperial/empire, and social/cultural histories.

LINC18H  Writing Systems  
*Rationale:*  
The course instructor is retiring in December 2011. The course is not “core” and none of the remaining faculty will be able to teach it in the foreseeable future.
VPAC03H  Intermediate Seminar  
*Rationale:*  
The only role this course has is in the frozen VPA Specialist in Art and Culture; it will no longer have a place in the revised Specialist Program. In view of this it seems rational to delete the course.

VPAC47H  The Body in Modernity: Theories and Representations  
*Rationale:*  
This is double numbered in VPA and ENG and taught by two instructors - one in VPA and one in English. The VPA instructor is scheduled to retire shortly and we wish to delete the VPA course designation. This was a required course in the VPA Specialist in Art and Culture, but it will not be required in the revised Specialist program. The instructor in English has shown interest in continuing this as an ENG course.

VPAC48H  The Body in Contemporary Culture: Theories and Representations  
*Rationale:*  
This is double numbered in VPA and ENG and taught by two instructors - one in VPA and one in English. The VPA instructor is scheduled to retire shortly and we wish to delete the VPA course designation. This was a required course in the VPA Specialist in Art and Culture, but it will not be required in the revised Specialist program. The instructor in English has shown interest in continuing this as an ENG course.

VPAD05H  Senior Project  
*Rationale:*  
The only role this course has is in the frozen VPA Specialist in Art and Culture; it will no longer have a place in the revised Specialist Program. In view of this it seems rational to delete the course.

VPSB82H  Introduction to Web Based Work  
*Rationale:*  
The course is being replaced by VPSB72H Digital Publishing

VPSC74H  Advanced Web Based Projects  
*Rationale:*  
The course is being replaced by VPSB72H Digital Publishing
NEW COURSES

AFSC30H  Language and Society in the Arab World

*Description:*
An examination of the relationship between language, society and identity in the Arab world, with special emphasis on North Africa. Topics include: colonial and postcolonial periods; the role of Arabic in pan-Arab identity; multilingualism, class and education; ideologies of gender and language; and ethno-linguistic revitalization among Berbers in North Africa.

*Prerequisites:* Any B-level course in African Studies, Linguistics, History, or Women’s and Gender Studies
*Co-requisites:* None
*Exclusions:* None
*Recommended Preparation:* None
*Enrolment Limit:* 50
*Breadth Requirement:* Arts, Literature & Language

GASB06H  Asian Visual Culture and Media

This course introduces students to contemporary visual culture and media in Asia. Combining theories of visual culture with a focus on Asia, it surveys a diverse array of cultural forms such as advertisements, television series, films, and social media, and examines the role that images play in contemporary Asian societies. Same as MDSB06H.

*Prerequisites:* None
*Co-requisites:* None
*Exclusions:* MDSB06H
*Recommended Preparation:* None
*Enrolment Limit:* None
*Breadth Requirement:* History, Philosophy & Cultural Studies

GASB15H  The Arts of South Asia

The course will provide students with an introduction to the arts of South Asia, from classical to modern, and from local to global. Fields of study may include music, dance, drama, literature, film, graphic arts, decorative arts, magic, yoga, athletics, and cuisine, fields viewed as important arts for this society.

*Prerequisites:* None
*Co-requisites:* None
*Exclusions:* None
*Recommended Preparation:* None
*Enrolment Limit:* None
*Breadth Requirement:* Arts, Literature & Language
**GASC45H  Film and Popular Cultures in East Asia**
This course offers students a critical perspective on film and popular cultures in East Asia. The course examines East Asian filmic industries, and the role they play in shaping worldviews, aesthetics, ethical norms, folk beliefs, and other socio-cultural aspects in China, Hong Kong, Taiwan, Korea, and Japan.

*Prerequisites:* Any 4.0 credits  
*Co-requisites:* None  
*Exclusions:* None  
*Recommended Preparation:* None  
*Enrolment Limit:* None  
*Breadth Requirement:* Arts, Literature & Language

**GASD03H  Senior Seminar: Special Topics in Global Asia Studies**
This course offers an in-depth, special study of important topics in the study of Global Asia. Special topics will vary from year to year depending on the expertise of the visiting professor. It is conducted in seminar format with emphasis on discussion, critical reading, and writing of research papers.

*Prerequisites:* Any 8.0 credits  
*Co-requisites:* None  
*Exclusions:* None  
*Recommended Preparation:* None  
*Enrolment Limit:* 15  
*Breadth Requirement:* History, Philosophy & Cultural Studies

**HISA10H  Hellhound on My Trail: Living the Blues in the Mississippi Delta, 1890-1945**
This course examines black life and culture in the cotton South through the medium of the blues. Major topics include: land tenure patterns in southern agriculture, internal and external migration, mechanisms of state and private labour control, gender conventions in the black community, patterns of segregation and changing race relations.

*Prerequisites:* None  
*Co-requisites:* None  
*Exclusions:* HIS478H  
*Recommended Preparation:* None  
*Enrolment Limit:* 18  
*Breadth Requirement:* History, Philosophy & Cultural Studies

**HISB92H  Modern Europe: From 1789 to the Present**
Europe from the French Revolution of 1789 to the present day. Major topics include revolution, industrialization, nationalism, imperialism, the World Wars, economic crisis, cultural modernism, the Holocaust, the Cold War, and the European Union.

*Prerequisites:* None  
*Co-requisites:* None  
*Exclusions:* HISB90H, HISB91H, HIS241H, HIS242H  
*Recommended Preparation:* None  
*Enrolment Limit:* None  
*Breadth Requirement:* History, Philosophy & Cultural Studies
HISC08H    Colonialism on Film
An examination of the depiction of empires and the colonial and postcolonial experience on film. This course also introduces students to the development of national cinemas in Asia, Africa, the Caribbean and the South Pacific. The relationship between academic history and history as imagined by filmmakers is a key theme.
Prerequisites: None
Co-requisites: None
Exclusions: HISB18H3
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: History, Philosophy & Cultural Studies

HISC26H    The French Revolution and the Napoleonic Empire
The course will present the causes, processes, principles, and effects of the French Revolution. It will additionally present the relationship between the French Revolution and the Haitian Revolution and look at the rise of Napoleon Bonaparte.
Prerequisites: None
Co-requisites: None
Exclusions: HIS457H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: History, Philosophy & Cultural Studies

HISC27H    The History of European Sexuality: From Antiquity to the Present
The course will cover major developments in sexuality in Europe since antiquity. It will focus on the manner in which social, political, and economic forces influenced the development of sexuality. It will also analyze how religious beliefs, philosophical ideas, and scientific understanding influenced the ways that sexuality was understood.
Prerequisites: None
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60
Breadth Requirement: History, Philosophy & Cultural Studies

HISC70H    The Caribbean Diaspora
The migration of Caribbean peoples to the United States, Canada, and Europe from the late 19th century to the present. The course considers how shifting economic circumstances and labour demands, the World Wars, evolving imperial relationships, pan-Africanism and international unionism, decolonization, natural disasters, and globalization shaped this migration.
Prerequisites: Any 4.0 credits.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: History, Philosophy & Cultural Studies

2012-13 Undergraduate Curriculum Changes Approved by Governance.30 March 2012.
HISD12H Making it Strange: Modernisms in European Art and Ideas, 1900-1945
The course will focus on major developments in art and ideas in early twentieth century Europe. We will study experimental forms of art and philosophy that fall under the broad category of Modernism, including painting, music, literature, and film, as well as philosophical essays, theoretical manifestos, and creative scholarly works.

Prerequisites: One C-level credit in European History
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

HISD45H Canadian Settler Colonialism in Comparative Context
A seminar on Canadian settler colonialism in the 19th and 20th centuries that draws comparisons from the United States and elsewhere in the British Empire. Students will discuss colonialism and the state, struggles over land and labour, the role of race, gender, and geography in ideologies and practices of colonial rule, residential schools, reconciliation and decolonization.

Prerequisites: HISB40H3 or HISB41H3
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 15
Breadth Requirement: History, Philosophy & Cultural Studies

MDSB06H Asian Visual Culture and Media
Description: This course introduces students to contemporary visual culture and media in Asia. Combining theories of visual culture with a focus on Asia, it surveys a diverse array of cultural forms such as advertisements, television series, films, and social media, and examines the role that images play in contemporary Asian societies. Same as GASB06H.

Prerequisites: MDSA01H
Co-requisites: None
Exclusions: GASB06H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: History, Philosophy & Cultural Studies
VPSB72H  Digital Publishing

Description:
A course for students interested in publishing artworks in digital formats such as e-books, short-run printed catalogues and blogs. Lessons will identify common editorial and image preparation concerns while introducing software for assembling images, videos, sounds, graphics and texts into coherent and intelligently-designed, digital publications. Creative solutions are expected.
Prerequisites:  VPSA62H and VPSA63H
Co-requisites:  None
Exclusions:  None*
Recommended Preparation:  None
Enrolment Limit:  20
Breadth Requirement:  Arts, Literature & Language

VPSB73H  Experiencing Visual and Contemporary Arts: Presentations and Practices 1

Description:
This course is designed to offer students direct encounters with artists and curators through studio and gallery visits. Field encounters, written assignments, readings and research focus on contemporary art and curatorial practices. The course will provide skills in composing critical reviews, artist statements and written proposals for art projects.
Prerequisites:  VPSA62H and VPSA63H
Co-requisites:  None
Exclusions:  None
Recommended Preparation:  None
Enrolment Limit:  20
Breadth Requirement:  Arts, Literature & Language

VPSC51H  Experiencing Visual and Contemporary Arts: Presentations and Practices 2

Description:
This course focuses on the finer details of curating contemporary art. Students will delve into the work of selected artists and curators with an emphasis on the conceptual and philosophical underpinnings of their projects. Term work will lead to a professionally curated exhibition organized by the students.
Prerequisites:  VPSB73H
Co-requisites:  None
Exclusions:  None
Recommended Preparation:  None
Enrolment Limit:  20
Breadth Requirement:  Arts, Literature & Language
VPSC89H  Digital Animation 2

*Description:*
A project-based course, building upon concepts developed in VPSB89H Introduction to Digital Animation. Students will refine their control of sound, movement and image quality. This course will also introduce three-dimensional wire frame and ray-tracing techniques for constructing convincing 3-D animated objects and scenes as they apply to contemporary artistic practices.

*Prerequisites:* VPSB89H
*Co-requisites:* None
*Exclusions:* None
*Recommended Preparation:* None
*Enrolment Limit:* 20
*Breadth Requirement:* Arts, Literature & Language

**COURSE CHANGES**

AFSA02H  African Worldviews
- Level change:
  *From:* A
  *To:* B. Proposed course code is AFSB01H
- Exclusions:
  *From:* None
  *To:* (AFSA02H)

GASC33H  Critical Perspectives in Global Buddhism
- Pre-requisites:
  *From:* GASB30H3 or GASB33H3 or RLGB02H3 or (RLGB03H3) or VPHB67H3 or (VPHC58H3)
  *To:* Any 4.0 credits.
- Co-requisites:
  *From:* GASA01H3 or GASA02H3 or RLGB03H3 or (RLGB03H3) or VPHB67H3 or (VPHC58H3)
  *To:* None

GASC40H  Chinese Media and Politics
- Course description:
  *Add:* Same as MDSC40H to existing description.
  *Enrolment Limit:*
  *From:* 50
  *To:* 75
- Exclusions:
  *From:* None
  *To:* MDSC40H
- Pre-requisites:
  *From:* GASB01H3 or GASB02H3
  *To:* 4.0 credits, including HUMA01H.
GASC41H  Media and Popular Culture in East and Southeast Asia
  • Course description:
    Add: Same as MDSC41H and IEEC21H to existing description.
  • Enrolment Limit:
    From: 50
    To: 75
  • Exclusions:
    From: (HUMC54H3) IEEC21H3
    To: (HUMC54H3), IEEC21H3 and MDSC41H3
  • Pre-requisites:
    From: GASA01H3 or GASA02H3 or MDSA01H3 or MDSB05H3 or (HUMB74H3) or (NMEA20H3)
    To: 4.0 credits, including HUMA01H.

GASC42H  Film and Popular Culture in South Asia
  • Pre-requisites:
    From: GASA01H3 or GASA02H3
    To: Any 4.0 credits.

GASC57H  China and the World
  • Pre-requisites:
    From: At least 4.0 credits completed.
    To: GASA01H3 or GASB58H3
  • Recommended Preparation:
    From: HISB58H3
    To: None

GASD56H  ‘Coolies’ and Others: Asian Labouring Diasporas in the British Empire
  • Pre-requisites:
    To: 8.0 credits, at least 2.0 of which should be at the B- or C-level in Modern History.
HISB41H  Canadian History Since 1885
  • Course title:
To: Making of Modern Canada
  • Course description:
From:
Topics include cultural conflict: the optimism of the Laurier period, the impact of the two world wars, political independence, Americanization and relations with the United States, regionalism, and relations between English-speaking and French-speaking Canada.
To:
Students will be introduced to historical processes central to the history of Canada’s diverse peoples and the history of the modern age more generally, including the industrial revolution, women’s entry into social and political “publics,” protest movements, sexuality, and migration in the context of international links and connections.
  • Enrolment Limit:
From: None
To: 125
  • Exclusions:
From: (HIS262Y), HIS263Y
To: None
  • Pre-requisites:
From: None, but HISB40H3 highly recommended.
To: None

HISB61H  Europe in the High and Late Middle Ages (1053-1492)
  • Pre-requisites:
From: HISB60H3 highly recommended
To: None

HISC14H  Edible History: History of Global Foodways
  • Pre-requisites:
From: Two of (HISA01H3), (HISA02H3), HISA04H3, HISA05H3
To: 2.5 credits in History.

HISC52H  A History of Ethiopia
  • Pre-requisites:
From: A History credit considering Europe, Africa or Asia before 1900. Highly recommended: One of (HISB01H3), HISB03H3, HISB60H3 or HISB61H3
To: 1.0 credit in History
HISC57H  China and the World
  • Pre-requisites:
  From: At least 4.0 credits completed.
To: HISA06H3 or HISB58H3
  • Recommended Preparation:
  From: HISB58H3
To: None

HISD04H  Missionaries and Converts in the Early Modern World
  • Pre-requisites:
  From: HISB62H3 or (HISB80H3) or (HISB81H3)
To: HISB62H3
  • Enrolment Limit:
  From: 18
To: 15

HISD05H  Between Two Worlds? Translators and Interpreters in History
  • Pre-requisites:
  From: [HISB62H3 & HISC60H3]
To: 1.0 credits, at or above the B-level, in History/GAS/IEE/CLA.

HISD08H  Borderlands and Beyond: Thinking about a North American History
  • Pre-requisites:
  From: Any 11 credits, including [HISB30H3 & HISB31H3 or HISB40H3 & HISB41H3] & one C-level course in Canadian or United States History.
To: [HISB30H3 & HISB31H3] or [HISB40H3 & HISB41H3]

HISD44H  Nearby History: The Method and Practice of Local History
  • Pre-requisites:
  From: At least one B-level and one C-level course in history, preferably Canadian history.
To: 4.0 credits in history.

HISD50H  Southern Africa: 1652-1910
  • Pre-requisites:
  From: HISB50H3 or (HISC50H3) or any 2.5 credits in History.
To: HISB50H3 or HISB51H3 or HISC55H3
HISD52H  East African Societies in Transition
  • Pre-requisites:
  From: [One of HISB50H3, HISB51H3, (HISC50H3), (HISC51H3)] or any 2.5 credits in History.
  To: HISB50H3 or HISB51H3 or HISC55H3

HISD56H  ‘Coolies’ and Others: Asian Labouring Diasporas in the British Empire
  • Pre-requisites:
  From: [One of HISB20H3, HISB21H3, HISB40H3, HISB50H3, (HISB55H3), (HISB56H3),
        HISB57H3, HISB90H3, HISC14H3, (HISC25H3), HISC32H3, HISC36H3, HISC45H3,
        (HISC54H3), HISC58H3 or HISC60H3] or 2.0 credits at the B- or C-level in Modern History.
  To: 8.0 credits, of which at least 2.0 credits should be at the B- or C-level in Modern History.

HISD60H  Travelling and Travel-Writing from the Middle Ages to the Early Modern Period
  • Pre-requisites:
  From: HISB62H3.
  To: HISB62H3 or HISC60H3 or HISC65H3
  • Recommended Preparation:
  From: HISC60H3
  To: None

IEEC21H  Media and Popular Culture in East and Southeast Asia
  • Course description:
  From:
  This course introduces students to media industries and commercial popular cultural forms in East and Southeast Asia. Topics include reality TV, TV dramas, anime, and manga as well as issues such as regional cultural flows, global impact of Asian popular culture, and the localization of global media in Asia.
  Same as GASC41H3.
  To:
  This course introduces students to media industries and commercial popular cultural forms in East and Southeast Asia. Topics include reality TV, TV dramas, anime, and manga as well as issues such as regional cultural flows, global impact of Asian popular culture, and the localization of global media in Asia.
  Same as GASC41H3 and MDSC41H3.
  • Enrolment limit:
  From: 50
  To: 75
  • Exclusions:
  From: (HUMC54H3) GASC41H3
  To: (HUMC54H3), GASC41H3, MDSC41H3
• Pre-requisites:
From: None
To: Any 4 credits including HUMA01H3
• Co-requisites:
From: 0.5 B-level credit in IEE or 1.0 credit in Humanities, English or Philosophy at the B, C or D-level.
To: None

LINC28H Language and Gender
• Pre-requisites:
From: One full credit at the B-level in ANT, LIN, SOC or WST
To: LINA01H3 and one full credit at the B-level in ANT, LIN, SOC or WST

MDSA02H From Print to Digital: History of Media and Technology
• Course title:
To: History of Media and Technology

MDSB05H Media and Globalization
• Course description:
From:
This course introduces students to the variety of ways cultural and social theorists have addressed notions of "globalization" and the media; and to focus our eyes and research concerns on media systems and practices in the non-western world: Asian, Latin American, and Arabic countries.
To:
This course introduces students to the variety of ways cultural and social theorists have addressed notions of "globalization" and the media. The course focuses on media systems and practices in the non-western world, including Asia, Latin America, and the Middle East.
• Exclusions:
From: (HUMB74H3), GASB05H3
To: GASB05H3
MDSB25H Media Ownership and Journalism

• Course title:
• To: Political Economy of Media
• Course description:

From:
This course examines how the political economy of news organizations shapes the process of news gathering, editing and publishing. It critically examines the implications of hyper-commercialization of media for journalism, and assesses the future of the newspaper industry.

To:
This course applies concepts and principles developed by political economy theorists to the economic structure and policies that influence communication and media systems. These concepts are used to analyze the major media industries, including print, radio, television, film, video, recorded music, video-game, telecommunications, online communication and advertising.

• Pre-requisites:

From: [MDSA01H3 or (NMEA20H3)] or [((MDSA21H3) or JOUA01H3) & ((MDSA22H3) or JOUA02H3)]
To: MDSA01H3 or (NMEA20H3)

MDSB61H Critical Approaches to Digital Media

• Pre-requisites:

From: Any 4.0 credits
To: MDSA01H3

MDSC02H Topics in Media, Identities and Politics

• Course description:

From:
This course explores the centrality of mass media such as television, film, the Internet and mobile media in the formation of multiple identities in the context of globalization, and the role of media as focal points for various cultural and political contestations.

To:
This course explores the centrality of mass media such as television, film, the Web and mobile media in the formation of multiple identities and the role of media as focal points for various cultural and political contestations.

• Pre-requisites:

From: Any 5.0 credits including [MDSA01H3 or (NMEA20H3)] or [((MDSA21H3) or JOUA01H3) & ((MDSA22H3) or JOUA02H3)]
To: 5.0 credits, including [MDSA01H3 or (NMEA20H30)]
MDSC63H  Legal and Ethical Issues in Media Studies
•  Course description:
From:
Introduces students to legal and ethical issues in media, including journalism, advertising, and entertainment. Students learn legal principles and ethical theory and apply them to media industries and practices. Topics include issues of access, privacy, intellectual property and copyright, libel and slander, violence, censorship, and media democratization.
To:
Introduces students to legal and ethical issues in media. Students learn legal principles and ethical theory and apply them to media industries and practices. Topics include issues of access, privacy, intellectual property and copyright, libel and slander, violence, censorship, and media democratization.
•  Exclusions:
From: None
To: JOUA06H3
•  Pre-requisites:
From: Any 5.0 credits including [MDSA01H3 or (NMEA20H3)] or (MDSB04H3)
To: 5.0 credits, including [MDSA01 or (NMEA20H3)]

MDSD01H  Senior Seminar: Topics in Media and Arts
•  Pre-requisites:
From: Any 11 credits including [[MDSA01H3 or (NMEA20H3)] & MDSA02H3] or [(MDSA21H3) or JOUA01H3] & [(MDSA22H3) or JOUA02H3]
To: 10.0 credits, including [MDSA01 or (NMEA20H3)]

MDSD02H  Senior Seminar: Topics in Media and Society
•  Pre-requisites:
From: Any 11 credits including [[MDSA01H3 or (NMEA20H3)] & MDSA02H3] or [(MDSA21H) or JOUA01H3] & [(MDSA22H3) or JOUA02H3]
To: 10.0 credits including [MDSA01 or (NMEA20H3)]
**NMED01H  New Media Senior Project**

- **Course description:**
  
  From:
  This course requires students to create a new media project, combining their learning in new media with another academic discipline (typically their other major). Projects can be websites, CD's or other suitable media. All projects will be evaluated both by the course convener and by a supervisor in another suitable academic discipline.

  To:
  
  Students in this course develop a new media project that responds to, analyses, or furthers their research into theoretical issues around digital media practices and artefacts. Projects may focus on digital media ranging from the internet to gaming to social networking, including websites, CD-ROMs, DVDs, mobile apps, and Virtual and Augmented Reality technologies.

- **Pre-requisites:**
  
  From: Completion of 15 full credits including [MDSA01H3 or (NMEA20H3)], [MDSB62H3 or (NMEB20H3)], NMEB06H3, NMEB08H3, NMEB09H3, NMEB10H3 & NMED20H3.

  To: Completion of 15 credits including Centennial College courses listed in New Media Group 1 & New Media Group 2

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**NMED20H  Theory and Practice of New Media**

- **Course description:**
  
  From:
  A seminar course providing critical reflection on digital media applications and their implementation in a variety of settings, including education, publishing, performing arts, video and film production. Students will also examine the ideological, political, structural, and representational assumptions underlying much of new media production and consumption in contemporary society.

  To:
  
  A seminar course providing critical reflection on digital media applications and artefacts in contemporary life, including business, information, communication, entertainment, and creative practices. Students examine the ideological, political, structural, and representational assumptions underlying much of new media production and consumption from both theoretical and practice-based perspectives.

- **Pre-requisites:**
  
  From: NMEB05H3, NMEB06H3, NMEB08H3, NMEB09H3 & NMEB10H3

  To: Completion of 15 full credits including Centennial College courses listed in New Media Group 1 & New Media Group 2
VPAA06H  Visual and Performing Arts in the Digital Age
  • Title:
To: Visual and Performing Arts Management in the Digital Age
  • Enrolment Limit:
From: 40. Priority will be given to students in VPA programs, New Media Studies and Humanities (Co-op).
To: 40. Priority will be given to students in Arts Management, then other ACM programs and Humanities (Co-op)
  • Recommended Preparation:  
From: None  
To: VPAA10H

VPAB05H  Introduction to Contemporary Cultural Theory
  • Pre-requisites:  
From: Any 4 full credits  
To: 4.0 credits, including VPAA10H3.

VPAB07H  Equity and Diversity in Arts Organizations
  • Pre-requisites:
From: None  
To: 4.0 full credits, including VPAA10H3.
  • Co-requisites:
From: VPAB05H3  
To: None  
  • Recommended Preparation:  
From: None  
To: VPAB05H3

VPAB13H  Financial Management for Arts Managers
  • Pre-requisites:
From: VPAA10H3 & [VPAA12H3 or (VPAB12H3) or (VPAB14H3)].  
To: VPAA10H3  
  • Recommended Preparation:  
From: None  
To: VPAA12H3 or [(VPAB12H3) and (VPAB14H3)]
VPAB16H  Managing and Leading in Cultural Organizations
• Pre-requisites:
From: VPAA10H3 & [VPAA12H3 or (VPAB12H3) or (VPAB14H3)].
To: VPAA10H3
• Recommended Preparation:
From: None
To: VPAA12H3 or [(VPAB12H3) and (VPAB14H3)]

VPAC13H  Planning and Project Management in the Arts and Cultural Sector
• Pre-requisites:
From: At least 8.0 credits including VPAA10H3 & [VPAA12H3 or [(VPAB12H3) & (VPAB14H3)]] & [VPAB16H3 or MGTB23H3]
To: 8.0 credits including, VPAB13H3 & [VPAB16H3 or MGTB23H3]

VPAC15H  Cultural Policy
• Pre-requisites:
From: VPAB05H3
To: 8.0 credits, including VPAA10H3* & VPAB05H3
*Pending approval at April 17th, 2012 meeting of Academic Committee.

VPAC17H  Arts Marketing
• Pre-requisites:
From: VPAA10H3 & [[VPAA12H3 & VPAB15H3] or (VPAB12H3)]
To: VPAA10H3 & [VPAA12H3 or (VPAB12H3)]

VPDB10H  Studies in Theatre History I: From the Greeks to 1642
• Title:
To: Theatre History I: From Ritual to Renaissance
• Course description:
From:
A study of theatre history from classical Greece until the closing of the theatres in England. Using a thematic rather than chronological approach, this course will examine Western theatre within the given period, as well as in terms of the social and cultural function of theatre as an art form.
To:
A study of theatre history in social and cultural context from its origins in early human ritual through to the European Renaissance. Through specific case-study, this course will trace how ancient traditions both evolved and persisted to create the dramatic forms more familiar to us today.
VPDB10H Studies in Theatre History I: From the Greeks to 1642
• Title:
To: Theatre History I: From Ritual to Renaissance
• Course description:
From:
A study of theatre history from classical Greece until the closing of the theatres in England. Using a thematic rather than chronological approach, this course will examine Western theatre within the given period, as well as in terms of the social and cultural function of theatre as an art form.
To:
A study of theatre history in social and cultural context from its origins in early human ritual through to the European Renaissance. Through specific case-study, this course will trace how ancient traditions both evolved and persisted to create the dramatic forms more familiar to us today.

VPDB11H Studies in Theatre II: From 1642 to World War One
• Title:
To: Theatre History II: Early Modern and Popular Theatre
• Course Description
From:
A study of theatre history from the Restoration through the rise of modernism. Using a thematic rather than a chronological approach, this course will examine Western theatre within the given period, as well as in terms of the social and cultural function of theatre as an art form.
To:
A study of theatre history in social and cultural context from the Early Modern period through to WWI. Through specific case-study, this course will focus on the development of bourgeois or domestic drama, as well as on popular theatre such as Melodrama and Pantomime.

VPDB12H Studies in Modern and Contemporary Theatre
• Title:
To: Theatre History III: Modern Theatre in Global Context
• Course description:
From:
A study of twentieth-century theatre history. The developments in and practice of Western theatre from the post-World War One era to the present day.
To:
A study of theatre history in social and cultural context from WWI through to the present. Through specific case-study, this course will examine the effects of modernism on theatre, as well as the place of ancient performance traditions in a globalizing world.
VPHA46H Ways of Seeing: Introduction to Art Histories
• Exclusions:
  From: (FAH100Y), FAH102H, FAH105H
  To: (FAH100Y); FAH101H

VPHC42H Gothic Architecture
• Course description:
  From:
  The development of Gothic architecture from the beginning of the twelfth century to the middle of the thirteenth century. Emphasis on Notre-Dame in Paris, the cathedrals of Chartres, Reims, and Amiens, and a select number of monuments in England. A discussion of the sculptural programs of these churches will be included.
  To:
  Current scholarship is expanding and challenging how we decide “what is Gothic?” We will examine a variety of buildings, considering artistic culture, social, cultural and physical contexts as well. Style, building techniques, patronage, location in time and space, and importance of decoration (sculpture, stained glass, painting, tapestry) will be among topics discussed.

VPSA61H Painting I
• Pre-requisites:
  From: VPSA62H3 & VPSA63H3 & (VPSA70H3 or VPSB70H3)
  To: VPSA62H3 & VPSA63H3

VPSA70H Drawing I
• Pre-requisites:
  From: None
  To: VPSA62H3 and VPSA63H3
  • Recommended Preparation:
    From: It is recommended that students take VPSA62H3 & VPSA63H3 at the same time or before taking this course, particularly if they want to pursue a Major or Minor in Studio.
    To: None

VPSB77H Introduction to Performance Art
• Pre-requisites:
  From: One half credit in VPS or [VPDA10H3 & VPDA11H3] or [(VPDA01H3) & (VPDA02H3)]
  To: [VPSA62H3 & VPSA63H3] or [VPDA10H3 & VPDA11H3] or [(VPDA01H3) & (VPDA02H3)]
VPSB89H  Introduction to Animation Techniques
  •  Course title:
To: Introduction to Digital Animation
  •  Course description:
From:
This studio course is designed to introduce students to animated film/video making. Students will explore handmade and digital animation techniques (zoetropes, flip-books, scratched film, claymation, rotoscoping and other forms of digital animation). Readings, screenings and assignments practically and theoretically familiarize students with the animated image from its early beginnings.
To:
A non-traditional course in the digital production of non-analog, two-dimensional animation through the use of computer-based drawing, painting, photography and collage. Students will learn design strategies, experimental story lines, sound mixing and video transitions to add pace, rhythm and movement to time-based, digital art projects.
  •  Pre-requisites:
From: VPSA62H3 & VPSA63H3 & VPSA70H3 & VPSA71H3
To: VPSA62H3 & VPSA63H3 & VPSA70H3

VPSC52H  Documentary Video
  •  Course description:
From:
This course is designed to introduce students to documentary video/film making. Students will gain insight into the history and evolution of the genre through in-class screenings, readings, field trips and assignments. The course will provide students with the means to research, develop, and produce a short documentary film/video work.
To:
This course is designed to introduce students to documentary video approaches in video art. Students will gain insight into the history and development of the experimental documentary genre through screenings, readings, and field trips. The course will provide students with the opportunity to research, develop, and produce a short documentary project.

VPSC60H  Advanced Video
  •  Pre-requisites:
From: VPHA46H3 & VPSB76H3 & 1.0 additional full credit at the B- or C-level in Studio.
To: VPHA46H3 & VPSB76H3 & 0.5 additional credits at the B and/or C level in Studio.
DOUBLE NUMBERING

FREC45H French Morphology (existing course) with LINC05H Morphology (existing course)

FREC45H French Morphology
• Course title: Morphology
• Course description:
From: A study of the morphological rules governing word formation and inflection in modern French. Special attention is devoted to analytical tools and their relevance to issues surrounding second language learning.
To: Core issues in morphological theory, including properties of the lexicon and combinatorial principles governing word formation as they apply to French and English words. Same as LINC05H. Taught in English.
• Exclusions:
From: FRE387H
To: FRE 387H, LIN231H, (LINB05H3), LINC05H, LIN333H
• Pre-requisites:
From: FREB45H3 or equivalent
To: FREB45H or LINB06H

LINC05H Morphology
• Course description:
From: Core issues in morphological theory, including properties of the lexicon, combinatorial principles governing complex word-formation, and interactions between word-formation and phonology, syntax and semantics.
To: Core issues in morphological theory, including properties of the lexicon and combinatorial principles governing word formation as they apply to French and English words. Same as FREC45H.
• Exclusions:
From: LIN231H, LIN333H, (LINB05H3)
To: LIN231H, LIN333H, (LINB05H3), FRE387H, FREC45H3
• Pre-requisites:
From: None
To: LINB06H or FREB45H
• Co-requisites:
From: LINB04H3 & LINB06H3
To: None
FREC46H French Syntax (existing course) with LINC11H Syntax II (existing course)

FREC46H  French Syntax
•  Course title:  
To: Syntax II
•  Course description:  
From:
A study of various aspects of French sentences. Topics include grammatical patterns of sentences, how and why basic patterns are transformed, grammatical constraints on such transformations, and distinctive features that pose problems for FSL learners.
To:
Core issues in syntactic theory, with emphasis on universal principles and syntactic variation between French and English. Same as LINC11H. Taught in English.
•  Exclusions:
From: FRE387H
To: FRE 378H, LIN232H, LIN331H, LINC11H
•  Pre-requisites:
From: FREB45H3
To: FREB45H or LINB06H

LINC11H  Syntax II
•  Course description:  
From:
Basic issues in syntactic theory, including principles and constraints governing sentence formation and interfaces with other areas of language structure such as morphology and semantics, with emphasis on universal principles.
To:
Core issues in syntactic theory, with emphasis on universal principles and syntactic variation between French and English. Same as FREC46H.
•  Exclusions:
From: LIN232H, LIN331H
To: LIN232H, LIN331H, FRE378H, FREC46H
•  Pre-requisites:
From: LINB06H3
To: LINB06H or FREB45H
FREC47H Special Topics in Linguistics: Pidgin and Creole Languages (existing course) with LINC47H Special Topics in Linguistics: Pidgin and Creole Languages (new course)

FREC47H Special Topics in Linguistics: Pidgin and Creole Languages
• Course description:
  Add: Same as LINC47H. Taught in English.
  • Exclusions:
    From: None
  To: LINC47H
• Pre-requisites:
  From: FREB43H or FREB44H or FREB45H or LINA01H
  To: [LINA01H and LINA02H] or [FREB44H and FREB45H]

LINC47H Special Topics in Linguistics: Pidgin and Creole Languages
Description:
A study of pidgin and Creole languages worldwide. The course will introduce students to the often complex grammars of these languages and examine French, English, Spanish and Dutch-based Creoles, as well as regional varieties. It will include some socio-historical discussion. Same as FREC47H.
Prerequisites: [LINA01H and LINA02H] or [FREB44H and FREB45H]
Co-requisites: None
Exclusions: FREC47H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Arts, Literature & Language

FRED46H Special Topics in Advanced Syntax (existing course) with LIND46H Field Methods in Linguistics (new course)

FRED46H Special Topics in Advanced Syntax
• Course title:
  To: Field Methods in Linguistics
• Course description:
  From:
  A close investigation of various constructions in French and their relevance to language acquisition. Emphasis is put on syntactic contrasts between French and English, as well as theoretical and methodological implications arising from their analysis.
  To:
  Practice in language analysis based on elicited data from second language learners and foreign language speakers. Emphasis is put on procedures and techniques of data collection, as well as theoretical implications arising from data analysis. Same as LIND46H. Taught in English.
  • Exclusions:
    From: FRE489H
    To: JAL401H, LIND46H
• Pre-requisites:
  From: FREC46H3
  To: [FREB44H and FREC46H], or [LINC02H and LINC11H]
• Breadth Category:
  From: None
  To: Arts, Literature & Language

LIND46H  Field Methods in Linguistics

Description:
Practice in language analysis based on elicited data from second language learners and foreign
language speakers. Emphasis is put on procedures and techniques of data collection, as well as
theoretical implications arising from data analysis. Same as FRED46H.
Prerequisites: [FREB44H and FREC46H] or [LINC02H and LINC11H]
Co-requisites: None
Exclusions: FRED46H, JAL401H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Arts, Literature & Language

FRED49H French Semantics (existing course) with LINC12H Semantics: The Study of Meaning
(existing course)

FRED49H  French Semantics

• Course title:
  To: Semantics: The Study of Meaning
• Course level:
  From: D
  To: C – Proposed course code is FREC12H
• Course description:
  From:
  An examination of meaning and interpretation in the structure, function and use of the French
  language. The course will introduce students to approaches to the notion of meaning as applied to
  French data. Identification of elements of meaning, of their properties and of their combination
  will be discussed.
  To:
  An introduction to the role of meaning in the structure, function and use of language.
  Approaches to the notion of meaning as applied to English and French data will be
  examined. Same as LINC12H. Taught in English.
• Exclusions:
  From: FRE386H, LINC12H3, (FREC49H3)
  To: LINC12H, FRE386H, LIN341H, (FREC49H), (FRED49H)
• Pre-requisites:
  From: FREB43H3 or FREB44H3 or FREB45H3 or LINA01H3
  To: LINA01H or [FREB44H and FREB45H]
• Breadth Requirement:
  From: Arts, Literature & Language
  To: History, Philosophy & Cultural Studies

**LINC12H  Semantics: The Study of Meaning**

• Course description:
  From:
  An introduction to the role of meaning in the structure, function, and use of language.
  To:
  An introduction to the role of meaning in the structure, function and use of language.
  Approaches to the notion of meaning as applied to English and French data will be examined. Same as FREC12H.

• Exclusions:
  From: LIN341H, (FREC49H3), FRED49H3
  To: FREC12H, FRE386H, LIN341H, (FREC49H), (FRED49H)

• Pre-requisites:
  From: LINC06H3
  To: LINA01H or [FREB44H and FREB45H]

**IEEB01H Human, Inhuman and Non-Human (existing course) with MDSB01H Human, Inhuman and Non-Human (new course)*

**IEEB01H  Human, Inhuman and Non-Human**

• Course description:
  From:
  How have definitions of human and non-human been expressed and changed over time? What does it mean to define someone or something as human or inhuman? Topics might include slavery, genocide, animals, monsters, artistic expression, cybemetics, or disability. Assignments involve experiential learning. Required for all IEE majors.
  To:
  This course examines how the definition of the human is related to science and technology. The topics include the development of media and communications technology, and the intersection of popular culture with new social media and gaming. Same as MDSB01H3.

• Exclusions:
  From: None
  To: MDSB01H

• Recommended Preparation
  From: None
  To: HUMA01H

*Pending approval at April 17th, 2012 meeting of Academic Committee.
MDSB01H  Human, Inhuman and Non-Human
Description:
This course examines how the definition of the human is related to science and technology. The topics include the development of media and communications technology, and the intersection of popular culture with new social media and gaming. Same as IEEB01H3.
Prerequisites: None
Co-requisites: None
Exclusions: IEEB01H
Recommended Preparation: HUMA01H
Enrolment Limit: None
Breadth Requirement: History, Philosophy & Cultural Studies

MDSC40H  Chinese Media and Politics (new)
Existing Course Code: GASC40H3
Description:
This course examines the complex and dynamic interplay of media and politics in contemporary China, and the role of the government in this process. Same as GASC40H3.
Prerequisites: Any 4 credits including HUMA01H
Co-requisites: None
Exclusions: GASC40H3
Recommended Preparation: None
Enrolment Limit: 75
(Note: a proposal has been submitted to change the enrolment limit for GASC40H3 from 40 to 75)
Breadth Requirement: History, Philosophy & Cultural Studies

MDSC41H  Media and Popular Culture in East and Southeast Asia (new)
Existing Course Code: GASC41H and IEEC21H
Description:
This course introduces students to media industries and commercial popular cultural forms in East and Southeast Asia. Topics include reality TV, TV dramas, anime, and manga as well as issues such as regional cultural flows, global impact of Asian popular culture, and the localization of global media in Asia. Same as GASC41H3 and IEEC21H3.
Prerequisites: Any 4 credits including HUMA01H
Co-requisites: None
Exclusions: GASC41H3, IEEC21H3
Recommended Preparation: None
Enrolment Limit: 75
(Note: a proposal has been submitted to change the enrolment limit for GASC41H3 from 40 to 75)
Breadth Requirement: History, Philosophy & Cultural Studies
COURSE DELETIONS

MGTC24H  Managerial Skills
Rationale:
MGTC24 is replaced by MGTB90 and MGTC90. Students admitted to UTSC as of September 2008 are required to take MGTB90 and MGTC90

NEW COURSES

MGTD73H  Investor Psychology and Behavioural Finance
Description:
This course is designed to help students understand how different psychological biases can affect investor behaviours and lead to systematic mispricing in the financial market. With simulated trading games, students will learn and practice various trading strategies to take advantage of these market anomalies.
Prerequisites: MGTC09H
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 40
Breadth Requirement: Social & Behavioural Sciences

MGTD77H  Financial Modeling and Trading Strategies
Description:
This course integrates finance theories and practice by using financial modeling and simulated trading. Students will learn how to apply the theories they learned and to use Excel and VBA to model complex financial decisions. They will learn how the various security markets work under different simulated information settings.
Prerequisites: None
Co-requisites: MGTC71H3 and MGTD75H3
Exclusions: RSM434H
Recommended Preparation: None
Enrolment Limit: 40
Breadth Requirement: Social & Behavioural Sciences

COURSE CHANGES

ECMC11H  Introduction to Regression Analysis
• Exclusions:
From: ECO374H, ECM375H, (ECMB13H3). ECMC11H3 may not be taken after or concurrently with STAC67H3 or ECO327Y.
To: ECO374H, ECM375H, (ECMB13H3), STA302H1. ECMC11H3 may not be taken after STAC67. ECMC11 may not be taken after or concurrently with ECO327Y.
DEPARTMENT OF PHILOSOPHY

NEW COURSES

PHLB12H  Philosophy of Human Sexuality
Description:
Philosophical issues about sex and sexual identity in the light of biological, psychological and ethical theories of sex and gender; the concept of gender; male and female sex roles; perverse sex; sexual liberation; love and sexuality.
Prerequisites: None
Co-requisites: None
Exclusions: PHL243H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: History, Philosophy & Cultural Studies
COURSE CHANGES

PHLB55H  Puzzles and Paradoxes
• Breadth Requirement:
  From: History, Philosophy & Cultural Studies
  To: Quantitative Reasoning

PHLC03H  Topics in the Philosophy of Art
• Pre-requisites:
  From: Any 5.0 full credits, including 1.5 full credits in Philosophy
  To: 5.0 full credits, including PHLB03H3 and 1.0 additional credit in Philosophy.

PHLC05H  Ethical Theory
• Exclusions:
  From: (PHLB01H3), PHL375H
  To: (PHLC01H3), PHL375H
• Pre-requisites:
  From: Any 5 full credits, including PHLA11H3 and another 1.0 full credit in Philosophy
  Any B-level PHL Ethics course
  To: 5.0 full credits, including one of [PHLB02H3, PHLB05H3, PHLB06H3, PHLB07H3, PHLB08H3, PHLB09H3, PHLB36H3] and 1.0 additional credit in Philosophy.
• Recommended Preparation:
  From: Any B-level PHL Ethics course
  To: None

PHLC06H  Topics in Ethical Theory
• Pre-requisites:
  From: Any 5 full credits, including PHLA11H3 and another 1.0 full credit in Philosophy
  To: 5.0 full credits, including one of [PHLB02H3, PHLB05H3, PHLB06H3, PHLB07H3, PHLB08H3, PHLB09H3, PHLB36H3] and 1.0 additional credit in Philosophy.
• Recommended Preparation:
  From: Recommended Preparation: Any B-level PHL Ethics course
  To: None

PHLC13H  Topics in Philosophy and Feminism
• Pre-requisites:
  From: Any 5.0 full credits, including 1.5 full credits in Philosophy
  To: 5.0 full credits, including one of [PHLB02H3, PHLB05H3, PHLB06H3, PHLB07H3, PHLB08H3, PHLB09H3, PHLB36H3] and 1.0 additional credit in Philosophy.
PHLC20H  Topics in the Theory of Knowledge
• Pre-requisites:
  From: Any 5.0 full credits, including 1.5 full credits in Philosophy
  To: 5.0 full credits, including one of [PHLB20H3, PHLB55H3, PHLB60H3, PHLB70H3, PHLB72H3, PHLB80H3, PHLB81H3, PHLB86H3] and 1.0 additional credit in Philosophy.

PHLC32H  Topics in Ancient Philosophy
• Pre-requisites:
  From: 1.5 full credits in philosophy, at least one course in the history of philosophy.
  To: 5.0 full credits, including one of [PHLB16H3, PHLB17H3, PHLB31H3, PHLB33H3, PHLB35H3, PHLB36H3] and 1.0 additional credit in Philosophy.

PHLC35H  Topics in Early Modern Philosophy: Rationalism
• Pre-requisites:
  From: Any 5.0 full credits, including 1.5 full credits in Philosophy of which at least 1.0 full credit must be at the B-level.
  To: 5.0 full credits, including one of [PHLB16H3, PHLB17H3, PHLB31H3, PHLB33H3, PHLB35H3, PHLB36H3] and 1.0 additional credit in Philosophy.
  • Recommended Preparation:
  From: PHLB35H3
  To: None

PHLC36H  Topics in Early Modern Philosophy: Empiricism
• Pre-requisites:
  From: [PHLB35H3 or PHLB60H3] & 1.0 further credit in Philosophy.
  To: 5.0 full credits, including one of [PHLB16H3, PHLB17H3, PHLB31H3, PHLB33H3, PHLB35H3, PHLB36H3] and 1.0 additional credit in Philosophy.

PHLC43H  History of Analytic Philosophy I
• Pre-requisites:
  From: Any 5 full credits, including 0.5 credit in logic, either PHLB50H3, PHLC51H3, (PHLC54H3) or MATC09H3, and 1.0 other full credit in Philosophy at the B- or C-level.
  To: 5.0 full credits, including one of [PHLB20H3, PHLB55H3, PHLB60H3, PHLB70H3, PHLB72H3, PHLB80H3, PHLB81H3, PHLB86H3] and one of [PHLB50H3, PHLC51H3, (PHLC54H3), MATC09H3] and .5 additional credits in Philosophy.
  • Recommended Preparation:
  From: PHLB60H3 or PHLB80H3 or PHLC89H3
  To: None
PHLC60H  Topics in Metaphysics
• Pre-requisites:
  From: [PHLB60H3 & 1.0 further credit in Philosophy].
  To: 5.0 full credits, including one of [PHLB20H3, PHLB55H3, PHLB60H3, PHLB70H3, PHLB72H3, PHLB80H3, PHLB81H3, PHLB86H3] and 1.0 additional credit in Philosophy.

PHLC72H  Topics in the Philosophy of Science
• Pre-requisites:
  From: [PHLB70H3 & 1.0 further credit in Philosophy].
  To: 5.0 full credits, including one of [PHLB20H3, PHLB55H3, PHLB60H3, PHLB70H3, PHLB72H3, PHLB80H3, PHLB81H3, PHLB86H3] and 1.0 additional credit in Philosophy.

PHLC84H  Seminar in Philosophy: Postcolonial Studies in Philosophy
• Pre-requisites:
  From: 2.0 full credits in Philosophy
  To: 5.0 full credits, including one of [PHLB02H3, PHLB05H3, PHLB06H3, PHLB07H3, PHLB08H3, PHLB09H3, PHLB36H3] and 1.0 additional credit in Philosophy.

PHLC86H  Issues in Philosophy of Mind
• Revised Pre-requisites:
  From: 2.0 full credits in Philosophy
  To: 5.0 full credits, including one of [PHLB20H3, PHLB55H3, PHLB60H3, PHLB70H3, PHLB72H3, PHLB80H3, PHLB81H3, PHLB86H3] and 1.0 additional credit in Philosophy.

PHLC89H  Topics in Analytic Philosophy
• Pre-requisites:
  From: Any 5 full credits, including 1.5 full credits in Philosophy
  To: 5.0 full credits, including one of [PHLB20H3, PHLB55H3, PHLB60H3, PHLB70H3, PHLB72H3, PHLB80H3, PHLB81H3, PHLB86H3] and 1.0 additional credit in Philosophy.

PHLC92H  Topics in Contemporary Political Philosophy
• Pre-requisites:
  From: Any 5 full credits, including 1.5 full credits in Philosophy of which at least 1.0 full credit must be at the B-level.
  To: 5.0 full credits, including one of [PHLB02H3, PHLB05H3, PHLB06H3, PHLB07H3, PHLB08H3, PHLB09H3, PHLB36H3] and 1.0 additional credit in Philosophy.
PHLC93H  Seminar in Philosophy: Justice
• Pre-requisites:
From: Any 5 full credits, including 1.5 full credits in Philosophy of which at least 1.0 full credit must be at the B-level.
To: 5.0 full credits, including one of [PHLB02H3, PHLB05H3, PHLB06H3, PHLB07H3, PHLB08H3, PHLB09H3, PHLB36H3] and 1.0 additional credit in Philosophy.

PHLC95H  Topics in the Philosophy of Mind
• Pre-requisites:
From: 2.0 credits in PHL including PHLB81H3.
To: 5.0 full credits, including one of [PHLB20H3, PHLB55H3, PHLB60H3, PHLB70H3, PHLB72H3, PHLB80H3, PHLB81H3, PHLB86H3] and 1.0 additional credit in Philosophy.

DEPARTMENT OF PHYSICAL & ENVIRONMENTAL SCIENCES

COURSE DELETIONS

EESC32H  Mineralogy and Petrology
Rationale:
EESC32H attempts to cover two broad and distinct areas of geology in a single term. There is not enough time for an instructor to properly cover both areas. Two new courses are being proposed - one in mineralogy and one in petrology.

EESD32H  Contaminant Fate in Terrestrial Environments
Rationale:
EESD32 is undersubscribed and does not fully satisfy the requirements of the P.Geo. accreditation. It will be replaced with a more general course on geochemistry, which will be offered at the C level.

NEW COURSES

CHMB62H  Introduction to Biochemistry
Description:
This course is designed as an introduction to the molecular structure of living systems. Topics will include the physical and chemical properties of proteins, enzymes, fatty acids, lipids, carbohydrates, metabolism and biosynthesis. Emphasis will be placed on the relationships between the chemical structure and biological function.
Prerequisites: CHMA10H, CHMA11H, CHMB41H
Co-requisites: None
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Natural Sciences
EESC20H  Geochemistry

Description:
The course will cover fundamental aspects of chemical processes occurring at the Earth’s surface. Terrestrial and aquatic geochemical processes such as: mineral formation and dissolution, redox, aqueous-solid phase interactions, stable isotopes and organic geochemistry in the environment will be covered.

Prerequisites: CHMA10H, CHMA11H, and 1.0 credits from any of EESB02H, EESB04H, EESB05H, and EESB15H.
Co-requisites: None
Exclusions: EESD32H, CHM210H, GLG202H, GLG351H
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Natural Sciences

EESC35H  Mineralogy

Description:
A comprehensive introduction to crystalline structure, crystal chemistry, bonding in rock-forming minerals, and optical properties of minerals. The course includes laboratory exercises on the identification of minerals in hand specimen and identification of minerals using polarizing microscopes.

Prerequisites: CHMA10H, CHMA11H, EESA06H
Co-requisites: None
Exclusions: EESC32H, GLG423H
Enrolment Limit: 20
Breadth Requirement: Natural Sciences

EESC36H  Petrology

Description:
This course surveys the processes that produce the chemical and mineralogical diversity of igneous, sedimentary and metamorphic rocks including: the distribution, chemical and mineral compositions of rocks of the mantel and crust, their physical properties and their relation to geological environments. Descriptive petrology for various rocks will also be covered.

Prerequisites: EESC35H
Co-requisites: None
Exclusions: EESC32H, GLG440H
Recommended Preparation: EESB15H
Enrolment Limit: 20
Breadth Requirement: Natural Sciences
EESD19H    Professional Development Seminars in Geoscience

Description:
This course consists of 12 lectures given by senior industry professionals to prepare students for post-graduate career in environmental consulting. Lectures will convey the full range of consulting activities including visits to environmental investigation sites in the Toronto area. Technical writing and oral communication skills will be stressed in assignments.

Prerequisites: Students must be enrolled in the 4th year of their Environmental Science Program.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Natural Sciences

ESTB01H    Introduction to Environmental Studies

Course description:
This course introduces the Environmental Studies Major and the interdisciplinary study of the environment through a team-teaching format. Students will explore both physical and social science perspectives on the environment, sustainability, environmental problems and their solutions. Emphasis will be on critical thinking, problem solving, and experiential learning.

Breadth Category: Social & Behavioural Sciences
Exclusions: None
Pre-requisites: Enrolment in the Major Program in Environmental Studies
Co-requisites: None
Recommended preparation: None
Enrolment Limit: 60
[The course is designed to help build a cohort of environmental studies students and introduce them to the program, and includes significant experiential learning components. For both of these reasons the size of the course needs to be limited.]

COURSE CHANGES

ASTC25H    Astrophysics of Planetary Systems
• Exclusions:
From: (ASTB21H3), (ASTC22H3)
To: (ASTB21H3), (ASTC22H3), [AST221H & AST222H]

CHMA10H    Introductory Chemistry I: Structure and Bonding
• Exclusions:
From: CHM138H, CHM139H, CHM140Y, CHM151Y
To: CHM140Y, CHM151Y
CHMA11H  Introductory Chemistry II: Reactions and Mechanisms

- Exclusions:
  From: CHM138H, CHM139H, CHM140Y, CHM151Y
  To: CHM139H, CHM140Y, CHM151Y

CHMB41H  Organic Chemistry I

- Exclusions:
  From: CHM138H, CHM151Y, CHM247H, CHM249H
  To: CHM138H, CHM151Y

CHMB42H  Organic Chemistry II

- Exclusions:
  From: CHM151Y, CHM247H, CHM249H
  To: CHM247H, CHM249H

CHMC21H  Topics in Biophysical Chemistry

- Pre-requisites:
  From: CHMB20H3 & CHMB21H3 & MATB41H3
  To: CHMB20H3 & CHMB21H3 & MATB41H3 & PHYA21H3

PHYA10H  Introduction to Physics IA

- Course content and description:
  From:
  The course is intended for students in physical, environmental and mathematical sciences. The core theme in this course is energy and energy conservation as a main concept of classical physics and its applications to macroscopic systems in one and three dimensions. This includes mechanical systems, fluid mechanics and energy in classical waves and oscillatory motion. Geometrical optics and some applications of modern optics, such as x-ray, will also be studied.
  To:
  The course is intended for students in physical, environmental and mathematical sciences. The course introduces the basic concepts used to describe the physical world with mechanics as the working example. This includes mechanical systems (kinematics and dynamics), energy, momentum, conservation laws, waves and oscillatory motion.
  - Co-requisites:
    From: MATA30H3
    To: MATA30H3 or MATA31H3
PHYA11H  Introduction to Physics IB
• Pre-requisites:
  From: Grade 12 Advanced Functions (MHF4U)
To: Grade 12 Advanced Functions (MHF4U) and Grade 12 Calculus and Vectors (MCV4U)
• Co-requisites:
  From: (MATA20H3) or MATA30H3
To: (MATA20H3) or MATA30H3 or MATA31H3

PHYA22H  Introduction to Physics IIB
• Course content and description:
  From:
The course covers the main concepts of Thermodynamics, Electricity and Magnetism and nuclear radiation. It provides basic knowledge of these topics with particular emphasis on its applications in life and environmental sciences. It also covers some of the applications of modern physics such as Atomic physics and nuclear radiation.
To:
The course covers the main concepts of Electricity and Magnetism, Optics, and Atomic and Nuclear Physics. It provides basic knowledge of these topics with particular emphasis on its applications in life sciences. It also covers some of the applications of modern physics such as atomic physics and nuclear radiation.

PHYB54H  Mechanics: From Oscillations to Chaos
• Exclusions:
  From: PHY254
To: PHY254H1, (PHYB20H3)

PHYB56H  Introduction to Quantum Physics
• Exclusions:
  From: PHY256
To: PHY256H, (PHYB25H)

DEPARTMENT OF PSYCHOLOGY

COURSE DELETIONS

PSYD90H  Seminar in Computational Cognitive Neuroscience
Rationale:
This course has not been offered for many years now and the instructors do not feel there is enough interest to offer it in future. Also, the course required students to attend many research talks, which were becoming increasingly difficult for the instructors to coordinate.
NEW COURSES

PSYA90H  WikisScholar
Description: Wikipedia is increasingly becoming the go-to location for anyone interested in learning about any topic, including topics related to Psychology. This course will allow students to take on the role of student-educator, working collaboratively to examine, enhance and create Wikipedia entries related to a set of psychology topics.
Prerequisites: 4.0-7.0 full credits including PSYA01H & PSYA02H and permission of the instructor (Note: Normally students need a cumulative CPA of at least 3.5 for permission to be granted.)
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 35
Breadth Requirement: Natural Sciences

COURSE CHANGES

PSYB51H  Perception and Cognition
• Exclusions:
From: PSY280H
To: NROC64 & PSY280H

PSYC08H  Advanced Data Analysis in Psychology
• Revised Pre-requisites:
From: [PSYB07H3 or SOCB06H3 or STAB22H3] & one additional B-level half-credit in Psychology & [if PSYB07H3 is not taken as the prerequisite, completion of a bridging module & permission of the instructor - for information see www.utsc.utoronto.ca/psych/undergraduates].
To:  [PSYB07H3 or SOCB06H3 or STAB22H3] & one additional B-level half-credit in Psychology

PSYD15H  Current Topics in Social Psychology
PSYD20H  Current Topics in Developmental Psychology
PSYD30H  Current Topics in Personality Psychology
PSYD33H  Current Topics in Abnormal Psychology
• Add Breadth Requirement Category: Social & Behavioural Sciences

PSYD50H  Current Topics in Memory and Cognition
PSYD51H  Current Topics in Perception
PSYD57H  Cognition, Health, Culture and Decision Making
PSYD66H  Current Topics in Human Brain and Behaviour
• Add Breadth Requirement Category: Natural Sciences
DEPARTMENT OF SOCIAL SCIENCES

COURSE DELETIONS

ANTC12H  Research on the Social Behaviour of Non-Human Primates
Rationale:
The instructor has retired. Her replacement has shifted the relevant material to other courses.

DTSD01H  Advanced Topics in Diaspora and Transnationalism I: Postcolonialism and Diaspora
Rationale:
The course has been replaced by a 400 level course offered at St. George campus.

DTSD02H  Advanced Topics in Diaspora and Transnationalism II: Critical Approaches to Diaspora Studies
Rationale:
The course has been replaced by a 400 level course offered at St. George campus.

POLC76H  Women in Political and Social Thought I
POLC77H  Women in Political and Social Thought II
POLD71H  Canadian Political Ideas I
POLD72H  Canadian Political Ideas II
Rationale:
The courses no longer reflect the expertise of faculty.

NEW COURSES

ANTD35H  Bioarchaeology
This course will focus on a new direction in anthropology, exploring the potential of skeletal remains in reconstructing past lifeways. This seminar style class will build upon concepts introduced in Human Osteology courses. Additionally, more advanced methods of reconstructing patterns of subsistence, diet, disease, demography and physical activity.
Prerequisites: ANTC47H and ANTC48H
Co-requisites: None
Exclusions: ANT434H, ANT441H
Recommended Preparation: None
Enrolment Limit: 45
Breadth Requirement: Natural Sciences
CITB03H  Social Planning and Community Development
This course provides an overview of the history, theory, and politics of community development and social planning as an important dimension of contemporary urban development and change. 
Prerequisites: Completion of Requirement 1 of the Major Program in City Studies.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Social & Behavioural Sciences

CITB04H  City Politics
This course is the foundations course for the city-regional governance concentration in the City Studies program and provides an introduction to the study of urban politics with particular emphasis on different theoretical and methodological approaches to understanding urban decision-making, power, and conflict.
Prerequisites: Any 4.0 credits
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 150
Breadth Requirement: Social & Behavioural Sciences

CITC12H  Local Government and Management
This course examines the structure of local government and the processes of urban policy-making in Canada. Topics include municipal elections, city council, council committees, municipal budgets, city departments, and the process of urban policy-making.
Prerequisites: CITB02H and an additional 0.5 credits from among the CIT B-level Core Courses
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

CITC14H  Environmental Planning
This course introduces students to questions of urban ecology and environmental planning and examines how sustainability and environmental concerns can be integrated into urban planning processes and practices.
Prerequisites: CITB02 and an additional 0.5 credits from among CIT B-level Core Courses.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences
CITC15H  Municipal Finance
This course examines the revenue raising capacity of municipalities from a Canadian and comparative perspective and discusses the implications of municipal finance for urban public policy, planning and the provision of municipal services. Topics include state finances, municipal taxation, inter-governmental transfers, and alternative revenue sources.
Prerequisites: CITB02H and an additional 0.5 credits from among CIT B-level Core Courses.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

CITC16H  Regional Governance and Planning
The development of large metropolitan areas cuts across municipal boundaries and many urban planning and governance issues require regional coordination. This course examines different approaches to regional governance, planning, and service delivery and highlights the institutional and political challenges to regional cooperation and policy development.
Prerequisites: CITB02H and an additional 0.5 credits from among CIT B-level Core Courses.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

CITC17H  Civic Engagement in Urban Politics
This course examines the engagement of citizen groups, neighbourhood associations, urban social movements, and other non-state actors in urban politics, planning, and governance. The course will discuss the contested and selective insertion of certain groups into city-regional decision-making processes and structures.
Prerequisites: CITB02H and an additional 0.5 credits from among CIT B-level Core Courses.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60
Breadth Requirement: Social & Behavioural Sciences

GGRB21H  Environments and Environmentalisms
This foundational course explores different conceptions of ‘the environment’ as they have changed through space and time. It also analyzes the emergence of different variants of environmentalism and their contemporary role in shaping environmental policy and practice.
Prerequisites: None
Co-requisites: None
Exclusions: ENV221H, ENV222H, GGR222H, JGE321H
Recommended Preparation: None
Enrolment Limit: 150 students
Breadth Requirement: Social & Behavioural Sciences
GGRB30H  Socio-Spatial Analysis (Intermediate GIS)
Following on GGRA30H, this course teaches intermediate GIS (e.g., generalization, spatial intelligence, and visualization) and spatial analysis methods (e.g., K-functions, Markov chains, redistricting and location-allocation, simulation, and spatial patterns for points and lines) with a focus on the use and interpretation of census data.
Prerequisites: GGRA30H
Co-requisites: STAB22H
Exclusions: GGR273H
Recommended Preparation: None
Enrolment Limit: 150 students
Breadth Requirement: Social & Behavioural Sciences

GGRB55H  Geographies of Religion and Secularism
Examines religious movements, faith-based practices, and secularism with an emphasis on transnational flows and contentious sites. Includes discussion of immigrant and transnational community formations, faith-based welfare and class formation, fundamentalisms and social movements, conflict and violence, and debates concerning gender and sexuality.
Prerequisites: 1.0 credits at the A-level in Geography, Sociology or Anthropology.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 150 students
Breadth Requirement: Social & Behavioural Sciences

GGRC24H  Socio-Natures and the Cultural Politics of ‘The Environment’
Explores the processes through which segments of societies come to understand their natural surroundings, the social relations that produce those understandings, popular representations of nature, and how ‘the environment’ serves as a consistent basis of social struggle and contestation.
Prerequisites: GGRA02H or GGRB13H
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60 students
Breadth Requirement: Social & Behavioural Sciences

GGRC26H  Geographies of Environmental Governance
Course addresses the translation of environmentalism into formalized processes of environmental governance; and examines the development of environmental institutions at different scales, the integration of different forms of environmental governance, and the ways in which processes of governance relate to forms of environmental practice and management.
Prerequisites: GGRA02H
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60 students
Breadth Requirement: Social & Behavioural Sciences
GGRC28H  Indigenous Environmental Knowledges
Examines knowledge theory and Indigenous worldviews, environmental philosophies, and values and their relations to practice. Students will be introduced to Indigenous Knowledge as it pertains to the environment through exposure to community people, political leaders, academics, activists and scholars.
Prerequisites: GGRA02H or GGRB13H
Co-requisites: None
Exclusions: ABS402H, GGR321H
Recommended Preparation: None
Enrolment Limit: 60 students
Breadth Requirement: Social & Behavioural Sciences

GGRC31H  Qualitative Geographical Methods: Place and Ethnography
Explores the practice of ethnography (i.e. participant observation) within and outside the discipline of geography and situates this within current debates on methods and theory. Topics include: the history of ethnography, ethnography within geography, current debates within ethnography, the “field,” and ethnography and “development.”
Prerequisites: 1.5 credits at the B-level in Geography.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60 students
Breadth Requirement: History, Philosophy & Cultural Studies

GGRC40H/CITC40H  Megacities and Global Urbanization
The last 50 years have seen dramatic growth in the global share of population living in megacities over 10 million population, with most growth in the global south. Such giant cities present distinctive infrastructure, health, water supply, and governance challenges, which are increasingly central to global urban policy and health.
[For GGRC40H include: Same as CITC40H / For CITC40H include: Same as GGRC40H]
Prerequisites: [GGRB02H & GGRB05H] or [CITB01H & CITB02H]
Co-requisites: None
Exclusions: [For GGRC40H: CITC40H / For CITC40H: GGRC40H]
Recommended Preparation: None
Enrolment Limit: 60 students
Breadth Requirement: Social & Behavioural Sciences
GGRC48H  Geographies of Urban Poverty
How have social and economic conditions deteriorated for many urban citizens? Is the geographic gap widening between the rich and the poor? This course will explore the following themes: racialization of poverty, employment and poverty, poverty and gender socio-spatial polarization, and housing and homelessness.
Prerequisites: [GGRB02H and GGRB05H] or [CITB01H and CITB02H]
Co-requisites: None
Exclusions: None
Recommended Preparation: 1.0 credits at the B-level in either Human Geography or City Studies
Enrolment Limit: 60 students
Breadth Requirement: Social & Behavioural Sciences

GGRC56H  Spaces of Travel: Unsettling Migration, Tourism, and Everyday Mobilities
Cultural politics and political economy of travel and mobilities across time and space. Covers migration and immigration, tourism and travel encounter, diaspora and displacement, religious missions and pilgrimages, study abroad and working holiday, transportation and communication technologies, and narratives of time travel. Addresses how these extraordinary and everyday mobilities and immobilities inform geographies of race, gender, sexuality, and nation.
Prerequisites: GGRB02H or CITB02H
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60 students
Breadth Requirement: Social & Behavioural Sciences

GGRD08H  Research Seminar in Environmental Geography
Designed for final-year Human Geography Majors, this seminar is devoted to analysis and discussion of advanced theoretical and methodological issues in Environmental Geography. Specific content will vary from year to year. Seminar format with active student participation.
Prerequisites: 15.0 credits, including completion of the following requirements from the Major Program in Human Geography: 1) Introduction, 2) Theory and Concepts, 3) Methods. Priority will be given to Geography Majors with the highest CGPA.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 25 students
Breadth Requirement: Social & Behavioural Sciences
GGRD25H  Research Seminar in Urban Spaces
Designed for final-year Human Geography Majors, this seminar is devoted to analysis and
discussion of current theoretical and methodological issues in urban geography. Specific content
will vary from year to year. Seminar format with active student participation.
Prerequisites: 15.0 credits, including completion of the following requirements from the Major
will be given to Geography Majors with the highest CGPA.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 25 students
Breadth Requirement: Social & Behavioural Sciences

HLTC05H  Social Determinants of Health
This course introduces the social determinants of health, a key feature of health research and
investigations into inequalities in population health. What are the social determinants of health?
How do they affect health outcomes? What role can governments, citizens and social movements
have in improving health and reducing health inequalities?
Prerequisites: HLTB03H
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 130 students
Breadth Requirement: Social & Behavioural Sciences

HLTC07H  Patterns of Health, Disease, and Injuries
This course will introduce students to regional, national, and global patterns of health, disease,
and injuries. The course will demonstrate how demography and epidemiology can be used to
examine these patterns and to assess the cause of health-related problems, in order to provide a
basis for broad-based preventative action.
Prerequisites: HLTA01H and [HLTB15H or (HLTA10H)]
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 90 students
Breadth Requirement: Natural Sciences
HLTC20H  Introduction to Health Economics
Introduction to health economic evaluation and quantitative tools relevant to Canadian healthcare. Topics: healthcare as a public good, demand, supply, health insurance, financing, equity, and survey of economic evaluation techniques including: cost analysis, cost-effectiveness analysis, cost-utility and cost-benefit analysis; critical assessment of economic evaluation and presentation/use of economic evaluation results. 
Prerequisites: HLTA01H3 & [HLTB15H3 or (HLTA10H3)] & [HLTC15H3 or (HLTB10H3)].
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 60 students
Breadth Requirement: Quantitative Reasoning

HLTD10H  Advanced Quantitative Health Research Methodology
This course covers economic principles and econometric methods in health studies research. Students will be expected to complete assignments using statistical programming software and to conduct their own analysis of quantitative data. Prerequisites: [HLTB15H3 or (HLTA10H3)] & [HLTC15H3 or (HLTB10H3)]
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 15 students
Breadth Requirement: Quantitative Reasoning

HLTD11H  Advanced Qualitative Health Research Methodology
This course introduces students to advanced qualitative health research methodologies. Students will become proficient in advanced sampling methods, in-depth interviewing, focus group designs, the role of qualitative health research in healthcare settings, linking qualitative to quantitative research, addressing ethical issues, and applying methodological and epistemological qualitative data collection and analysis. 
Prerequisites: [HLTB15H3 or (HLTA10H3)] & [HLTC15H3 or (HLTB10H3)]
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 15 students
Breadth Requirement: Social & Behavioural Sciences
IDSA02H/AFSA03H  Experiencing Development in Africa

*Description for IDSA02H:*  
This experiential learning course allows students to experience first-hand the realities, challenges, and opportunities of working with development organizations working in Africa. The goal is to allow students to actively engage in research, decision-making, problem solving, partnership building, and fund raising, processes that are the key elements of development work. Same as AFSA03H

*Description for AFSA03H:*  
This experiential learning course allows students to experience first-hand the realities, challenges, and opportunities of working with development organizations working in Africa. The goal is to allow students to actively engage in research, decision-making, problem solving, partnership building, and fund raising, processes that are the key elements of development work. Same as IDSA02H

*Exclusions:*  
FOR IDSA02H:  AFSA03H
FOR AFSA03H:  IDSA02H

*Pre-Requisites:* AFSA01H and IDSA01H

*Breadth Requirement:* Social & Behavioural Sciences

*Enrolment Limit:* 25 students

[Rationale for limit: The course is unusual in that it is an applied course for IDS and AFS students, and involves workshops, field trips and a conference. Enrolments are limited to students who achieved a minimum of a B grade in IDSA01H3 (Introduction to IDS) offered in the Fall term. This is to ensure that students in the course have been exposed to the broader intellectual and social contexts surrounding development discourse. They will then offer them the opportunity to examine the theories they learn in context.]

IDSC14H  The Political Economy of Food

Examines how institutions and power relations shape the production and distribution of food, particularly in the global South. The course evaluates competing theories of hunger and malnutrition. It also explores the historical evolution of contemporary food provisioning and evaluates the viability and development potential of alternative food practices.

*Prerequisites:* IDSB01H

*Co-requisites:* None

*Exclusions:* None

*Recommended Preparation:* None

*Enrolment Limit:* 35

*Breadth Requirement:* Social & Behavioural Sciences
IDSC17H  Development, Citizen Action and Social Change in the Global South
Explores the question of citizenship through theories of citizen participation and action in
dialogue with a wide range of recent empirical case studies from the Global South. Going beyond
formal rights and status, the course looks at deeper forms of political inclusion and direct
participation in decision-making on political and policy issues.
Prerequisites: IDSA01H and IDSB01H
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 30
Breadth Requirement: Social & Behavioural Sciences

POLA11H  Labels, Attachments and Identities: From Apple to ‘Zed’
Working with faculty, students will design an original survey of the public to measure opinions
towards consumer brands, political parties, and personal identities. This survey will bridge the
boundaries between marketing and political science to find commonalities and reveal distinctions
between consumer attitudes and political opinions.
Prerequisites: None
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: Social & Behavioural Sciences

POLC16H  Chinese Politics
This course will cover Chinese politics and society from 1949 to the present, with an emphasis on
the period since 1989. A central theme will be the tensions, challenges and debates that drive
decision-making, policy implementation, and social reactions in contemporary China.
Prerequisites: None
Co-requisites: None
Exclusions: JPA331Y, JMC031Y
Recommended Preparation: Some coursework either on comparative politics or some aspect of
Chinese history, language, society, or culture.
Enrolment Limit: No
Breadth Requirement: Social & Behavioural Sciences

POLC19H  Politics of the ‘Malay’ World
Indonesia, Malaysia and Singapore are radically different countries, but can be referred to as the
“Malay World” by virtue of their common linguistic heritage. This course provides an
introduction to the politics and society of these three countries from colonization to the present,
focusing on the period since 1945.
Prerequisites: None
Co-requisites: None
Exclusions: None
Recommended Preparation: Some coursework either on comparative politics or Asian Studies.
Enrolment Limit: None
Breadth Requirement: Social & Behavioural Sciences
POLC37H  Global Justice
This course examines theoretical debates about the extent of moral and political obligations to non-citizens. Topics include human rights, immigration, global poverty, development, terrorism and just war.
Prerequisites: [POLB70H and POLB71H] or PHLA11H or IDSB06H
Co-requisites: None
Exclusions: PHLB08H3
Recommended Preparation: None
Enrolment Limit: None
Breadth Requirement: History, Philosophy & Cultural Studies

POLC68H  The Constitution of Canada and the Charter of Rights and Freedoms
This course will investigate the development of Canadian constitutional law under the Constitution Act of 1982 and the Charter of Rights and Freedoms. Specific topics include criminal rights, freedom of expression, freedom of religion, equality rights, and aboriginal rights.
Prerequisites: POLB50H3 and POLB52H3
Co-requisites: None
Exclusions: POL337Y
Recommended Preparation: None
Enrolment Limit: 50 students
Breadth Requirement: Social & Behavioural Sciences

POLD45H  Constitutionalism
This course studies the theory of constitutionalism through a detailed study of its major idioms such as the rule of law, the separation of powers, sovereignty, rights, and limited government.
Prerequisites: POLB70H and POLB71H, plus one non-political theory political science course.
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 25 students
Breadth Requirement: History, Philosophy & Cultural Studies

SOCB27H  Politics & Society: Global Transformations
A sociological examination of contemporary social, economic, political, and environmental changes in a global context. Topics examined may include the changing nature of governance structures and state-society relations; the emergence of global, integrated production, trade and financial systems; and the dynamics of local and transnational movements for global social change.
Prerequisites: SOCA01H3 and SOCA02H3
Co-requisites: None
Exclusions: SOC236H
Recommended Preparation: None
Enrolment Limit: 170 students
Breadth Requirement: Social & Behavioural Sciences

2012-13 Undergraduate Curriculum Changes Approved by Governance.30 March 2012.
SOCD50H  Capstone Course: Realizing the Sociological Imagination
This course presents students with the opportunity to integrate and apply their sociological
knowledge and skills. Students will make their own original contribution to illuminating social
life by selecting their own research question, reviewing relevant sociological literature,
developing a research design, collecting and analyzing data, and composing a research paper.
Prerequisites: 10.0 credits including SOCA01H3, SOCA02H3, SOCB05H3, SOCB06H3 & [a
cumulative GPA of at least 2.7 or enrolment in the Specialist Program in Sociology].
Co-requisites: None
Exclusions: None
Recommended Preparation: None
Enrolment Limit: 15 students
Breadth Requirement: Social & Behavioural Sciences

COURSE CHANGES

ANTA02H  Introduction to Anthropology: Society, Culture and Language
  Course description:
  From:
  An introduction to socio-cultural anthropology. Addresses the concepts of culture, society, and
  language and the anthropological perspective on cultural difference and societies of varying
  scale. Family, economic, political, and religious systems are illustrated from a variety of the
  world's cultures.
  To:
  How does an anthropological perspective enable us to understand cultural difference in an
  interconnected world? In this course, students will learn about the key concepts of culture,
  society, and language. Drawing upon illustrations of family, economic, political, and
  religious systems from a variety of the world’s cultures, this course will introduce students
  to the anthropological approach to studying and understanding human ways of life.

ANTB01H  Political Ecology
ANTB05H  Culture and Society in Africa
ANTB09H  Culture through Film and Media
ANTB16H  Canadian Cultural Identities
ANTB18H  Development, Inequality and Social Change in Latin America
ANTB20H  Culture, Politics and Globalization
ANTB21H  Introduction to Linguistics Anthropology
ANTB64H  The Anthropology of Food: Consuming Passions
ANTB65H  An Introduction to Pacific Island Societies
ANTC09H  Families: Kinship and Marriage from a Cross-Cultural Perspective
ANTC25H  Anthropology and Psychology
  Description of Change:
  Remove ANTA01H from the pre-requisites for each of the above listed courses.
ANTB22H  Primate Behaviour
   •  Pre-requisites:
From:  ANTB14H3
To:  ANTA01H3

ANTC89H  The Anthropology of the Middle East
   •  Recommended Preparation:
From:  ANTB21H3
To:  None

ANTD15H  Frontiers of Socio-Cultural Anthropology
   •  Pre-requisites:
From:  ANTB19H3 & ANTB20H3 & [[ANTC31H3 & ANTC33H3] or two other comparable C-level courses]
To:  ANTB19H3 & ANTB20H3 & at least two C-level courses in socio-cultural anthropology.

ANTD24H  Theory and Methodology in Social/Cultural Anthropology
   •  Course title:
To:  The History of Anthropological Thought
   •  Course description:
From:
An overview of the history of ethnological thought. This course focuses on certain key theoretical debates which run through it and largely determine the "state of the art" today. Evolutionary, diffusionist, psychological, cross-cultural, functionalist, structuralist, and hermeneutical approaches will be considered through selected writings from such major figures as Tylor, Durkheim, Boas, Kroeber, Malinowski, Radcliffe-Brown, and Lévi-Strauss. An attempt will be made to understand these individuals in terms of the social and intellectual climates in which they wrote.
To:
An overview of the history of anthropology, this course focuses on theoretical debates that originated in fields like evolution, psychology, functionalism, structuralism and hermeneutics in works by Tylor, Durkheim, Malinowski, Lévi-Strauss and others and that remain influential. Social and intellectual climates surrounding these ideas and thinkers are considered.

CITC07H  Urban Social Policy
   •  Exclusions:
From:  None
To:  CITC10H3 if taken in the 2011 Winter session
GGRB20H  Environmental Conservation and Sustainable Development  
  • Level:  
  From: B  
  To: C – Proposed course code is GGRC44H  
  • Exclusions:  
  From: GGR233Y  
  To: GGR233Y and GGRB20H3

HLTA10H  Introduction to Health Research Methodology  
  • Level:  
  From: A  
  To: B – Proposed course code is HLTB15H3  
  • Title:  
  To: Introduction to Health Research Methodology  
  • Enrolment Limit:  
  From: 200 students  
  To: 150 students  
  [Note: this course is a specialized course for Health Studies, and the content and delivery requires an optimal enrolment limit of 150 in order to provide students with diversity in relation to practical research experience, theory, and evaluation methods. More than one section can will be mounted contingent on resource availability.]
  • Exclusions:  
  From: None  
  To: HLTA10H

HLTB10H  Introduction to Quantitative and Qualitative Research Methods in Health Studies  
  • Level:  
  From: B  
  To: C – Proposed course code is HLTC15H  
  • Title:  
  To: Introduction to Quantitative and Qualitative Health Research Methodologies  
  • Enrolment Limit:  
  From: 200 students  
  To: 80 students  
  [Note: This is an upper level specialized course for Health Studies students, which requires an enrolment limit of 80 students in order to ensure maximum student benefit. More than one section of the course can be mounted dependent upon available resources.]
  • Exclusions:  
  From: None  
  To: HLTB10H  
  • Pre-requisites:  
  From: HLTA01H3 & HLTA10H3  
  To: HLTA01H3 & [(HLTA10H3) or HLTB15H3]
HLTC03H  Politics of Canadian Health Studies
  • Title:
To: Politics of Canadian Health Policy
  • Course description:
From:
This course examines Canadian health care policies and potential solutions. The impact on health care policies of the interests of health care providers, federal and political parties and Canadians' attachment to Medicare are discussed.
To:
This course examines the role of all levels of Canadian government in health and health care. The impact of public policies, health care policy, and access to health care services on the health of populations is considered. The course also examines the role of political parties and social movements in the policy change process.
  • Pre-requisites:
From: Any 5.0 credits.
To: HLTA01H3 & POLB50H3 & POLB52H3
  • Recommended Preparation:
From: POLB50H3 & POLB52H3
To: None

HLTD01H  Directed Readings in Health Studies
  • Course description:
From:
For upper level students whose interests are not covered in one of the other courses normally offered. Courses will normally only be available to students in their final year of study. Students must obtain consent from the supervising instructor before registering for this course.
To:
This is an advanced reading course in special topics for upper level students who have completed the available basic courses in Heath Studies and who wish to pursue further intensive study on a relevant topic. Topic selection and approval will depend on the supervising instructor. Students must meet all prerequisites and obtain consent from the supervising instructor before registering for this course.
  • Enrolment Limit:
From: None
To: 15
  • Pre-requisites:
From: Permission of the instructor.
To: A minimum of 15 credits including completion of the following requirements for the Major Program in Health Studies: 1) Background Courses and Methodology, 2) Specialized methods, and 3) Introduction to Health or completion of HLTA01and HLTB03 and HLTC02, & minimum cumulative GPA of 2.8, and permission of the instructor.
  • Recommended Preparation:
From: None
To: Completion of HLTB02H3 & HLTB04H3 & HLTC03H3.
POLB11H  Statistics for Political Science and Public Policy
  •  Exclusions:
  From:  ANTCl5H3, (ECMB09Y3), ECMB11H3, PSYB07H3, SOC&06H3, STAB22H3
  To:  ECMB12H3, PSYB07H3, STAB22H3

POLC65H  Political Strategy and Policy Entrepreneurship
  •  Course title:
  To:  Political Strategy
  •  Course description:
  From:
  This course focuses on analyzing and influencing individual and collective choices of political actors to understand effective strategies for bringing about policy changes. We will draw on the psychology of persuasion and decision-making as well as literature on political decision-making and institutions, emphasizing contemporary issues.

  To:
  This course focuses on analyzing and influencing individual and collective choices of political actors to understand effective strategies for bringing about policy changes. We will draw on the psychology of persuasion and decision-making as well as literature on political decision-making and institutions, emphasizing contemporary issues. During election years in North America, special attention will be paid to campaign strategy. There may be a service-learning requirement.

  •  Enrolment Limit:
  From: None
  To: 60 students

POLC78H  Political Analysis I
  •  Course description:
  From:
  This course examines the methods of analysis used in the literature on politics. The course teaches students to identify underlying assumptions, to differentiate good from poor logic of argument, to distinguish between adequate and inadequate use of evidence and between warranted and unwarranted conclusions.

  To:
  This course examines the principles of research design and methods of analysis employed by researchers in political science. Students will learn to distinguish between adequate and inadequate use of evidence and between warranted and unwarranted conclusions.

  •  Pre-requisites:
  From: Two full credits in Political Science
  To: 1.0 credits in Political Science

  •  Breadth Requirement:
  From: History, Philosophy & Cultural Studies
  To: Social & Behavioural Science
SOCB52H  International Migration and Immigrant Incorporation
  •  Level Change:
  From:  B
To:  C – Proposed course code is SOCC52H
  •  Course description:
  From:
The course provides an overview of competing theories and concepts in the field of international migration and immigrant incorporation. Discussion puts the Canadian case in comparative perspective.
To:
The course provides an overview of competing theories and concepts in the field of international migration and immigrant incorporation. Discussion puts the Canadian case in comparative perspective. Topics include global migration flows, refugeeship, citizenship and non-citizenship, economic incorporation, children of immigrants and social exclusion.
  •  Enrolment Limit:
  From:  170
To:  60 students
  •  Exclusions:
  From: SOC210Y
To:  SOCB52H and SOC210Y
  •  Pre-requisites:
  From: SOCA01H3 & SOCA02H3
To:  SOCA01H & SOCA02H & [SOCB05H or ((SOCB40H) & (SOCB41H))] & SOCB42H & SOCB43H

SOCD23H  Practicum in Qualitative Research Methods
  •  Level Change:
  From:  D
To:  C – Proposed course code is SOCC23H
  •  Exclusions:
  From: SOC387H, (SOCC23H3)
To:  SOC302H, (SOCD23H3)

SOCD31H  Practicum in Quantitative Research Methods
  •  Level Change:
  From:  D
To:  C – Proposed course code is SOCC31H
  •  Exclusions:
  From: SOC300H, (SOCC31H3)
To:  SOC300H, (SOCD31H3)
5. OTHER CHANGES

DEPARTMENT OF HUMANITIES

Major in Intersections, Exchanges, Encounters in the Humanities

Motion:

The Department of Humanities moves that new enrolment in the Major Program in Intersections, Exchanges, Encounters in the Humanities be suspended effective immediately until the interested parties have the opportunity to complete a review of academic priorities and available resources.

Discussion:

Since the introduction of IEE a few years ago, the program has been in a state of perpetual change, making some progress in defining a distinctive and sustainable role in humanities at UTSC with potential connections to faculty in the Department of Social Sciences. However, given the uncertainty created by recent and forthcoming departmentalization in humanities and social sciences, it seems prudent to suspend admission in this young program until such time as the emerging departments can properly evaluate their alignment with IEE and the availability of faculty resources.