FOR INFORMATION **PUBLIC** **OPEN SESSION**

TO:	UTSC Academic Affairs Committee
SPONSOR:	Prof. William Gough, Vice-Principal Academic and Dean
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PRESENTER:	Prof. Katherine Larson: Vice-Dean Teaching, Learning & Undergraduate Programs
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DATE:	Wednesday, March 22, 2023
AGENDA ITEM:	13

ITEM IDENTIFICATION:

Minor Modification, Undergraduate Curriculum Changes – Sciences, Management, UTSC

JURISDICTIONAL INFORMATION:

University of Toronto Scarborough Academic Affairs Committee (AAC) "is concerned with matters affecting the teaching, learning and research functions of the Campus (*AAC Terms of Reference, 2021, Section 4*)." Under section 5.7 of its *Terms of Reference*, the Committee "receives annually from its assessors, reports on matters within its areas of responsibility."

GOVERNANCE PATH:

1. **UTSC Academic Affairs Committee [For Information] (March 22, 2023)**

PREVIOUS ACTION TAKEN:

Minor Modifications: Undergraduate Curriculum Changes

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

HIGHLIGHTS:

The Office of the Vice-Principal Academic and Dean reports, for information, all curricular changes that do not impact program and course learning outcomes or mode of delivery. These include, but are not limited to:

- Adding, deleting or moving an optional course in a program;
- Adding, deleting or moving a required course in a program, as long the change does not alter the nature of the program;
- All course deletions; and
- Changes to course level and/or designator, requisites, enrolment limits and breadth requirement categories.

This package includes minor modifications to the undergraduate curriculum, submitted by the academic units identified below. The changes are in effect as of Fall 2023, for the 2023-24 academic year.

- The Department of Anthropology
    - 1 Course Change
- The Department of Health and Society
    - 1 Program Change
        - SCMIN2088: MINOR PROGRAM IN HEALTH HUMANITIES (ARTS)
- The Department of Language Studies
    - 3 Program Changes
        - SCMIN0180: MINOR PROGRAM IN ENGLISH AND CHINESE TRANSLATION (ARTS)
        - SCSPE0506: SPECIALIST PROGRAM IN LINGUISTICS (ARTS)
        - SCSPEPLIN: SPECIALIST PROGRAM IN PSYCHOLINGUISTICS (ARTS)
    - 1 Course Change
- The Department of Management
    - 34 Course Change
    - 3 Retired Courses
        - MGTA05H3: Foundations of Business Management
        - MGTA35H3: Management Communications for non-Co-op
        - MGTA36H3: Management Communications for Co-op
- The Department of Physical & Environmental Sciences
    - 11 Program Changes
        - MAJOR PROGRAM IN BIOCHEMISTRY (SCIENCE)
        - MAJOR PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)
        - MAJOR PROGRAM IN ENVIRONMENTAL STUDIES (ARTS)
        - MAJOR PROGRAM IN PHYSICAL SCIENCES (SCIENCE)
        - MAJOR PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE)
        - MINOR PROGRAM IN ASTRONOMY AND ASTROPHYSICS (SCIENCE)
        - SPECIALIST PROGRAM IN CHEMISTRY (SCIENCE)
        - SPECIALIST PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)

        - SPECIALIST PROGRAM IN ENVIRONMENTAL GEOSCIENCE (SCIENCE)
        - SPECIALIST PROGRAM IN PHYSICAL AND MATHEMATICAL SCIENCES (SCIENCE)
        - SPECIALIST PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE)
    - 11 Course Changes
- The Department of Psychology
    - 13 Program Changes
        - SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE - Cognitive Stream (SCIENCE)
        - SPECIALIST PROGRAM IN PSYCHOLOGY (SCIENCE)
        - SPECIALIST (CO-OPERATIVE) PROGRAM IN PSYCHOLOGY (SCIENCE)
        - SPECIALIST PROGRAM IN NEUROSCIENCE - Systems/Behavioural Stream (SCIENCE)
        - SPECIALIST PROGRAM IN NEUROSCIENCE - Cognitive Stream (SCIENCE)
        - SPECIALIST PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)
        - MAJOR PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)
        - MAJOR PROGRAM IN PSYCHOLOGY (SCIENCE)
        - SPECIALIST PROGRAM IN NEUROSCIENCE - Cellular/Molecular Stream (SCIENCE)
        - MAJOR PROGRAM IN NEUROSCIENCE (SCIENCE)
        - SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE - Cellular/Molecular Stream (SCIENCE)
        - SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE - Systems/Behavioural Stream (SCIENCE)
        - SPECIALIST (CO-OPERATIVE) PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)
    - 13 Course Changes
    - 1 Retired Course
        - PSYC06H3: Psychophysiology Laboratory

FINANCIAL IMPLICATIONS:

There are no significant financial implications to the campus operating budget.

RECOMMENDATION:

This item is presented for information only

DOCUMENTATION PROVIDED:

1. 2023-24 Curriculum Cycle: Undergraduate Minor Curriculum Modifications for Information Report: Minor Modifications for Information, dated March 22, 2023

2023-24 Curriculum Cycle
Undergraduate Minor Curriculum Modifications for Information
Report: Minor Modification for Information
March 22, 2023

Anthropology (UTSC), Department of

1 Course Modifications

ANTC59H3: Anthropology of Language and Media

Prerequisites:

Previous:

[ANTB19H3 and ANTB20H3] or [MDSA01H3 and MDSB05H3]

New:

[ANTB19H3 and ANTB20H3] or [MDSA10H3 and MDSB32H3]

Rationale:
ACM has updated their course codes which impacts our courses.

Consultation:

Resources:

Budget Implications:

Proposal Status:
Under Review

Arts, Culture & Media (UTSC), Department of

3 Minor Program Mod Expedited Review

SCMIN2150: MINOR PROGRAM IN THEATRE AND PERFORMANCE (ARTS)

Completion Requirements:

Previous:

Program Requirements
Students must complete 4.0 credits, of which 1.0 credit must be at the C- or D-level:

1. Foundational Courses (1.0 credit)
THRA10H3/(VPDA10H3) Introduction to Theatre
THRA11H3/(VPDA11H3) Introduction to Performance

2. 3.0 additional credits in Theatre and Performance (THR) courses
1.5 credits must come from **one** of the four areas of focus listed below, and 1.5 credits must come from **one** of the other areas of focus:
- Theatre & Society
- Theatre in Communities
- Performance
- Production

For the specific courses that fall into each of these areas, see the Areas of Focus Table.

New:

Program Requirements
Students must complete 4.0 credits, of which 1.0 credit must be at the C- or D-level:

1. Foundational Courses (1.0 credit)
THRA10H3/(VPDA10H3) Introduction to Theatre
THRA11H3/(VPDA11H3) Introduction to Performance

2. 3.0 additional credits in Theatre and Performance (THR) courses
1.0 credits each from any of the four areas of focus listed below:
- Theatre & Society
- Theatre in Communities
- Performance
- Production
For the specific courses that fall into each of these areas, see the Areas of Focus Table.

Description of Proposed Changes:
Elective requirement clarified (From 1.5 credit each from two areas of focus to 1.0 credit from 3 areas of focus)

Rationale:
One of the areas of focus (Theatre in Communities) does not offer 1.5 credits. To avoid this confusion, we decided to reduce 1.0 credit per area of focus and students can pick three areas.

Impact:
Students' graduation will not be delayed

Consultations:
C&T: Oct 7. 2022

Resource Implications:
N.A

Proposal Status:
Under Review

SCMAJJSS: MAJOR PROGRAM IN MEDIA, JOURNALISM AND DIGITAL CULTURES - Journalism Studies Stream (ARTS)

Completion Requirements:

Previous:

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

Core (3.0 credits)

1. Introductory Courses (1.0 credit):
MDSA01H3 Introduction to Media Studies
MDSA02H3 History of Media

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

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

4. 1.0 credit from the following:
MDSC01H3 Theories in Media Studies
MDSC02H3 Media, Identities and Politics
MDSC61H3 Alternative Media

Media Studies Stream (5.0 credits)

5. 0.5 credit from the following:
MDSD01H3 Senior Seminar: Topics in Media and Arts
MDSD02H3 Senior Seminar: Topics in Media and Society
MDSD11H3/JOUD11H3 Senior Research Seminar in Media and Journalism Research

6. 4.5 additional credits in MDS courses

Journalism Studies Stream (5.0 credits)

5. 1.0 credit as follows:
JOUA01H3 Introduction to Journalism and News Literacy I
JOUA02H3 Introduction to Journalism II

6. 3.0 credits as follows:
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
ACMB02H3 Methods of Inquiry and Investigation for ACM Programs
JOUB01H3 Covering Immigration and Transnational Issues
JOUB02H3 Critical Journalism
JOUB24H3 Journalism in the Age of Digital Media
JOUB39H3 Fundamentals of Journalistic Writing

7. 0.5 credit from the following:
JOUC30H3 Critical Approaches to Style, Form and Narrative
JOUC31H3 Journalism, Information Sharing and Technological Change
JOUC62H3 Media, Journalism and Digital Labour
JOUC63H3 Media Ethics

8. JOUD11H3/MDSD11H3 Senior Research Seminar in Media and Journalism

New:

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

Core (3.0 credits)

1. Introductory Courses (1.0 credit):
MDSA01H3 Introduction to Media Studies
MDSA02H3 History of Media

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

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

4. 1.0 credit from the following:
MDSC01H3 Theories in Media Studies
MDSC02H3 Media, Identities and Politics
MDSC61H3 Alternative Media

Media Studies Stream (5.0 credits)

5. 0.5 credit from the following:
MDSD01H3 Senior Seminar: Topics in Media and Arts
MDSD02H3 Senior Seminar: Topics in Media and Society
MDSD11H3/JOUD11H3 Senior Research Seminar in Media and Journalism Research

6. 4.5 additional credits in MDS courses

Journalism Studies Stream (5.0 credits)

5. 1.0 credit as follows:
JOUA01H3 Introduction to Journalism and News Literacy I
JOUA02H3 Introduction to Journalism II

6. 2.5 credits as follows:
JOUB01H3 Covering Immigration and Transnational Issues
JOUB02H3 Critical Journalism
JOUB24H3 Journalism in the Age of Digital Media
JOUB39H3 Fundamentals of Journalistic Writing
0.5 credit from the following: MDSB05H3, MDSB25H3 (whatever was not used to meet the core requirement)

7. 1.0 additional credits at JOUC-level

8. 0.5 additional credit at JOUD-level

Description of Proposed Changes:
Removed ACMB01H3 and ACMB02H3 as program requirements Rephrased the D-level requirement Added 0.5 credit at C-level

Rationale:
Removed ACMB01H3 and ACMB02H3 as program requirements - ACMB01H3 is removed from all ACM courses, and elements of ACMB02H3 are covered within JOUA02H3
Rephrased D-level requirement so that students can pick what they like from the JOUD-level courses offered each year
Adding a 0.5 JOUC-level credit to help them meet degree requirements

Impact:
N.A

Consultations:
C&T: Oct 7, 2022

Resource Implications:
N.A

Proposal Status:
Under Review

SCSPEJOU: SPECIALIST (JOINT) PROGRAM IN JOURNALISM (ARTS)

Completion Requirements:

Previous:

Program Requirements
This program requires the completion of at least 13.0 credits, as indicated below:

1. First Year (2.5 credits):
Introductory Journalism Courses (1.0 credit)
JOUA01H3 Introduction to Journalism and News Literacy I
JOUA02H3 Introduction to Journalism II

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

Introductory Humanities Courses (1.0 credit)
ACMB01H3 Critical Reading, Thinking and Writing for ACM Programs
ACMB02H3 Methods of Inquiry and Investigation for ACM Programs

Note: Courses for Year 1 of the program are taught on the UTSC Campus.

2. Second Year (2.0 credits):

Journalism Core Courses
JOUB01H3 Covering Immigration and Transnational Issues
JOUB02H3 Critical Journalism
JOUB24H3 Journalism in the Age of Digital Media
JOUB39H3 Fundamentals of Journalistic Writing

Note: Courses for Year 2 of the program are taught on the UTSC Campus.

3. Third Year (6.5 credits):

Journalism Application Courses

(a) Centennial College Group 1 (2.5 credits)
*JOUA06H3 Contemporary Issues in Law and Ethics
*JOUB11H3 News Reporting
*JOUB14H3 Mobile Journalism
*JOUB18H3 Visual Storytelling: Photography and Videography
*JOUB19H3 Data Management and Presentation
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 1 courses after successfully completing at least 10.0 credits at the University of Toronto Scarborough (or obtaining permission of the Program Director), including JOUA01H3, JOUA02H3, MDSA01H3, JOUB01H3, JOUB02H3, JOUB24H3, JOUB39H3, ACMB01H3, and ACMB02H3.

(b) Centennial College Group 2 (2.5 credits)
*JOUB05H3 Advanced Video and Audio Production
*JOUB20H3 Interactive: Data and Analytics
*JOUC18H3 Storyworks
*JOUC19H3 Social Media and Mobile Storytelling
*JOUC20H3 Emerging Tools and Technology
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 2 courses after successfully completing the courses from Centennial College Group 1 above.

Advanced Journalism Application Courses

(c) Centennial College Group 3, Summer Semester (1.5 credits)
*JOUB03H3 Business of Journalism
*JOUC13H3 Entrepreneurial Reporting
*JOUC25H3 Field Placement
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 3 courses after successfully completing the courses from Centennial College Group 2 above.

Note: Courses for Year 3 of the program are taught at the Centennial College Story Arts Centre in East York.Students are advised that, when they are taking courses at Centennial College, they should not also enrol in courses at UTSC.

4. Fourth Year (2.0 credits):

Senior Journalism Studies Courses

1.5 credits at the C- or D-level in MDS or JOU courses, of which at least 0.5 credit must be at the D-level.
JOUD10H3 Senior Seminar in Journalism

Note: courses for Year 4 of the program are taught on the UTSC campus

New:

Program Requirements
This program requires the completion of at least 13.0 credits, as indicated below:

1. First Year (1.5 credits):
Introductory Journalism Courses (1.0 credit)
JOUA01H3 Introduction to Journalism and News Literacy I
JOUA02H3 Introduction to Journalism II

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

Note: Courses for Year 1 of the program are taught on the UTSC Campus.

2. Second Year (2.0 credits):

Journalism Core Courses
JOUB01H3 Covering Immigration and Transnational Issues
JOUB02H3 Critical Journalism
JOUB24H3 Journalism in the Age of Digital Media
JOUB39H3 Fundamentals of Journalistic Writing
0.5 credits from the following: MDSB05H3 or MDSB25H3

Note: Courses for Year 2 of the program are taught on the UTSC Campus.

3. Third Year (6.5 credits):

Journalism Application Courses

(a) Centennial College Group 1 (2.5 credits)
*JOUA06H3 Contemporary Issues in Law and Ethics
*JOUB11H3 News Reporting
*JOUB14H3 Mobile Journalism
*JOUB18H3 Visual Storytelling: Photography and Videography
*JOUB19H3 Data Management and Presentation
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 1 courses after successfully completing at least 10.0 credits at the University of Toronto Scarborough (or obtaining permission of the Program Director), including JOUA01H3, JOUA02H3, MDSA01H3, JOUB01H3, JOUB02H3, JOUB24H3, JOUB39H3, ACMB01H3, and ACMB02H3.

(b) Centennial College Group 2 (2.5 credits)
*JOUB05H3 Advanced Video and Audio Production
*JOUB20H3 Interactive: Data and Analytics
*JOUC18H3 Storyworks
*JOUC19H3 Social Media and Mobile Storytelling
*JOUC20H3 Emerging Tools and Technology
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 2 courses after successfully completing the courses from Centennial College Group 1 above.

Advanced Journalism Application Courses

(c) Centennial College Group 3, Summer Semester (1.5 credits)
*JOUB03H3 Business of Journalism
*JOUC13H3 Entrepreneurial Reporting
*JOUC25H3 Field Placement
*A minimum grade of 60% is required in these courses to pass and maintain standing in the program.

Note: students will be eligible to enrol in Centennial College Group 3 courses after successfully completing the courses from Centennial College Group 2 above.

Note: Courses for Year 3 of the program are taught at the Centennial College Story Arts Centre in East York.Students are advised that, when they are taking courses at Centennial College, they should not also enrol in courses at UTSC.

4. Fourth Year (2.5 credits):

Senior Journalism Studies Courses

2.0 credits at the C- or D-level in MDS or JOU courses, of which at least 0.5 credit must be at the D-level.
JOUD10H3 Senior Seminar in Journalism

Note: courses for Year 4 of the program are taught on the UTSC campus

Description of Proposed Changes:
Removed ACMB01H3 and ACMB02H3 as program requirements. Balanced removal of 1.0 credits with adding 0.5 at C-level and 0.5 at B-level

Rationale:
ACMB01H3 is a course ACM intends to retire and has been removed from all ACM programs last year.
Elements of ACMB02H3 are taught in JOUA02H3 already, making it redundant
Adding 0.5 credits at C-levels, as this helps students with completing degree requirements.

Impact:
no impact

Consultations:
C&T Committee: Oct 7, 2022
Centennial College consultation: Feb 10, 2023

Resource Implications:
N.A

Proposal Status:
Under Review

9 Course Modifications - No Committee

JOUC31H3: Journalism, Information Sharing and Technological Change

Exclusions:

Previous:
MDSB25H3

New:

Rationale:
The department proposes to update the exclusions listed for this course; the listed exclusions are incorrect, as the course content is not similar.

Consultation:
Journalism Program Director, Journalism Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Budget Implications:

Proposal Status:
Under Review

JOUD10H3: Senior Seminar in Journalism

Prerequisites:

Previous:
JOUC13H3 and JOUC16Y3 and JOUC17H3

New:

JOUB03H3 and JOUC13H3 and JOUC25H3

Rationale:
The department proposes to update the course prerequisites; the current prerequisites are based on the older curriculum and must be updated to bring this course in line with current practice.

Consultation:

Resources:

Proposal Status:
Under Review

MUZB02H3: Music Teaching, Facilitation, and Learning

Title:

Previous: Music Facilitation and Learning

New: Music Teaching, Facilitation, and Learning

Rationale:
The department proposes to update the course title to more accurately reflect the course content.

Consultation:
Music Program Director, Music faculty, ACM Curriculum Committee, ACM Chair

Resources:

Proposal Status:
Under Review

VPSC56H3: Studio and Exhibition Practice

Title:

Previous: Studio Practice

New: Studio and Exhibition Practice

Rationale:
The department proposes to modify the course title to better align with course content.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Proposal Status:
Under Review

VPSC73H3: Interdisciplinary Drawing

Title:

Previous: Interdisciplinary Drawing Concepts

New: Interdisciplinary Drawing

Rationale:
The department proposes to update the course title in order to bring the title in line with departmental naming conventions for C-level courses and to make the course title more accessible to students.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Proposal Status:
Under Review

VPSC77H3: Interdisciplinary Photography

Title:

Previous: Interdisciplinary Photo Concepts

New: Interdisciplinary Photography

Rationale:
The department proposes to update the course title in order to bring the title in line with departmental naming conventions for C-level courses and to make the course title more accessible to students.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Proposal Status:
Under Review

VPSD55H3: Advanced Special Topics in Studio Art

Title:

Previous: Advanced Special Topics in Studio

New: Advanced Special Topics in Studio Art

Enrolment Limits:

Previous: 15

New:

Rationale:
The department proposes to update the course title, in order to conform with the program name, and to lift the enrollment limit. The previous enrollment limit was not needed; the course had been capped at 15, but VPS courses are capped at 20 students.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Proposal Status:
Under Review

Previous:
1.5 credits at the C-level in VPS courses.

New:

VPSC56H3, and 1.0 credits at VPSC-level

Methods Assessment:

Previous:

New:
Artwork production
Gallery exhibition
Research and project-related written work.
Artwork documentation

Rationale:
The department proposes to: modify the course title to confirm with the program name; modify the course description to make course content

clearer for students and to differentiate from other D-level courses offered in the Studio Art program; modify the pre-requisites to include an existing course that provides preparation for the exhibition component of the course.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:
Will be taught by full-time faculty

Proposal Status:
Under Review

VPSD56H3: Advanced Exhibition Practice

Title:

Previous: Advanced Studio Practice

New: Advanced Exhibition Practice

Description:

Previous:

An advanced course for students ready to work independently on their own projects. Students will be expected to work on their projects from conception to a final exhibition in the student-run gallery. Students may work in their choice of media.

New:

This advanced, open-media studio art course provides students with an opportunity to conceive, propose, research, develop, and complete a major artwork. This course will culminate in an end-of-term public exhibition in a professional gallery setting.

Enrolment Limits:

Previous:
15

New:

Prerequisites:

Previous:
1.5 credits at the C-level in VPS courses.

New:
VPSC56H3, and 1.0 credits at VPSC-level

Methods Assessment:

Previous:

New:
Artwork production
Gallery exhibition
Research and project-related written work.
Artwork documentation

Rationale:
The department proposes to: modify the course title to confirm with the program name; modify the course description to make course content clearer for students and to differentiate from other D-level courses offered in the Studio Art program; modify the pre-requisites to include an existing course that provides preparation for the exhibition component of the course.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:
Will be taught by full-time faculty
Budget Implications:

Proposal Status:
Under Review

VPSD63H3: Independent Study in Studio Art: Thesis

Title:

Previous: Independent Studies in Studio: Advanced Level

New: Independent Study in Studio Art: Thesis

Description:

Previous:

This option is available in rare and exceptional circumstances to students who have demonstrated a high level of academic maturity and competence. Qualified students will have the opportunity to investigate an area of contemporary art that is of common interest to both student and supervisor.

New:

For Specialist students only. Students enrolled in this advanced course will work with faculty advisors to develop a major artwork supported by research and project-related writing. This course will involve weekly meetings and an end-of-term group critique. Students enrolled in this course will be offered a dedicated communal studio space.

Prerequisites:

Previous:
At least 15.0 credits and completion of the Major in Studio Art and written permission of the instructor in the previous session.

New:

VPSC56H3, VPSC85H3, and 1.0 credits at the C-level in VPS

Rationale:
The department proposes to revise the name and description of this course. The name will be modified to make the course focus clearer to students, and the revised description offers a more accurate picture to students of the activities that take place in this course.

Consultation:

Resources:

Budget Implications:

Proposal Status:
Under Review

6 Retired Courses - No Committee

VPSC55H3: Drawing III

Rationale:
This course is being retired because it has been made redundant by VPSC73H3 Interdisciplinary Drawing

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Budget Implications:

Proposal Status:
Under Review

VPSC59H3: Theory and Practice: Three- Dimensional Work

Rationale:
This course is being replaced by a new suite of theme-based Theory and Practice courses. Making this suite of courses more thematic and interdisciplinary better aligns the course with current program learning outcomes that emphasize interdisciplinary curriculum and theory at the C-level in Studio Art.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Budget Implications:

Proposal Status:
Under Review

VPSC66H3: Theory and Practice: Two-Dimensional Work

Rationale:
This course is being replaced by a new suite of theme-based Theory and Practice courses. Making this suite of courses more thematic and interdisciplinary better aligns the course with current program learning outcomes that emphasize interdisciplinary curriculum and theory at the C-level in Studio Art.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Budget Implications:

Proposal Status:

Under Review

VPSC78H3: Sculpture and the Everyday

Rationale:
This course is being retired because it has been made redundant by proposed new courses Theory and Practice: Art and the Everyday, Theory and Practice: Art and Materials, and Theory and Practice: Art and Place.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Budget Implications:

Proposal Status:
Under Review

VPSD57H3: Advanced Seminar: Interdisciplinary Practice

Rationale:
This course is being retired because it has been made redundant by a restructuring of D-level courses in Studio art that focus on research, production, and exhibition-making.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Budget Implications:

Proposal Status:
Under Review

VPSD58H3: Advanced Seminar: Two-Dimensional Work

Rationale:
This course is being retired because it has been made redundant by a restructuring of D-level courses in Studio art that focus on research, production, and exhibition-making.

Consultation:
Studio Program Director, Studio Faculty, ACM Curriculum Committee, ACM Chair

Resources:

Budget Implications:

Proposal Status:
Under Review

Biological Sciences (UTSC), Department of

5 Minor Program Mod Expedited Reviews - No Committee

SCMAJ0215: MAJOR PROGRAM IN HUMAN BIOLOGY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements:
This program consists of 8.5 credits.

Required Courses and Suggested Course Sequence

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit in Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 Credit in Introductory Psychology Courses
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

4. 0.5 Credit in Mathematics or Statistics
Choose From:
MATA29H3 Calculus I for the Life Sciences
MATA30H3 Calculus I for Physical Sciences
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
5. 2.5 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

6. 0.5 Credit in a Biology Core Lab
Choose From:
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy

Third/Fourth Years
7. 1.5 Credits of C-Level Courses
Choose From:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC15H3 Genetics
BIOC16H3 Evolutionary Genetics and Genomics
BIOC17H3 Microbiology
BIOC19H3 Animal Developmental Biology
BIOC20H3 Principles of Virology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC32H3 Human Physiology I
BIOC34H3 Human Physiology II
BIOC35H3 Principles of Parasitology
BIOC39H3 Immunology
BIOC54H3 Animal Behaviour
BIOC58H3 Biological Consequences of Global Change
BIOC65H3 Environmental Toxicology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

8. 0.5 Credit of D-Level Biology Courses
Choose From:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD08H3 Theoretical Neuroscience
BIOD12H3 Protein Homeostasis
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD26H3 Fungal Biology and Pathogenesis
BIOD29H3 Pathobiology of Human Disease
BIOD33H3 Comparative Animal Physiology
BIOD35H3 Sports Science
BIOD43H3 Animal Movement and Exercise
BIOD59H3 Models in Ecology, Epidemiology and Conservation
BIOD65H3 Pathologies of the Nervous System
BIOD95H3 Supervised Study in Biology (topic must be human-related and approved by the program supervisor)

New:

Program Requirements:
This program consists of 8.5 credits.

Required Courses and Suggested Course Sequence

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit in Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 Credit in Introductory Psychology Courses
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

4. 0.5 Credit in Mathematics or Statistics
Choose From:
MATA29H3 Calculus I for the Life Sciences
MATA30H3 Calculus I for Physical Sciences
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
5. 2.5 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

6. 0.5 Credit in a Biology Core Lab
Choose From:
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy

Third/Fourth Years
7. 1.5 Credits of C-Level Courses
Choose From:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC15H3 Genetics
BIOC16H3 Evolutionary Genetics and Genomics
BIOC17H3 Microbiology
BIOC19H3 Animal Developmental Biology
BIOC20H3 Principles of Virology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC32H3 Human Physiology I
BIOC34H3 Human Physiology II
BIOC35H3 Principles of Parasitology
BIOC39H3 Immunology
BIOC54H3 Animal Behaviour
BIOC58H3 Biological Consequences of Global Change
BIOC65H3 Environmental Toxicology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

8. 0.5 Credit of D-Level Biology Courses
Choose From:
BIOD06H3 Advanced Topics in Neural Basis of Motor Control
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD08H3 Theoretical Neuroscience
BIOD12H3 Protein Homeostasis
BIOD15H3 Mechanisms of Gene Regulation in Health and Disease

BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD24H3 Human Stem Cell Biology and Regenerative Medicine
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD32H3 Human Respiratory Pathophysiology
BIOD33H3 Comparative Animal Physiology
BIOD35H3 Sports Science
BIOD43H3 Animal Movement and Exercise
BIOD59H3 Models in Ecology, Epidemiology and Conservation
BIOD65H3 Pathologies of the Nervous System
BIOD95H3 Supervised Study in Biology (topic must be human-related and approved by the program supervisor)

Description of Proposed Changes:

1. Add BIOD06H3 (Advanced Topics in Neural Basis of Motor Control), BIOD15H3 (Mechanisms of Gene Regulation in Health and Disease), BIOD24H3 (Human Stem Cell Biology and Regenerative Medicine), BIOD25H3 (Genomics), BIOD27H3 (Vertebrate Endocrinology) and BIOD32H3 (Human Respiratory Pathophysiology) as options in #8. 0.5 credit in D-level Biology courses.

Rationale:

These additional courses will further support the current learning outcomes of this program:
Add BIOD06H3: This addresses neural control in vertebrates and directly relates to understanding the neurological function of humans
Add BIOD15H3: This addition will specifically address the epigenetics mechanisms of gene regulation in health and disease using important problem based learning.
Add BIOD24H3: This course emphasizes the role of stem cells in regenerative medicine and is an important breakthrough for treating human diseases and will specifically touch on the important role of ethics in the use of stem cells.
Add BIOD25H3: This program emphasizes, in upper years, issues related to human health. Given that many human health relevant studies are conducted using genomic data and specifically computational analysis of genomic data, BIOD25H3 would be an excellent fit for students in this program.
Add BIOD27H3: This course addresses the important role of the endocrine systems in vertebrate biology and as such is a valuable area of study for students in this program. This course has been in the Specialist program for a number of years and we are now moving it into the major.
Add BIOD32H3: This course addresses the function of the respiratory system when under stress from attack from pathogens or other disease states. The emphasis is on the actual functioning of the lungs under stress and provides students with an excellent opportunity to understand the key role the lungs play in the survival from disease insult. This will significantly add to student opportunities in the Human Biology program with direct implications in medical careers.

Impact:

1. This change will provide students with greater flexibility and guidelines for their timetables and program completion.
2. Adding these courses will provide students with additional options at the D level which is critical given the large enrolment of this program. This is essential to ensure we can maintain our D level enrolments at around 35 students per.

Consultations:

DCC September 13, 2022

Resource Implications:

None

Proposal Status:

Under Review

SCMAJ0220: MAJOR PROGRAM IN MOLECULAR BIOLOGY, IMMUNOLOGY AND DISEASE (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
This program consists of 8.5 credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 0.5 Credit in Mathematics or Statistics
Choose from:
MATA29H3 Calculus I for the Life Sciences
MATA30H3 Calculus I for Physical Sciences

STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
4. 2.5 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

5. 0.5 Credit in a Biology Core Lab
Choose From:
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy

Third/Fourth Years
6. 1.5 Credit of Required C-level Courses
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC39H3 Immunology

7. 1.0 Credit of Additional C-level Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC14H3 Genes, Environment and Behaviour
BIOC15H3 Genetics
BIOC19H3 Animal Developmental Biology
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

8. 0.5 credit of D-level Biology Courses
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease

New:

Program Requirements
This program consists of 8.5 credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 0.5 Credit in Mathematics or Statistics
Choose from:
MATA29H3 Calculus I for the Life Sciences
MATA30H3 Calculus I for Physical Sciences
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
4. 2.5 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology

BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

5. 0.5 Credit in a Biology Core Lab
Choose From:
BIOB12H3 Cell and Molecular Biology Laboratory
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy

Third/Fourth Years
6. 1.5 Credit of Required C-level Courses
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC39H3 Immunology

7. 1.0 Credit of Additional C-level Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC14H3 Genes, Environment and Behaviour
BIOC15H3 Genetics
BIOC19H3 Animal Developmental Biology
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology

BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

8. 0.5 credit of D-level Biology Courses
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD15H3 Mechanisms of Gene Regulation in Health and Disease
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD23H3 Special Topics in Cell Biology
BIOD24H3 Human Stem Cell Biology and Regenerative Medicine
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease

Description of Proposed Changes:
1. BIOD15H3 (Mechanisms of Gene Regulation in Health and Disease) and BIOD24H3 (Human Stem Cell Biology and Regenerative Medicine) as options in #8. 0.5 credit in D-level Biology courses.

Rationale:
These additional courses will further support the current learning outcomes of this program:
Add BIOD15H3: This addition will specifically address the epigenetics mechanisms of gene regulation in health and disease using important

problem based learning.
Add BIOD24H3: This course emphasizes the role of stem cells in regenerative medicine and is an important breakthrough for treating human diseases and will specifically touch on the important role of ethics in the use of stem cells.

Impact:
1. This change will provide students with greater flexibility and guidelines for their timetables and program completion.
2. Adding these courses will provide students with additional options.

Consultations:
DCC September 13, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1203C: SPECIALIST (CO-OPERATIVE) PROGRAM IN MOLECULAR BIOLOGY AND BIOTECHNOLOGY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
The program requires students to complete a total of 14.5 credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry I: Reactions and Mechanisms

3. 1.0 Credit in Mathematics
Choose from:
[MATA29H3 Calculus I for the Life Sciences or MATA30H3 Calculus I for Physical Sciences]
and
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences]

4. 1.0 Credit in Physics
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
[PHYA21H3 Physics II for the Physical Sciences or PHYA22H3 Physics II for the Life Sciences]

5. 0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I (this course could also be taken in the second year)
PSYB07H3 Data Analysis in Psychology (this course could also be taken in the second year)

Second Year
6. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

7. 0.5 Credit of Biology Core Labs
BIOB12H3 Cell and Molecular Biology Laboratory

8. 1.0 Credit of Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Note: Computer Science might be taken in this year and will enhance Co-op placement options.

Third Year

9. 3.5 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC23H3 Practical Approaches to Biochemistry
BIOC39H3 Immunology (can be completed in third or fourth year)

10. 0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)

Third/Fourth Year
11. 0.5 Credit of Cognate Biology Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOC70H3 An Introduction to Bias in the Sciences
BIOD37H3 Biology of Plant Stress
BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
12. 0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Advanced Molecular Biology Laboratory

13. 0.5 Credit of D-level Research-Oriented "Cell & Molecular" Course Work
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD22H3 Molecular Biology of the Stress Response
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD30H3 Plant Research and Biotechnology: Addressing Global Problems
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Directed Research in Biology
Note: Any of these courses not used to satisfy this requirement can be used to fulfill the '0.5 credit of Cognate Biology Courses.'

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Molecular Biology and Biotechnology and have completed at least 10.0 credits, including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 and MATA35H3] or [MATA30H3 and MATA36H3], [PHYA10H3 or PHYA11H3], BIOB10H3, BIOB11H3, BIOB12H3, CHMB41H3 and CHMB42H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year

to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

New:

Program Requirements
The program requires students to complete a total of 14.5 credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry I: Reactions and Mechanisms

3. 1.0 Credit in Mathematics
Choose from:
[MATA29H3 Calculus I for the Life Sciences or MATA30H3 Calculus I for Physical Sciences]
and
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences]

4. 1.0 Credit in Physics
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
[PHYA21H3 Physics II for the Physical Sciences or PHYA22H3 Physics II for the Life Sciences]

5. 0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I (this course could also be taken in the second year)
PSYB07H3 Data Analysis in Psychology (this course could also be taken in the second year)

Second Year
6. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

7. 0.5 Credit of Biology Core Labs
BIOB12H3 Cell and Molecular Biology Laboratory

8. 1.0 Credit of Organic Chemistry Courses

CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Note: Computer Science might be taken in this year and will enhance Co-op placement options.

Third Year
9. 3.5 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC23H3 Practical Approaches to Biochemistry
BIOC39H3 Immunology (can be completed in third or fourth year)

10. 0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)

Third/Fourth Year
11. 0.5 Credit of Cognate Biology Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOC70H3 An Introduction to Bias in the Sciences
BIOD37H3 Biology of Plant Stress
BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
12. 0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Advanced Molecular Biology Laboratory

13. 0.5 Credit of D-level Research-Oriented "Cell & Molecular" Course Work
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD15H3 Mechanisms of Gene Regulation in Health and Disease
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD22H3 Molecular Biology of the Stress Response
BIOD23H3 Special Topics in Cell Biology
BIOD24H3 Human Stem Cell Biology and Regenerative Medicine
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD30H3 Plant Research and Biotechnology: Addressing Global Problems
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Directed Research in Biology
Note: Any of these courses not used to satisfy this requirement can be used to fulfill the '0.5 credit of Cognate Biology Courses.'

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Molecular Biology and Biotechnology and have completed at least 10.0 credits, including BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 and MATA35H3] or [MATA30H3 and MATA36H3], [PHYA10H3 or PHYA11H3], BIOB10H3, BIOB11H3, BIOB12H3, CHMB41H3 and CHMB42H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load.

They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

Description of Proposed Changes:
1. Adding BIOD15H3 (Mechanisms of Gene Regulation in Health and Disease) and BIOD24H3 (Human Stem Cell Biology and Regenerative Medicine) as options in #13. 0.5 credit in D-level Research-Oriented "Cell & Molecular" Course Work.

Rationale:
These additional courses will further support the current learning outcomes of this program:
Add BIOD15H3: This addition will specifically address the epigenetics mechanisms of gene regulation in health and disease using important problem based learning.
Add BIOD24H3: This course emphasizes the role of stem cells in regenerative medicine and is an important breakthrough for treating human diseases and will specifically touch on the important role of ethics in the use of stem cells.

Impact:
1. This change will provide students with greater flexibility and guidelines for their timetables and program completion.
2. Adding these courses will provide students with additional options at the D level. This is essential to ensure we can maintain our D level enrolments at around 35 students per.

Consultations:
DCC September 13, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCSPE0215: SPECIALIST PROGRAM IN HUMAN BIOLOGY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
This Program consists of 15.0 credits.

Required Courses and Suggested Course Sequence

First Year
1. 1.0 credit in Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 credit in Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 credit in Mathematics
[MATA29H3 Calculus I for the Life Sciences or MATA30H3 Calculus I for Physical Sciences]
and
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences]

4. 1.0 credit in Introductory Physics Courses
PHYA11H3 Physics I for the Life Sciences
PHYA22H3 Physics II for the Life Sciences

5. 0.5 credit in Statistics
Choose From:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
6. 3.0 credits in Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

7. 1.0 credit in Biology Core Labs
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy Laboratory

8. 1.0 credit in Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Third/Fourth Years
9. 2.5 credits in C-level Biology Core Courses
Choose From:
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC32H3 Human Physiology I
BIOC34H3 Human Physiology II
BIOC39H3 Immunology

10. 1.5 credits in Additional C-level Biology Courses
Choose From:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC14H3 Genes, Environment and Behaviour
BIOC16H3 Evolutionary Genetics and Genomics
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOC58H3 Biological Consequences of Global Change
BIOC65H3 Environmental Toxicology
BIOC70H3 An Introduction to Bias in the Sciences
BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

11. 1.0 credit in D-level Biology Courses
Choose From:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD12H3 Protein Homeostasis

BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD33H3 Comparative Animal Physiology
BIOD35H3 Sports Science
BIOD37H3 Biology of Plant Stress
BIOD43H3 Animal Movement and Exercise
BIOD59H3 Models in Ecology, Epidemiology and Conservation
BIOD65H3 Pathologies of the Nervous System

12. 0.5 credit in Psychology or Health Studies
Choose From:
HLTA02H3 Foundations in Health Studies I
HLTA03H3 Foundations in Health Studies II
HLTB15H3 Introduction to Health Research Methodology
HLTB16H3 Introduction to Public Health
(HLTB17H3) Conceptual Models of Health
HLTB20H3 Contemporary Human Evolution and Variation
(HLTB21H3) Infectious Diseases
HLTB22H3 Biological Determinants of Health
HLTB40H3 Health Policy and Health Systems
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

New:

Program Requirements
This Program consists of 15.0 credits.

Required Courses and Suggested Course Sequence

First Year
1. 1.0 credit in Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 credit in Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 credit in Mathematics
[MATA29H3 Calculus I for the Life Sciences or MATA30H3 Calculus I for Physical Sciences]
and
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences]

4. 1.0 credit in Introductory Physics Courses
PHYA11H3 Physics I for the Life Sciences
PHYA22H3 Physics II for the Life Sciences

5. 0.5 credit in Statistics
Choose From:
STAB22H3 Statistics I
PSYB07H3 Data Analysis in Psychology

Second Year
6. 3.0 credits in Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*

*__Note__: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

7. 1.0 credit in Biology Core Labs
BIOB32H3 Animal Physiology Laboratory
BIOB33H3 Human Development and Anatomy Laboratory

8. 1.0 credit in Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Third/Fourth Years
9. 2.5 credits in C-level Biology Core Courses
Choose From:
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC32H3 Human Physiology I
BIOC34H3 Human Physiology II
BIOC39H3 Immunology

10. 1.5 credits in Additional C-level Biology Courses
Choose From:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC12H3 Biochemistry I: Proteins and Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC14H3 Genes, Environment and Behaviour
BIOC16H3 Evolutionary Genetics and Genomics
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOC58H3 Biological Consequences of Global Change
BIOC65H3 Environmental Toxicology
BIOC70H3 An Introduction to Bias in the Sciences
BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*

*__Note__: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

11. 1.0 credit in D-level Biology Courses
Choose From:
BIOD06H3 Advanced Topics in Neural Basis of Motor Control
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD15H3 Mechanisms of Gene Regulation in Health and Disease
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD24H3 Human Stem Cell Biology and Regenerative Medicine
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIO32H3 Human Respiratory Pathophysiology
BIOD33H3 Comparative Animal Physiology
BIOD35H3 Sports Science
BIOD37H3 Biology of Plant Stress
BIOD43H3 Animal Movement and Exercise
BIOD59H3 Models in Ecology, Epidemiology and Conservation
BIOD65H3 Pathologies of the Nervous System

12. 0.5 credit in Psychology or Health Studies
Choose From:
HLTA02H3 Foundations in Health Studies I
HLTA03H3 Foundations in Health Studies II
HLTB15H3 Introduction to Health Research Methodology
HLTB16H3 Introduction to Public Health
(HLTB17H3) Conceptual Models of Health
HLTB20H3 Contemporary Human Evolution and Variation
(HLTB21H3) Infectious Diseases

HLTB22H3 Biological Determinants of Health
HLTB40H3 Health Policy and Health Systems
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

Description of Proposed Changes:
1. Add BIOD06H3 (Advanced Topics in Neural Basis of Motor Control), BIOD15H3 (Mechanisms of Gene Regulation in Health and Disease), BIOD24H3 (Human Stem Cell Biology and Regenerative Medicine), and BIOD32H3 (Human Respiratory Pathophysiology) as options in #11. 1.0 credit in D-level Biology courses.

Rationale:
These additional courses will further support the current learning outcomes of this program:
Add BIOD06H3: This addresses neural control in vertebrates and directly relates to understanding the neurological function of humans
Add BIOD15H3: This addition will specifically address the epigenetics mechanisms of gene regulation in health and disease using important problem based learning.
Add BIOD24H3: This course emphasizes the role of stem cells in regenerative medicine and is an important breakthrough for treating human diseases and will specifically touch on the important role of ethics in the use of stem cells.
Add BIOD32H3: This course addresses the function of the respiratory system when under stress from attack from pathogens or other disease states. The emphasis is on the actual functioning of the lungs under stress and provides students with an excellent opportunity to understand the key role the lungs play in the survival from disease insult. This will significantly add to student opportunities in the Human Biology program with direct implications in medical careers.

Impact:
1. This change will provide students with greater flexibility and guidelines for their timetables and program completion.
2. Adding these courses will provide students with additional options at the D level which is critical given the large enrolment of this program. This is essential to ensure we can maintain our D level enrolments at around 35 students per course.

Consultations:
DCC September 13, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1203: SPECIALIST PROGRAM IN MOLECULAR BIOLOGY AND BIOTECHNOLOGY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
This program consists of 14.5 required credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 Credit in Mathematics
Choose from:
[MATA29H3 Calculus I for the Life Sciences or MATA30H3 Calculus I for Physical Sciences]
and
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences]

4. 1.0 Credit in Physics
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
[PHYA21H3 Physics II for the Physical Sciences or PHYA22H3 Physics II for the Life Sciences]
and
0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I (this course could also be taken in the second year)
PSYB07H3 Data Analysis in Psychology (this course could also be taken in the second year)

Second Year
5. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology

BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

6. 0.5 Credit of Biology Core Labs
BIOB12H3 Cell and Molecular Biology Laboratory

7. 1.0 Credit of Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Third Year
8. 3.5 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC23H3 Practical Approaches to Biochemistry
BIOC39H3 Immunology (can be completed in third or fourth year)

9. 0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)
(computer science could also be taken in an earlier year)

Third/Fourth Year
10. 0.5 Credit of Cognate Biology Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology
BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOC70H3 An Introduction to Bias in the Sciences
BIOD37H3 Biology of Plant Stress
BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
11. 0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Advanced Molecular Biology Laboratory

12. 0.5 credit of D-level Research-oriented "Cell & Molecular" Course Work
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD22H3 Molecular Biology of the Stress Response
BIOD23H3 Special Topics in Cell Biology
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD30H3 Plant Research and Biotechnology: Addressing Global Problems
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Directed Research in Biology
Note: Any of these courses not used to satisfy this requirement may be used to fulfill the '0.5 Credit of Cognate Biology Courses'.

New:

Program Requirements
This program consists of 14.5 required credits.

First Year
1. 1.0 Credit of Introductory Biology Courses
BIOA01H3 Life on Earth: Unifying Principles
BIOA02H3 Life on Earth: Form, Function and Interactions

2. 1.0 Credit of Introductory Chemistry Courses
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms

3. 1.0 Credit in Mathematics
Choose from:
[MATA29H3 Calculus I for the Life Sciences or MATA30H3 Calculus I for Physical Sciences]
and
[MATA35H3 Calculus II for Biological Sciences or MATA36H3 Calculus II for Physical Sciences]

4. 1.0 Credit in Physics
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
[PHYA21H3 Physics II for the Physical Sciences or PHYA22H3 Physics II for the Life Sciences]
and
0.5 Credit in Statistics
Choose from:
STAB22H3 Statistics I (this course could also be taken in the second year)
PSYB07H3 Data Analysis in Psychology (this course could also be taken in the second year)

Second Year
5. 3.0 Credits of Biology Core Courses
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB34H3 Animal Physiology
BIOB38H3 Plants and Society
BIOB50H3 Ecology
BIOB51H3 Evolutionary Biology
BIOB90H3 Integrative Research Poster Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOB90H3 is a graduation requirement for students in this program. Concurrent enrolment in at least one of the BIO B-level courses listed above is required for enrolment in BIOB90H3. Please see BIOB90H3 in the Calendar for important information.

6. 0.5 Credit of Biology Core Labs
BIOB12H3 Cell and Molecular Biology Laboratory

7. 1.0 Credit of Organic Chemistry Courses
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II

Third Year
8. 3.5 Credits of Biology C-level Courses
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics and Metabolism
BIOC15H3 Genetics
BIOC17H3 Microbiology
BIOC20H3 Principles of Virology
BIOC23H3 Practical Approaches to Biochemistry
BIOC39H3 Immunology (can be completed in third or fourth year)

9. 0.5 Credit in Computer Science
Choose from:
CSCA08H3 Introduction to Computer Science I (most appropriate course for computer science students)
CSCA20H3 Introduction to Programming (most appropriate course for non-computer science students)
(computer science could also be taken in an earlier year)

Third/Fourth Year
10. 0.5 Credit of Cognate Biology Courses
Choose from:
BIOC10H3 Cell Biology: Proteins from Life to Death
BIOC14H3 Genes, Environment and Behaviour
BIOC19H3 Animal Developmental Biology

BIOC21H3 Vertebrate Histology: Cells and Tissues
BIOC31H3 Plant Development and Biotechnology
BIOC35H3 Principles of Parasitology
BIOC40H3 Plant Physiology
BIOC70H3 An Introduction to Bias in the Sciences
BIOD37H3 Biology of Plant Stress
BIOC90H3 Integrative Multimedia Documentary Project (CR/NCR 0.0 credit)*
***Note**: Completion of BIOC90H3 is a graduation requirement for students in this program. Concurrent enrolment in one of the participating BIO C-level courses is required for enrolment in BIOC90H3. Please see BIOC90H3 in the Calendar for important information.

Fourth Year
11. 0.5 Credit in Advanced Molecular Techniques
BIOD21H3 Advanced Molecular Biology Laboratory

12. 0.5 credit of D-level Research-oriented "Cell & Molecular" Course Work
Choose from:
BIOD12H3 Protein Homeostasis
BIOD13H3 Herbology: The Science Behind Medicinal Plants
BIOD15H3 Mechanisms of Gene Regulation in Health and Disease
BIOD17H3 Seminars in Cellular Microbiology
BIOD19H3 Epigenetics in Health and Disease
BIOD20H3 Special Topics in Virology
BIOD22H3 Molecular Biology of the Stress Response
BIOD23H3 Special Topics in Cell Biology
BIOD24H3 Human Stem Cell Biology and Regenerative Medicine
BIOD25H3 Genomics
BIOD26H3 Fungal Biology and Pathogenesis
BIOD27H3 Vertebrate Endocrinology
BIOD29H3 Pathobiology of Human Disease
BIOD30H3 Plant Research and Biotechnology: Addressing Global Problems
BIOD95H3 Supervised Study in Biology
BIOD98Y3 Directed Research in Biology
Note: Any of these courses not used to satisfy this requirement may be used to fulfill the '0.5 Credit of Cognate Biology Courses'.

Description of Proposed Changes:
1. BIOD15H3 (Mechanisms of Gene Regulation in Health and Disease) and BIOD24H3 (Human Stem Cell Biology and Regenerative Medicine) as options in #12. 0.5 credit in D-level Research-oriented "Cell & Molecular" Course Work.

Rationale:
These additional courses will further support the current learning outcomes of this program:
Add BIOD15H3: This addition will specifically address the epigenetics mechanisms of gene regulation in health and disease using important problem based learning.
Add BIOD24H3: This course emphasizes the role of stem cells in regenerative medicine and is an important breakthrough for treating human diseases and will specifically touch on the important role of ethics in the use of stem cells.

Impact:
1. This change will provide students with greater flexibility and guidelines for their timetables and program completion.
2. Adding these courses will provide students with additional options.

Consultations:
DCC September 13, 2022

Resource Implications:
None

Proposal Status:
Under Review

2 Course Modifications - No Committee

BIOB33H3: Human Development and Anatomy

Delivery Method:

Previous: In Class

New: In Class

Rationale:
The department proposes to change an in-person lab component to an online module.

Traditionally BIOB33H3 was an in person lecture based course with a wet laboratory for students to study human anatomy. Unfortunately the only model dissection that could be done was the fetal pig. This led to an issue around the ability of the students to fully comprehend the anatomy of the human body. In the last few offerings, when we had to pivot online, we discovered there were many valuable online learning modules that allowed students to explore human anatomy in much more detail than what we could carry out in our fetal pig dissection

laboratories.

While traditional anatomy courses were taught in teaching labs and involved dissection of a model organisms, the development of virtual platforms for anatomy study, including software that provide experiences that allow the study of 3D anatomy (e.g. BodyViz) has fundamentally changed the way we can teach anatomy. These online modules better support the learning outcomes around understanding human anatomy structure and function and provide a stronger foundation for students pursuing professional schools such as medical school and dentistry. The pandemic has allowed us to envision the student learning experience in a much more holistic way. We feel these online learning modules are the best way to approach student success in learning anatomy.

After five consecutive offerings in the Summer and Fall terms 2020 to 2022 it has become clear that while the online learning experience was a positive one in the virtual learning modules, it was not as successful for the lecture and testing assessments. Therefore, going forward, we will be running an in person two hour lecture as occurred traditionally prior to the pandemic paired with online learning modules and in person examinations as well as other scaffolded assignments to support the learning outcomes of the course.

Consultation:
DCC Approval: July 5, 2022

Resources:
None
Budget Implications:

Overlap with Existing Courses:
None

Proposal Status:
Under Review

BIOC21H3: Vertebrate Histology: Cells and Tissues

Description:

Previous:

A study of the structure of cells and the various tissue types which make up the vertebrate body; epithelial, connective, muscle, nervous, blood, and lymphatic. Emphasis is placed on how form is influenced by function of the cells and tissues.

New:

A study of the structure of cells and the various tissue types which make up the vertebrate body; epithelial, connective, muscle, nervous, blood, and lymphatic. Emphasis is placed on how form is influenced by function of the cells and tissues.

Delivery Method:

Previous: In Class

New: In Class

Rationale:
The department proposes to change an in-person lab component to an online module.

BIOC21H3 [Vertebrate Histology: Cells and Tissues] involves explorations of the structure and function relationships of tissues, organs and organ systems of the human body with emphasis on the histology of the cells that make up tissue. This course has not been taught for several years due to a faculty retirement.
It has become clear there was a gap in our curriculum that we were not able to address due to not offering this course. Due to the importance of this course for our curriculum and for students who are aspiring towards careers in healthcare professions we are committed to offering this course in the format of an in-person lecture with in person testing, scaffolded assignments, and online learning modules. The online modules will provide a more robust learning experience than was traditionally available using prepared slides with the online tools available.

In the past, this course comprised of a two hour lecture and a three hour laboratory where students reviewed slides under the microscope. We offered this course in 2021 after learning of new online tools that mimic microscope use in traditional laboratory setting. The online histological atlases offered students a better experience than trying to look at prepared slides through the microscope. We had originally planned to offer the course completely online, based on the availability of these virtual learning modules, however, on our experience during the pandemic with mounting this course in Winter 2022 and the experience of the sessional instructor led us to the conclusion that while the online learning modules were valuable, the virtual environment of the lectures was not as conducive to student engagement and online testing carried out was problematic. Therefore, we have determined the most effective design of this course is to maintain the two hour in person lecture and replace the three-hour in person labs with online learning modules (which will include support from teaching assistants).

Consultation:
DCC Approval: July 5, 2022

Resources:
None
Budget Implications:

Overlap with Existing Courses:
None

Proposal Status:
Under Review

Biological Sciences (UTSC), Department of

2 Course Revision - abbr review

BIOD34H3: Conservation Physiology

Prerequisites:

Previous:
BIOB34H3 and [BIOC58H3 or BIOC60H3 or BIOC63H3]

New:
BIOB34H3 and [Completion of at least 0.5 credit at the C level in Biological Sciences]

Rationale:
In the original design of the course prerequisites in both conservation and physiology were listed. Based on multiple offerings of the course the instructor has determined the C level prerequisites listed are not specifically needed for success in the course. The specific knowledge needed is covered in BIOB34H3 - Animal Physiology, however, we feel students need to have completed at least 0.5 credits at the C level to ensure they are prepared for the rigors of the 4th year course. This change does not impact the learning outcomes and provides more flexibility to our students in the biodiversity and conservation programs.

Consultation:
DCC September 13, 2022

Resources:
No new resources

Proposal Status:
Under Review

BIOC51H3: Biodiversity Field Course

Title:

Previous: Tropical Biodiversity Field Course

New: Biodiversity Field Course

Description:

Previous:

A course with preparatory lectures on the UTSC campus and 1 week at a field station in Costa Rica where ecological, evolutionary, and practical aspects of tropical biodiversity will be explored. Field work will involve outdoor activities in challenging conditions.

New:

A course with preparatory lectures on the UTSC campus and a field experience in natural settings where ecological, evolutionary, and practical aspects of biodiversity will be explored. Field work will involve outdoor activities in challenging conditions.

Enrolment Limits:

Previous: 15

New: 15

Rationale:
Before the pandemic, this course was taught in Costa Rica. However, due to the difficulties of international travel during the pandemic, the course was taught in Ontario in summer 2022. The title and description changes are requested to better reflect the potential field locations components of this course. This also allows flexibility for the course to be taught in the Winter or Summer terms.

Consultation:
DCC September 13, 2022

Resources:

Proposal Status:
Under Review

Language Studies (UTSC), Department of

3 Minor Program Mod Expedited Review

SCMIN0180: MINOR PROGRAM IN ENGLISH AND CHINESE TRANSLATION (ARTS)

Previous:

P**rogram Requirements**
Students are required to complete a total of 4.0 credits.

1. 2.0 credits as follows:
[CTLA01H3 Foundations in Effective Academic Communication or LINA01H3 Introduction to Linguistics]
[LINB06H3 Syntax or LINB18H3 English Grammar]
LINB60H3 Comparative Study of English and Chinese
[ECTB58H3 Foundations of Translation *or* ECTB61H3 English and Chinese Translation: Theory and Practice]

2. 1.0 credit from the following:
ECTB60H3 Agri-Food, Cultures, and Translation
ECTC61H3 Translation Studies in Literature
ECTC62H3 Translation in Media
ECTC63H3 Translation and the Environment
ECTD68H3 Translation for Business
ECTD69H3 Translation for Government and Public Administration

3. 1.0 credit from the following:
LGGC64H3 Reading Chinese and English: China Inside Out
LGGC65H3 Reading Chinese and English: Global Perspectives
LGGD66H3/(LGGC67H3) Literary Chinese and English Translations
LGGD67H3/(LGGC66H3) Classical Chinese and English Translations

New:

P**rogram Requirements**
Students are required to complete a total of 4.0 credits, of which 1.0 must be at the C-level or higher.

1. 2.0 credits as follows:
[CTLA01H3 Foundations in Effective Academic Communication or LINA01H3 Introduction to Linguistics]
[LINB06H3 Syntax or LINB18H3 English Grammar]
LINB60H3 Comparative Study of English and Chinese
[ECTB58H3 Foundations of Translation *or* ECTB61H3 English and Chinese Translation: Theory and Practice]

2. Additional 2.0 credits in English and Chinese Translation (ECT) courses

Note: LGG*** courses cannot be used to satisfy program requirements

Description of Proposed Changes:
The English and Chinese Translation (ECT) unit is introducing several new ECT courses for Fall 2023. As such, we are updating our ECT minor program requirement by removing requirement three (taking LGG*** courses). We have also synthesized requirement 2 by removing a list of all of our courses. Instead it simply mentions that an additional 2.0 credits are needed in ECT courses. Lastly, we have added a requirement that 1.0 credit of the 4.0 credits needed, should be at the C-level or higher. We have made this more clear since requirement 3, which is now removed was all C/D level courses anyway.

Rationale:
The changes to the ECT minor program have been made due to the new ECT courses that we are proposing for Fall 2023. These changes help to address the wider variety of courses now available for ECT students to take. It also helps synthesize our program requirements so that we don't have to continue to make changes every time a new course is introduced. We've also added a note that LGG*** courses cannot be used to satisfy the ECT minor program requirements, since we have a wider variety of ECT courses that students will be able to take to complete their program.
Students who started the program prior to Fall 2023 will still be able to use the LGG courses listed in the older requirements, or have the option to follow the new requirements by taking more ECT courses.

Impact:
None.

Consultations:
Consulted within the ECT unit.
Reviewed and approved by DCC.

Resource Implications:
None

Proposal Status:
Under Review

SCSPE0506: SPECIALIST PROGRAM IN LINGUISTICS (ARTS)

Previous:

Program Requirements
Students must complete 12.0 credits, including 4.0 credits at the C- and D-level of which 1.0 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
LINB10H3 Morphology
LINC02H3 Phonology II
LINC11H3 Syntax II
LINC12H3 Semantics: The Study of Meaning

2. 4.5 credits from the following, including at least 1.5 credits from Group A and at least 1.5 credits from Group B:
Group A
LINB18H3 English Grammar
LINB20H3 Sociolinguistics
LINB60H3 Comparative Study of English and Chinese
LINB62H3 Structure of American Sign Language
LINC13H3 Language Diversity and Universals
LINC28H3 Language and Gender
LINC47H3 Pidgin and Creole Languages
LINC61H3 Structure of a Language
LIND09H3 Phonetic Analysis
LIND29H3 Linguistic Research Methodologies

Group B
LINB19H3 Computers in Linguistics
LINB29H3 Quantitative Methods in Linguistics
PLIC24H3 First Language Acquisition
PLIC25H3 Second Language Acquisition
PLIC55H3 Psycholinguistics
PLIC75H3 Language and the Brain
PLID34H3 The Psycholinguistics of Reading
PLID44H3 Acquisition of the Mental Lexicon
PLID50H3 Speech Perception
PLID74H3 Language and Aging

3. 1.0 credit of language study in one or more languages, which may include LINB60H3 or LINB62H3 or LINC61H3; ECT, FRE or LGG courses or language courses at another campus.

4. A further 2.0 credits in any LIN, PLI, JAL or JLP courses.

New:

Program Requirements
Students must complete 12.0 credits, including 4.0 credits at the C- and D-level of which 1.0 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
LINB10H3 Morphology
LINC02H3 Phonology II
LINC11H3 Syntax II
LINC12H3 Semantics: The Study of Meaning

2. 4.5 credits from the following, including at least 1.5 credits from Group A and at least 1.5 credits from Group B:
Group A
LINB18H3 English Grammar
LINB20H3 Sociolinguistics
LINB60H3 Comparative Study of English and Chinese
LINB62H3 Structure of American Sign Language
LINC13H3 Language Diversity and Universals
LINC28H3 Language and Gender

LINC47H3 Pidgin and Creole Languages
LINC61H3 Structure of a Language
LIND09H3 Phonetic Analysis
LIND29H3 Linguistic Research Methodologies

Group B
LINB19H3 Computers in Linguistics
LINB29H3 Quantitative Methods in Linguistics
PLIC24H3 First Language Acquisition
PLIC25H3 Second Language Acquisition
PLIC55H3 Psycholinguistics
PLIC75H3 Language and the Brain
PLID34H3 The Psycholinguistics of Reading
PLID44H3 Acquisition of the Mental Lexicon
PLID50H3 Speech Perception

PLID53H3 Sentence Processing
PLID74H3 Language and Aging

3. 1.0 credit of language study in one or more languages, which may include LINB60H3 or LINB62H3 or LINC61H3; ECT, FRE or LGG courses or language courses at another campus.

4. A further 2.0 credits in any LIN, PLI, JAL or JLP courses.

Description of Proposed Changes:
We are proposing a new course PLID53H3 Sentence Processing, and it will be included in one of the course groups of specific courses that students can choose from.

Rationale:
PLID53H3 is similar to the other courses in the group, and thus it should be included to give students more options of courses they can take to complete that requirement.

Impact:
None.

Consultations:
DCC approval: Sept 30, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCSPEPLIN: SPECIALIST PROGRAM IN PSYCHOLINGUISTICS (ARTS)

Previous:

Program Requirements
Students must complete 12.5 credits, including 4.0 credits at the C- and D-levels of which 1.0 credit must be at the D-level as follows:

1. 5.0 credits as follows:
LINA01H3 Introduction to Linguistics
LINA02H3 Applications of Linguistics
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology
LINB04H3 Phonology I
LINB06H3 Syntax I
LINB09H3 Phonetics: The Study of Speech Sounds
LINB29H3 Quantitative Methods in Linguistics
PLIC24H3 First Language Acquisition
PLIC55H3 Psycholinguistics

2. 1.5 credits from the following:
LINB10H3 Morphology
LINB20H3 Sociolinguistics
LINC02H3 Phonology II
LINC11H3 Syntax II
LINC12H3 Semantics: The Study of Meaning

3. 2.5 credits from the following:
LINB62H3 Structure of American Sign Language

LIND09H3 Phonetic Analysis
PLIC25H3 Second Language Acquisition
PLID34H3 Psycholinguistics of Reading
PLID44H3 Acquisition of the Mental Lexicon
PLID50H3 Speech Perception
PLID74H3 Language and Aging

4. 1.5 credits from the following:
BIOA11H3 Introduction to the Biology of Humans
BIOB35H3 Essentials of Human Physiology
LINB19H3 Computers in Linguistics
PLIC54H3 Speech Physiology and Speech Disorders in Children and Adults
PLIC75H3 Language and the Brain
PLID56H3 Special Topics in Language Disorders in Children
PSYB20H3 Introduction to Developmental Psychology
[PSYB51H3 Introduction to Perception *or* PSYB57H3 Introduction to Cognitive Psychology]
(PSYB65H3) Human Brain and Behaviour
PSYC21H3 Adulthood and Aging

5. 2.0 further credits in LIN and/or PLI

Note: students interested in pursuing Speech Language Pathology as an option for graduate studies should complete BIOA11H3 and BIOB35H3 (of component 4 of the program requirements) in order to satisfy a portion of the physiology requirement necessary for admissions.

New:

Program Requirements
Students must complete 12.5 credits, including 4.0 credits at the C- and D-levels of which 1.0 credit must be at the D-level as follows:

1. 5.0 credits as follows:
LINA01H3 Introduction to Linguistics
LINA02H3 Applications of Linguistics
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology
LINB04H3 Phonology I
LINB06H3 Syntax I
LINB09H3 Phonetics: The Study of Speech Sounds
LINB29H3 Quantitative Methods in Linguistics
PLIC24H3 First Language Acquisition
PLIC55H3 Psycholinguistics

2. 1.5 credits from the following:
LINB10H3 Morphology
LINB20H3 Sociolinguistics
LINC02H3 Phonology II
LINC11H3 Syntax II
LINC12H3 Semantics: The Study of Meaning

3. 2.5 credits from the following:
LINB62H3 Structure of American Sign Language
LIND09H3 Phonetic Analysis
PLIC25H3 Second Language Acquisition
PLID34H3 Psycholinguistics of Reading
PLID44H3 Acquisition of the Mental Lexicon
PLID50H3 Speech Perception

PLID53H3 Sentence Processing
PLID74H3 Language and Aging

4. 1.5 credits from the following:
BIOA11H3 Introduction to the Biology of Humans
BIOB35H3 Essentials of Human Physiology
LINB19H3 Computers in Linguistics
PLIC54H3 Speech Physiology and Speech Disorders in Children and Adults
PLIC75H3 Language and the Brain
PLID56H3 Special Topics in Language Disorders in Children
PSYB20H3 Introduction to Developmental Psychology
[PSYB51H3 Introduction to Perception *or* PSYB57H3 Introduction to Cognitive Psychology]
(PSYB65H3) Human Brain and Behaviour
PSYC21H3 Adulthood and Aging

5. 2.0 further credits in LIN and/or PLI

Note: students interested in pursuing Speech Language Pathology as an option for graduate studies should complete BIOA11H3 and BIOB35H3 (of component 4 of the program requirements) in order to satisfy a portion of the physiology requirement necessary for admissions.

Description of Proposed Changes:
We are proposing a new course PLID53H3 Sentence Processing for Fall 2023. And this course will be added to one of the course groups for the Psycholinguistic Specialist program.

Rationale:
PLID53H3 Sentence Processing is similar to the other courses in the course group, and therefore it should be included as part of the courses students can choose to take to complete that requirement.

Impact:
None

Consultations:
DCC approval: September 30, 2022

Resource Implications:
None

Proposal Status:
Under Review

1 Course Modification - No Committee

LGGC64H3: Reading Chinese and English: China Inside Out

Rationale:
The department proposes to correct a typo in the "notes" section of the course. Removed point #4 under "Notes". This is a typo.

Consultation:

Resources:

Budget Implications:

Proposal Status:
Under Review

Health and Society (UTSC), Department of

1 Program Modification

SCMIN2088: MINOR PROGRAM IN HEALTH HUMANITIES (ARTS)

Completion Requirements:

Previous:

Program Requirements
This program requires the completion of 4.0 credits, as follows:

1. 1.5 credit in Core Concepts in Health Humanities
HLTB50H3 Introduction to Health Humanities
HLTC55H3 Methods in Arts-Based Research
PHLB09H3 Biomedical Ethics

2. 0.5 credit in Critical Writing to be chosen from:
ENGA02H3 Critical Writing about Literature
ENGB02H3 Effective Writing in the Sciences

3. At least 0.5 credit at the C-level to be chosen from the following*:
ANTC24H3 Culture, Mental Illness, and Psychiatry
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
HLTC20H3 Global Disability Studies
HLTC50H3 The Human-Animal Interface
HLTC52H3 Special Topics in Health Humanities
MUZC02H3/(VPMC02H3) Music, Health and Wellness
WSTC12H3 Writing the Self: Global Women's Autobiographies
WSTC40H3 Gender and Disability

4. 0.5 credit at the D-level to be chosen from the following*:
ANTD01H3 The Body in Culture and Society
ANTD10H3 The Anthropology of 'Life' Itself
ENGD12H3 Topics in Life Writing
HLTD07H3 Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy'
HLTD50H3 Special Topics in Health Humanities
HLTD51H3 Aging and the Arts
HLTD52H3 Special Topics in Health: Health Histories
HLTD53H3 Special Topics in Health Humanities
HLTD54H3 Toronto's Stories of Health and Illness
HLTD56H3 Health Humanities Workshop: Documentary & Memoir
HLTD80H3 Critical Health Education

5. 1.0 credits to be chosen from the following*:
ANTC24H3 Culture, Mental Illness, and Psychiatry (if not used to complete Requirement 3)
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective (if not used to complete Requirement 3)
ANTD01H3 The Body in Culture and Society (if not used to complete Requirement 3)
ANTD10H3 The Anthropology of 'Life' Itself (if not used to complete Requirement 3)
CTLB03H3 Introduction to Service Learning
ENGA02H3 Critical Writing about Literature (if not used to complete Requirement 2)
ENGB02H3 Effective Writing in the Sciences (if not used to complete Requirement 2)
ENGB12H3 Life Writing
ENGB52H3 Literature and Science
ENGB74H3 The Body in Literature and Film
ENGC44H3 Self and Other in Literature and Film
ENGD12H3 Topics in Life Writing (if not used to complete Requirement 4)
HLTB30H3 Current Issues in Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB60H3 Introduction to Interdisciplinary Disability Studies
HLTC20H3 Global Disability Studies (if not used to complete Requirement 3)
HLTC50H3 The Human-Animal Interface (if not used to complete Requirement 3)
HLTC52H3 Special Topics in Health Humanities (if not used to complete Requirement 3)
HLTD01H3 Directed Readings in Health Studies**
HLTD07H3 Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy' (if not used to complete Requirement 4)
HLTD50H3 Special Topics in Health Humanities (if not used to complete Requirement 4)
HLTD51H3 Aging and the Arts (if not used to complete Requirement 4)
HLTD52H3 Special Topics in Health: Health Histories (if not used to complete Requirement 4)
HLTD53H3 Special Topics in Health Humanities (if not used to complete Requirement 4)
HLTD54H3 Toronto's Stories of Health and Illness (if not used to complete Requirement 4)
HLTD56H3 Health Humanities Workshop: Documentary & Memoir (if not used to complete Requirement 4)
HLTD71Y3 Directed Research in Health Studies **
HLTD80H3 Critical Health Education (if not used to complete Requirement 4)
MUZC02H3/(VPMC02H3) Music, Health and Wellness
WSTC12H3 Writing the Self: Global Women's Autobiographies (if not used to complete Requirement 3)
WSTC40H3 Gender and Disability (if not used to complete Requirement 3)

Notes:
1. The courses listed in requirements 3, 4, and 5 (designated with a *) engage methods, content, and/or issues relevant to arts and humanities-based approaches to health. They provide students with the opportunity to explore more specialized topics related to Health Humanities based on their academic interests and professional aspirations.
2. 0.5 credit can be earned by taking for-credit fine arts classes (e.g., music performance, visual arts, creative writing, etc).
3. Permission to count CLTB03H3 (**), HLTB30H3 (**), HLTD01H3, (**) or HLTD71Y3 (**) towards the Minor in Health Humanities must be received from the Program Supervisor. Permission will be granted only in cases where the student's work demonstrably engages Health Humanities-related content and/or research methods.

New:

Program Requirements
This program requires the completion of 4.0 credits, as follows:

1. 1.5 credit in Core Concepts in Health Humanities
HLTB50H3 Introduction to Health Humanities
HLTC55H3 Methods in Arts-Based Research
PHLB09H3 Biomedical Ethics

2. 0.5 credit in Critical Writing to be chosen from:
ENGA02H3 Critical Writing about Literature
ENGB02H3 Effective Writing in the Sciences

3. At least 0.5 credit at the C-level to be chosen from the following*:
ANTC24H3 Culture, Mental Illness, and Psychiatry
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective
HLTC20H3 Global Disability Studies
HLTC50H3 The Human-Animal Interface
HLTC52H3 Special Topics in Health Humanities
HLTC56H3 Drawing Illness

HLTC60H3 Disability History
MUZC02H3/(VPMC02H3) Music, Health and Wellness
WSTC12H3 Writing the Self: Global Women's Autobiographies
WSTC40H3 Gender and Disability

4. 0.5 credit at the D-level to be chosen from the following*:
ANTD01H3 The Body in Culture and Society
ANTD10H3 The Anthropology of 'Life' Itself
ENGD12H3 Topics in Life Writing
HLTD07H3 Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy'
HLTD50H3 Special Topics in Health Humanities
HLTD51H3 Aging and the Arts
HLTD52H3 Special Topics in Health: Health Histories
HLTD53H3 Special Topics in Health Humanities
HLTD54H3 Toronto’s Stories of Health and Illness
HLTD56H3 Health Humanities Workshop: Documentary & Memoir
HLTD80H3 Critical Health Education

5. 1.0 credits to be chosen from the following*:
ANTC24H3 Culture, Mental Illness, and Psychiatry (if not used to complete Requirement 3)
ANTC61H3 Medical Anthropology: Illness and Healing in Cultural Perspective (if not used to complete Requirement 3)
ANTD01H3 The Body in Culture and Society (if not used to complete Requirement 3)
ANTD10H3 The Anthropology of 'Life' Itself (if not used to complete Requirement 3)
CTLB03H3 Introduction to Service Learning
ENGA02H3 Critical Writing about Literature (if not used to complete Requirement 2)
ENGB02H3 Effective Writing in the Sciences (if not used to complete Requirement 2)
ENGB12H3 Life Writing
ENGB52H3 Literature and Science
ENGB74H3 The Body in Literature and Film
ENGC44H3 Self and Other in Literature and Film
ENGD12H3 Topics in Life Writing (if not used to complete Requirement 4)
HLTB30H3 Current Issues in Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB60H3 Introduction to Interdisciplinary Disability Studies
HLTC20H3 Global Disability Studies (if not used to complete Requirement 3)
HLTC50H3 The Human-Animal Interface (if not used to complete Requirement 3)
HLTC52H3 Special Topics in Health Humanities (if not used to complete Requirement 3)
HLTC56H3 Drawing Illness (if not used to complete Requirement 3)
HLTC60H3 Disability History (if not used to complete Requirement 3)
HLTD01H3 Directed Readings in Health Studies**
HLTD07H3 Advanced Rehabilitation Sciences: Disability Studies and Lived Experiences of 'Normalcy' (if not used to complete Requirement 4)
HLTD50H3 Special Topics in Health Humanities (if not used to complete Requirement 4)
HLTD51H3 Aging and the Arts (if not used to complete Requirement 4)
HLTD52H3 Special Topics in Health: Health Histories (if not used to complete Requirement 4)
HLTD53H3 Special Topics in Health Humanities (if not used to complete Requirement 4)
HLTD54H3 Toronto’s Stories of Health and Illness (if not used to complete Requirement 4)
HLTD56H3 Health Humanities Workshop: Documentary & Memoir (if not used to complete Requirement 4)
HLTD71Y3 Directed Research in Health Studies **
HLTD80H3 Critical Health Education (if not used to complete Requirement 4)
MUZC02H3/(VPMC02H3) Music, Health and Wellness
WSTC12H3 Writing the Self: Global Women's Autobiographies (if not used to complete Requirement 3)
WSTC40H3 Gender and Disability (if not used to complete Requirement 3)

Notes:
1. The courses listed in requirements 3, 4, and 5 (designated with a *) engage methods, content, and/or issues relevant to arts and humanities-based approaches to health. They provide students with the opportunity to explore more specialized topics related to Health Humanities based on their academic interests and professional aspirations.
2. 0.5 credit can be earned by taking for-credit fine arts classes (e.g., music performance, visual arts, creative writing, etc).
3. Permission to count CLTB03H3 (**), HLTB30H3 (**), HLTD01H3, (**) or HLTD71Y3 (**) towards the Minor in Health Humanities must be received from the Program Supervisor. Permission will be granted only in cases where the student’s work demonstrably engages Health Humanities-related content and/or research methods.

Description of Proposed Changes:
Adding two new courses to Req 3 and Req 5: HLTC56H3 Drawing Illness HLTC60H3 Disability History

Rationale:
We are adding two new proposed courses to bin 3 and 5

Impact:
This will have no negative impact on student or other academic units/divisions. The addition of the two new courses provides students with additional options for fulfilling program requirements.

Consultations:
DCC- October 11, 2022

Resource Implications:
None

Proposal Status:
Under Review

Management (UTSC), Department of

34 Course Modifications

MGAC01H3: Intermediate Financial Accounting I

Enrolment Limits: Previous: 40 New:

Prerequisites:

Previous: MGAB03H3 and MGAB02H3 and [MGTA35H3 or MGTA36H3]

Exclusions:

Previous:
MGT224H5, MGT322H5, RSM221H1, RSM320H1

Rationale:
1. The prerequisite has been changed to add MGTC38H3 to better prepare students and bracketed the retired courses to ensure consistency throughout the Calendar.
2. Enrolment limits are being removed as they are no longer are necessary

Consultation:
DCC Approval: October 12, 2022

Resources:
None.

MGEA02H3: Introduction to Microeconomics: A Mathematical Approach

Recommended Preparation:

Previous:
Completion of Grade 12 Calculus is strongly recommended. It is also recommended that MATA32H3 and MATA33H3 (or equivalents) be taken simultaneously with MGEA02H3 and MGEA06H3.

Rationale:
The recommended prep courses have been revised to provide students more flexibility

Consultation:
DCC Approval: May 27, 2022

Resources:
None.

MGEA06H3: Introduction to Macroeconomics: A Mathematical Approach

Recommended Preparation:

Previous:
Completion of Grade 12 Calculus is strongly recommended. It is also recommended that MATA32H3 and MATA33H3 (or equivalents) be taken simultaneously with MGEA02H3 and MGEA06H3.

New: Completion of Grade 12 Calculus is strongly recommended. It is also recommended that MATA34H3 (or equivalents) be taken simultaneously with MGEA02H3 and MGEA06H3.

Rationale:
The recommended prep courses have changed from MATA32H3 and MATA33H3 to MATA34H3 to provide students more flexibility by reducing the number of courses required for a BBA degree.

Consultation:
DCC Approval: May 27, 2022

Resources:
None.

MGEB02H3: Price Theory: A Mathematical Approach

Prerequisites:

Previous:

MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]. Students who have completed MGEA01H3 and MGEA05H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3] may be admitted with the permission of the Academic Director, Economics.

New: [MGEA02H3 and MGEA06H3 and MATA34H3] or [MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]]

Rationale:
1. The course description has removed incorrect double numbering
2. The prerequisite has changed to add MATA34H3 to the list of options to provide students with more enrolment flexibility.
3. A note has been added to inform students of alternative enrolment options.

Consultation:
DCC Approval: June 23, 2022

Resources:
None.

MGEB06H3: Macroeconomic Theory and Policy: A Mathematical Approach

Prerequisites:

Previous:
MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]. Students who have completed MGEA01H3 and MGEA05H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3] may be admitted with the permission of the Academic Director, Economics.

New: [MGEA02H3 and MGEA06H3 and MATA34H3] or [MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]].

Rationale:
1. The course description has removed incorrect double numbering
2. The prerequisite has changed to add MATA34H3 to the list of options to provide students with more enrolment flexibility.
3. A note has been added to inform students of alternative enrolment options.

Consultation:
DCC Approval: June 23, 2022.

Resources:
None

MGEB11H3: Quantitative Methods in Economics I

Prerequisites:

Previous:
MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]; Students who have completed MGEA01H3 and MGEA05H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3] may be admitted with the permission of the Academic Director, Economics.

New: [MGEA02H3 and MGEA06H3 and MATA34H3] or [MGEA02H3 and MGEA06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]].

Rationale:
1. The prerequisite has changed to add MATA34H3 to the list of options to provide students with more enrolment flexibility.
2. Course exclusions have added STAB53H3, STA107H5, STA237H1, STA247H1, STA246H5, STA256H5, STA257H1 because these courses have significant overlap with MGEB11H3
3. A note has been added to inform students of alternative enrolment options.

Consultation:
DCC Approval: May 27, 2022
CMS Consultation: August 25, 2022

Resources:
None

MGEB12H3: Quantitative Methods in Economics II

Prerequisites:

Previous:
[MGEB11H3 or [STAB52H3 and STAB57H3]] and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]

New: MGEB11H3 or STAB57H3

Rationale:
1. The prerequisites have changed to provide students with more enrolment flexibility and overall flexibility to complete their BBA.
2. The course exclusion has been updated to include additional courses that have a significant overlap with this course.
3. The note section has been updated to inform students of important information related to the course.

Consultation:
DCC Approval: May 27, 2022
CMS Consulation: August 25, 2022

Resources:
None.

MGEC02H3: Topics in Price Theory

Description:

Previous: Continuing development of the principles of microeconomic theory. This course will build on the theory developed in MGEB02H3/(ECMB02H3). Topics will be chosen from a list which includes: monopoly, price discrimination, product differentiation, oligopoly, game theory, general equilibrium analysis, externalities and public goods. Enrolment is limited to students registered in programs requiring this course.

New: Continuing development of the principles of microeconomic theory. This course will build on the theory developed in MGEB02H3. Topics will be chosen from a list which includes: monopoly, price discrimination, product differentiation, oligopoly, game theory, general equilibrium analysis, externalities and public goods. Enrolment is limited to students registered in programs requiring this course.

Prerequisites:

Previous:
MGEB02H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]

New: MGEB02H3

Rationale:
1. The course description has removed incorrect double numbering.
2. The course prerequisite have changed to provide students more enrolment flexibility and overall flexibility to complete their BBA degrees.

Consultation:
DCC Approval: May 27, 2022

Resources:
None

MGEC06H3: Topics in Macroeconomic Theory

Description:

Previous: Continuing development of the principles of macroeconomic theory. The course will build on the theory developed in MGEB06H3/(ECMB06H3). Topics will be chosen from a list including consumption theory, investment, exchange rates, rational expectations, inflation, neo-Keynesian economics, monetary and fiscal policy. Enrolment is limited to students registered in programs requiring this course.

New: Continuing development of the principles of macroeconomic theory. The course will build on the theory developed in MGEB06H3. Topics will be chosen from a list including consumption theory, investment, exchange rates, rational expectations, inflation, neo-Keynesian economics, monetary and fiscal policy. Enrolment is limited to students registered in programs requiring this course.

Prerequisites:

Previous:
MGEB06H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]

New: MGEB06H3

Rationale:
1. The course description has removed old double numbering that is no longer necessary.
2. The course prerequisite have changed to provide students with more enrolment flexibility and overall flexibility to complete their BBA degrees.

Consultation:
DCC Approval: May 27, 2022

Resources:
None

MGEC11H3: Introduction to Regression Analysis

Prerequisites:

Previous:
MGEB11H3 and MGEB12H3

New: MGEB12H3

Rationale:
The course prerequisites have been changed to provide students with more enrolment flexibility.

Consultation:
DCC Approval: May 27, 2022

Resources:
None.

MGEC62H3: International Economics: Trade Theory

Prerequisites:

Previous:
MGEB01H3 or MGEB02H3

New: MGEB02H3 or [MGEB01H3 and MATA34H3] or [MGEB01H3 and [MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]]

Rationale:
The course prerequisites have been revised to provide students with more enrolment flexibility and to better prepare students for this course.

Consultation:
DCC Approval: September 23, 2022

Resources:
None.

MGFB10H3: Principles of Finance

Prerequisites:

Previous:

MGEB11H3 and MGAB01H3 and [MGTA35H3 or MGTA36H3]

New: MGEB11H3 and MGAB01H3 and [MGTA38H3 or (MGTA35H3) or (MGTA36H3)]

Rationale:
The prerequisites have been revised to add the new course MGTA38H3 and bracket the retired courses to ensure consistency throughout the Calendar.

Consultation:
DCC Approval: October 12, 2022

Resources:
None.

MGFD60H3: Financial Modeling and Trading Strategies

Corequisites:

Previous:
MGFC30H3 and MGFD10H3

New: MGFC30H3 and MGFC35H3/(MGFD10H3)

Rationale:
The corequisite has been changed to ensure accuracy throughout the Calendar.

Consultation:
DCC Approval: 3 Dec. 15, 2022

Resources:
None.

MGHB02H3: Managing People and Groups in Organizations

Enrolment Limits:

Previous: 60 **New:**

Prerequisites:

Previous:
[[MGTA01H3 and MGTA02H3] or MGTA05H3]] and [MGTA35H3 or MGTA36H3]

New: MGTA38H3 or (MGTA35H3) or (MGTA36H3)

Rationale:
1. The prerequisites have changed to provide students with more enrolment flexibility with a single course, the other two courses have been retired
2. The course enrolment limit has been removed as it is not necessary

Consultation:
DCC Approval: May 27, 2022 and October 12, 2022

Resources:
None.

MGHC02H3: Management Skills

Prerequisites:

Previous:
[MGHB02H3 or MGIB02H3] and MGHB12H3

New: [MGHB02H3 or MGIB02H3] and [MGHA12H3/(MGHB12H3) or MGIA12H3/(MGIB12H3)]

Rationale:
The prerequisites have been updated to ensure consistency throughout the Calendar.

Consultation:
DCC Approval: May 27, 2022

Resources:
None.

MGHC53H3: Introduction to Industrial Relations

Prerequisites:

Previous:
Completion of at least 10.0 credits including [[MGEA01H3 and MGEA05H3] or [MGEA02H3 and MGEA06H3]] and [[MGTA01H3 and MGTA02H3] or MGTA05H3]]

New: Completion of at least 10.0 credits including [[MGEA01H3 and MGEA05H3] or [MGEA02H3 and MGEA06H3]].

Rationale:
The prerequisites have been revised to provide students with more enrolment flexibility.

Consultation:
DCC Approval: May 27, 2022

Resources: None

MGHD24H3: Occupational Health and Safety Management

Prerequisites:

Previous:
MGHB12H3 or MGIB12H3

New: MGHA12H3/(MGHB12H3) or MGIA12H3/(MGIB12H3)

Rationale:
The course prerequisite has changed to ensure new course code changes are reflected.

Consultation:
DCC Approval: May 27, 2022

Resources:
None

MGHD25H3: Human Resources Recruitment and Selection

Prerequisites:

Previous: MGHB12H3 or MGIB12H3

New: MGHA12H3/(MGHB12H3) or MGIA12H3/(MGIB12H3)

Rationale:
The course prerequisite has changed to ensure new course code changes are reflected.

Consultation:
DCC Approval: May 27, 2022

Resources:
None.

MGHD26H3: Training and Development

Prerequisites:

Previous:
MGHB12H3 or MGIB12H3

New: MGHA12H3/(MGHB12H3) or MGIA12H3/(MGIB12H3)

Rationale: The course prerequisite has changed to ensure new course code changes are reflected.

Consultation: DCC Approval: May 27, 2022

Resources:
None

MGHD27H3: Human Resources Planning and Strategy

Prerequisites:

Previous:
MGHB12H3 or MGIB12H3

New: MGHA12H3/(MGHB12H3) or MGIA12H3/(MGIB12H3)

Rationale:
The course prerequisite has changed to ensure new course code changes are reflected.

Consultation:
DCC Approval: May 27, 2022

Resources:
None

MGHD28H3: Compensation

Prerequisites:

Previous:
MGHB12H3 or MGIB12H3

New: MGHA12H3/(MGHB12H3) or MGIA12H3/(MGIB12H3)

Rationale:
The course prerequisite has changed to ensure new course code changes are reflected.

Consultation:
DCC Approval: May 27, 2022

Resources:
None.

MGIB02H3: International Organizational Behaviour

Prerequisites:

Previous:
MGTA01H3 and MGTA02H3

New:

Corequisites:

Previous:
MGTA05H3

New:

Rationale:

The prerequisite and corequisite have been removed as they are no longer necessary, this will also provide students with overall more enrolment flexibility

Consultation:
DCC Approval: May 27, 2022

Resources:
None

MGIC02H3: International Leadership Skills

Prerequisites:

Previous:
[[MGTA01H3 and MGTA02H3] or MGTA05H3] and MGIB02H3

New: MGIB02H3

Rationale:
The prerequisite has been changed to provide students with overall more enrolment flexibility and remove redundancy in the prerequisite statement.

Consultation:
DCC Approval: May 27, 2022

Resources:
None

MGID79H3: International Capstone Case Analysis

Prerequisites:

Previous:
MGAB03H3 and MGIA01H3 and MGIB12H3 and MGIB02H3 and MGFC10H3 and MGIC01H3

New: MGAB03H3 and MGIA01H3 and MGIA12H3/(MGIB12H3) and MGIB02H3 and MGFC10H3 and MGIC01H3

Rationale:
The prerequisites have changed to update a new course code for (MGIB12H3)

Consultation:
DCC Approval: May 27, 2022

Resources:
None

MGMB01H3: Marketing Management

Prerequisites:

Previous:
[MGMA01H3 or MGIA01H3] and [MGTA35H3 or MGTA36H3]

New: [MGMA01H3 or MGIA01H3] and [MGTA38H3 or (MGTA35H3) or (MGTA36H3)]

Rationale:
The prerequisites have been revised to update a new course and bracket retired courses to ensure consistency throughout the Calendar

Consultation:
DCC Approval: October 12, 2022

Resources:
None

MGOC10H3: Analytics for Decision Making

Enrolment Limits:

Previous:
60

New:

Prerequisites:

Previous:
[MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3] and MGEB02H3 and MGEB11H3 and MGEB12H3 and [MGTA36H3 or MGTA35H3]

New: [[MATA29H3 or MATA30H3 or MATA31H3 or MATA32H3] and [MATA33H3 or MATA35H3 or MATA36H3 or MATA37H3]] or [[MATA34H3 and MGEB02H3 and MGEB11H3 and MGEB12H3 and [MGTA38H3 or (MGTA36H3) or (MGTA35H3)]]

Rationale:
1. The course prerequisites have been revised to add a new course and add retired courses. This will ensure consistency throughout the Calendar.
2. The course enrolment has been removed as it is no longer necessary.

Consultation:
DCC Approval: October 12, 2022

Resources:
None

MGSC03H3: Public Management

Prerequisites:

Previous:

MGHB02H3 or POLB50Y3

New: MGHB02H3 or [POLB56H3 and POLB57H3/(POLB50Y3)]

Rationale:
The prerequisites have been changed in response to the department of Political Science that has retired POLB50Y3 and replaced it with two new courses POLB56H3 & POLB57H3. This ensure accuracy and consistency throughout the Calendar.

Consultation:
DCC Approval: September 23, 2022.

Resources:
None

MGSC05H3: The Changing World of Business - Government Relations

Prerequisites:

Previous:
[MGTA01H3 and MGTA02H3] or MGTA05H3 or POLB50Y3

New: 4.0 credits or [POLB56H3 and POLB57H3/(POLB50Y3)]

Rationale:
The prerequisites have been revised to better prepare students for this course and also in response to the department of Political Science that has retired POLB50Y3 and replaced it with two new courses POLB56H3 & POLB57H3. This will ensure accuracy and consistency throughout the Calendar.

Consultation:
DCC Approval: May 27, 2022
Poli Sci Consultation: September 23, 2022.

Resources:
None.

MGSC14H3: Management Ethics

Prerequisites:

Previous:
[[MGTA01H3 and MGTA02H3] or MGTA05H3] and [MGTA36H3 or MGTA35H3]

New: MGTA38H3 or (MGTA35H3) or MGTA36H3)

Rationale:
The prerequisites have been revised to provide students with more enrolment flexibility, also added a new course and bracketed retired courses to ensure consistency throughout the Calendar.

Consultation:
DCC Approval: May 27, 2022 & October 12, 2022

Resources:
None

MGSC26H3: Venture Capital

Prerequisites:

Previous:
MGTA05H3 and MGFB10H3 and MGEC40H3

New: MGFB10H3 and MGEC40H3

Rationale:
The prerequisites have been revised to provide students with more enrolment flexibility.

Consultation:
DCC Approval: May 27, 2022

Resources:
None

MGSC30H3: The Legal Environment of Business I

Prerequisites:

Previous:
Completion of at least 10.0 credits including MGAB01H3 and MGAB02H3 and [MGTA36H3 or MGTA35H3]

New: Completion of at least 10.0 credits including MGAB01H3 and MGAB02H3 and [MGTA38H3 or (MGTA35H3) or (MGTA36H3)]

Exclusions:

Previous:
MGT393H5, RSM225H1

New: MGT393H5, RSM225H1

Rationale:
The prerequisites have been revised to bracket retired courses and add the replacement course. This ensures consistency throughout the Calendar.

Consultation:
DCC Approval: October 12, 2022

Resources:
None

MGSD01H3: Senior Seminar in Strategic Management

Description:

Previous: This course allows 4th year specialists in strategic management to apply their specific skills to several larger, in-depth studies of strategic management issues in open-ended real-world cases. How strategic decisions are made at the higher levels of management with an opportunity to integrate previous training through analyses and presentations.

New: This course allows 4th-year Specialists students in Strategic Management to deepen and broaden their strategic skills by strengthening their foundational knowledge of the field and by highlighting applications to key strategic management issues facing modern organizations. It will improve students' ability to think strategically and understand how strategic decisions are made at the higher levels of management.

Rationale:
The course description has been revised to correct grammatical errors and provide more clarity on the content covered in the course. This description provides a more balanced approach that considers both academic and practitioner perspectives, with the aim of making students better practitioners by improving their foundational understanding of strategic thinking.

Consultation:
DCC Approval: September 23, 2022

Resources:
None.

MGSD40H3: Principles of Corporate Social Responsibility

Prerequisites:

Previous: Completion of 10.0 credits, including MGTA05H3 or [MGTA01H3 and MGTA02H3]

New: Completion of 10.0 credits

Rationale:
The prerequisites have been revised to provide students with more enrolment flexibility.

Consultation:
DCC Approval: May 27, 2022

Resources:
None.

MGTB60H3: Introduction to the Business of Sport

Prerequisites:

Previous:
MGTA05H3 or [MGTA01H3 and MGTA02H3]

New:

Rationale:
The prerequisites have been revised to provide students with more enrolment flexibility.

Consultation:
DCC Approval: May 27, 2022

Resources:
None.

3 Retired Courses - No Committee

MGTA05H3: Foundations of Business Management

Rationale:
The department is retiring MGTA05H3 in response to the most recent external review of the department. It was recommended that the department reduce the number of courses required for students to obtain the BBA degree. The Department created a committee to examine the core requirements to see which courses might be eliminated from the core without compromising the learning objectives of the BBA programs. It was determined that MGTA05H3 offered content that was either unrelated to the learning objectives or repeated in other courses. The committee selected a total of 4-course requirements that could be removed from the core to give students more choices in their programs.

Consultation:
Core Curriculum Committee March 9, 2021
DCC Approval: May 27, 2022

Resources:
None

MGTA35H3: Management Communications for non Co-op

Rationale:
This course is being retired in response to the most recent external review of the department. It was recommended that the department should combine the two required communications courses MGTA35H3 and MGTA36H3 into a single new course MGTA38H3 to limit the number of required courses in programs and overall the BBA program degree requirement. It was determined that the learning outcomes of both MGTA35H3 and MGTA36H3 can be combined into a single course. This single core course will help to provide all BBA students with an opportunity to refine their communication skills, and will also strengthen the BBA community because both co-op and non co-op students will be enrolled in the same communication course.

Consultation:
Core Curriculum Committee March 9, 2021
DCC Approval: May 27, 2022

Resources:

None.

MGTA36H3: Management Communications for Co-op

Rationale:

This course is being retired in response to the most recent external review of the department. It was recommended that the department should combine the two required communications courses MGTA35H3 and MGTA36H3 into a single new course MGTA38H3 to limit the number of required courses in programs and overall the BBA program degree requirement. It was determined that the learning outcomes of both MGTA35H3 and MGTA36H3 can be combined into a single course. The Communication Course Committee researched and created a single new communication course MGTA38H3. This single core course will help to provide all BBA students with an opportunity to refine their communication skills, and will also strengthen the BBA community because both co-op and non co-op students will enrolled be in the same communication course.

Consultation:

Core Curriculum Committee March 9, 2021
DCC Approval: May 27, 2022

Resources:

None.

Physical & Environmental Sciences (UTSC), Department of

11 Program Changes

SCMAJ1762: MAJOR PROGRAM IN BIOCHEMISTRY (SCIENCE)

Completion Requirements:

Previous:
Program Requirements

Students should complete the following 9.0 credits:

First Year:
1. 3.0 credits from the following

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 *or* CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
[MATA35H3 Calculus II for Biological Sciences *or* MATA36H3 Calculus II for Physical Sciences]

Second and Later Years:
2. 6.0 credits from the following
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspect of Cellular and Genetic Processes
BIOB12H3 Cell & Molecular Biology Laboratory
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC23H3 Practical Approaches to Biochemistry
CHMB16H3 Techniques in Analytical Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMC47H3 Bio-Organic Chemistry
and
0.5 credit from the following:
CHMB20H3* Chemical Thermodynamics and Elementary Kinetics
CHMB23H3* Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMC11H3 Principles of Analytical Instrumentation
CHMC41H3 Organic Reaction Mechanisms
CHMC42H3 Organic Synthesis
* If CHMB20H3 or CHMB23H3 is selected, PHYA10H3 is required.
and
0.5 credit from the following:
CHMD47H3 Advanced Bio-Organic Chemistry
CHMD69H3 Chemical Elements in Living Systems
CHMD71H3 Pharmaceutical Chemistry
CHMD79H3 Topics in Biological Chemistry

Note: This program cannot be combined with the Major Program in Chemistry. However, when students are selecting their course of studies, they should refer to the University of Toronto guidelines for program breadth and depth requirements (see Degree Requirements).

New:

Program Requirements

Students should complete the following 9.0 credits:

First Year:
1. 3.0 credits from the following
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 *or* CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
[MATA35H3 Calculus II for Biological Sciences *or* MATA36H3 Calculus II for Physical Sciences]

Second and Later Years:

2. 6.0 credits from the following
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspect of Cellular and Genetic Processes
BIOB12H3 Cell & Molecular Biology Laboratory
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC23H3 Practical Approaches to Biochemistry
CHMB16H3 Techniques in Analytical Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMC47H3 Bio-Organic Chemistry
and
0.5 credit from the following:
*CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
*CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMC11H3 Principles of Analytical Instrumentation
CHMC42H3 Organic Synthesis
CHMC71H3/(CHMD71H3) Medicinal Chemistry
* If CHMB20H3 or CHMB23H3 is selected, one of either [PHYA10H3 or PHYA11H3] is required.
and
0.5 credit from the following:
CHMD41H3/(CHMC41H3) Physical Organic Chemistry
CHMD47H3 Advanced Bio-Organic Chemistry
CHMD69H3 Chemical Elements in Living Systems
CHMD79H3 Topics in Biological Chemistry

Description of Proposed Changes:
1. Requirement 2: Asterrick Note has added PHYA10H3 and PHYA11H3 as optional courses. The note at the bottom of the calendar entry is being removed.
2. Second and Later Years: Course code changes for CHMC41H3 to CHMD41H3 as an optional course and changes to CHMD71H3 to CHMC71H3 as an optional course.

Rationale:
1. The prerequisites for CHMB20H3 and CHMB23H3 are being changed to allow either PHYA10H3 or PHYA11H3, and the note is being updated to reflect this change. The note at the bottom of the calendar entry is redundant with the note already in place under the program description.
2. The changes to the C- and D-level credits are triggered by course changes which are moving CHMC41H3 to the D-level CHMD41H3 and CHMD71H3 to the C-level course CHMC71H3; changes are made to ensure this is reflected in the program requirement. Both these courses were swapped to be in the correct bin

Impact: None

Consultations: DCC Approval: October 12th 2022.

Resource Implications: None.

SCMAJ0361: MAJOR PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
Students must complete 9.0 credits as follows:

First Year (3.0 credits):
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms or CHMA12H3 Advanced General Chemistry]
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
EESA01H3 Introduction to Environmental Science
and 0.5 credit from:
EESA06H3 Introduction to Planet Earth
EESA07H3 Water
EESA11H3 Environmental Pollution

Second and Later Years (6.0 credits):
CHMB16H3 Techniques in Analytical Chemistry
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB55H3 Environmental Chemistry
CHMC11H3 Principles of Analytical Information
and 0.5 credit from:
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
and
2.5 additional credits in CHM courses that meet the following criteria:
i. at least 2.0 credits must be at the C- or D-level

ii. at least 0.5 credit must be at the D-level
iii. at least 0.5 credit at the C- or D-level must be a course with a laboratory component (CHMD16H3 is highly recommended)

New:

Program Requirements
Students must complete 9.0 credits as follows:

First Year (3.0 credits):
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms or CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
[MATA35H3 Calculus II for Biological Sciences *or* MATA36H3 Calculus II for Physical Sciences]
EESA01H3 Introduction to Environmental Science
and 0.5 credit from:
EESA06H3 Introduction to Planet Earth
EESA07H3 Water
EESA11H3 Environmental Pollution

Second and Later Years (6.0 credits):
CHMB16H3 Techniques in Analytical Chemistry
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB55H3 Environmental Chemistry
CHMC11H3 Principles of Analytical Information
and 0.5 credit from:
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
and
2.5 additional credits in CHM courses that meet the following criteria:
i. at least 2.0 credits must be at the C- or D-level
ii. at least 0.5 credit must be at the D-level
iii. at least 0.5 credit at the C- or D-level must be a course with a laboratory component (CHMD16H3 is highly recommended)

Description of Proposed Changes: First year: added MATA29H3 as an option to MATA30H3 and MATA35H3 as an option to MATA36H3

Rationale: This will provide students more flexibility to complete their math requirements

Impact: None.

Consultations: DCC Approval: October 12th, 2022.

Resource Implications: None.

SCMAJ2735: MAJOR PROGRAM IN ENVIRONMENTAL STUDIES (ARTS)

Completion Requirements:

Previous:

Program Requirements
Completion of 8.5 credits as follows:

1. Core Courses (2.5 credits)

EESA01H3 Introduction to Environmental Science
[MGEA01H3 Introduction to Microeconomics *or* MGEA05H3 Introduction to Macroeconomics]
ESTB01H3 Introduction to Environmental Studies
and
0.5 credit chosen from the following:
ANTB01H3 Political Ecology
ESTB02H3/GGRB18H3 Canada, Indigenous Peoples, and the Land
GGRA03H3 Cities and Environments
POLA01H3 Critical Issues in Politics I
POLA02H3 Critical Issues in Politics II
POLB80H3 Introduction to International Relations I
and
0.5 credit chosen from the following:
EESA06H3 Introduction to Planet Earth
EESA07H3 Water
EESA09H3 Wind
EESA10H3 Human Health and the Environment
EESA11H3 Environmental Pollution
EESB18H3 Natural Hazards

2. Foundations and Skills (4.0 credits)
ESTC35H3 Environmental Science and Technology in Society
ESTC36H3 Knowledge, Ethics and Environmental Decision-Making
IDSB02H3 Development and Environment
STAB22H3 Statistics I (or equivalent)
and
2.0 credits chosen from the following:
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB17H3 Hydro Politics and Transboundary Water Resources Management
EESC13H3 Environmental Impact Assessment and Auditing
EESD13H3 Environmental Law, Policy and Ethics
ESTB04H3 Addressing the Climate Change
ESTC34H3 Sustainability in Practice
ESTC40H3 Technical Methods for Climate Change Mitigation
ESTD20H3 Integrated Natural Resource and Climate Change Governance
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
GGRB21H3 Political Ecology: Nature, Society and Environmental Change
(GGRC22H3) Political Ecology Theory and Applications
GGRC26H3 Geographies of Environmental Governance
GGRC28H3 Indigenous Peoples, Environment and Justice
GGRC44H3 Environmental Conservation and Sustainable Development
POLC53H3 Canadian Environmental Policy
POLD89H3 Global Environmental Politics
SOCC37H3 Environment and Society

3. Capstone and Applications (2.0 credits)
[ESTD16H3 Project Management in Environmental Studies *or* ESTD19H3 Risk]
ESTD17Y3 Cohort Capstone Course in Environmental Studies
ESTD18H3 Environmental Studies Seminar Series

New:

Program Requirements
Completion of 8.5 credits as follows:

1. Core Courses (2.5 credits)
EESA01H3 Introduction to Environmental Science
[MGEA01H3 Introduction to Microeconomics *or* MGEA05H3 Introduction to Macroeconomics]
ESTB01H3 Introduction to Environmental Studies
and
0.5 credit chosen from the following:
ANTB01H3 Political Ecology
ESTB02H3/GGRB18H3 Canada, Indigenous Peoples, and the Land
GGRA03H3 Cities and Environments
POLA01H3 Critical Issues in Politics I
POLA02H3 Critical Issues in Politics II
POLB80H3 Introduction to International Relations I
and
0.5 credit chosen from the following:
EESA06H3 Introduction to Planet Earth
EESA07H3 Water
EESA09H3 Wind
EESA10H3 Human Health and the Environment
EESA11H3 Environmental Pollution
EESB18H3 Natural Hazards

2. Foundations and Skills (4.0 credits)
[ESTC35H3 Environmental Science and Technology in Society *or* ESTC36H3 Knowledge, Ethics and Environmental Decision-Making]
ESTC34H3 Sustainability in Practice
ESTC36H3 Knowledge, Ethics and Environmental Decision-Making
IDSB02H3 Development and Environment
STAB22H3 Statistics I (or equivalent)
and
2.0 credits from the following:
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB17H3 Hydro Politics and Transboundary Water Resources Management
EESC13H3 Environmental Impact Assessment and Auditing
EESD13H3 Environmental Law, Policy and Ethics
ESTB04H3 Addressing the Climate Change
ESTC40H3 Technical Methods for Climate Change Mitigation

ESTD20H3 Integrated Natural Resource and Climate Change Governance
GGRA30H3 Geographic Information Systems (GIS) and Empirical Reasoning
GGRB21H3 Political Ecology: Nature, Society and Environmental Change
(GGRC22H3) Political Ecology Theory and Applications
GGRC26H3 Geographies of Environmental Governance
GGRC28H3 Indigenous Peoples, Environment and Justice
GGRC44H3 Environmental Conservation and Sustainable Development
POLC53H3 Canadian Environmental Policy
POLD89H3 Global Environmental Politics
SOCC37H3 Environment and Society

3. Capstone and Applications (2.0 credits)
[ESTD16H3 Project Management in Environmental Studies *or* ESTD19H3 Risk]
ESTD17Y3 Cohort Capstone Course in Environmental Studies
ESTD18H3 Environmental Studies Seminar Series

Description of Proposed Changes:
Requirement 2: added ESTC35H3 as an optional course to ESTC36H3 will be binned to enable ESTC34H3 to become a required course. Made EStC34H3 a required course ESTC34H3/EES34H3 will be a required course for the Major in Environmental Studies

Rationale:
Students will have the choice of taking ESTC35H3 or ESTC36H3 to satisfy this program requirement. This will provide students with more flexibility. ESTC34H3 has become a required course for this program requirement because it offers fundamental theoretical and practical experience in sustainability thinking, which is important for the overall program. This course will also better prepare students for the capstone.

Impact: None

Consultations: DCC Approval: October 12th, 2022.

Resource Implications: None

SCMAJ2010: MAJOR PROGRAM IN PHYSICAL SCIENCES (SCIENCE)

Completion Requirements:

Previous:

Program Requirements:
This program requires 8.0 credits as follows:

First Year:
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
MATA30H3 Calculus I for Physical Sciences
MATA22H3 Linear Algebra I for Mathematical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]

Second or Third Year
2.5 credits from the following:
PHYB10H3 Intermediate Physics Laboratory I
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
PHYB56H3 Introduction to Quantum 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
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy
STAB52H3 Introduction to Probability

Third or Fourth Year
2.0 credits from the following:
PHYB57H3 Introduction to Scientific Computing
ASTC25H3 Astrophysics of Planetary Systems
MATC34H3 Complex Variables
MATC46H3 Differential Equations II
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC14H3 Introduction to Atmospheric Physics
PHYC54H3 Classical Mechanics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos

PSCD02H3 Current Questions in Mathematics and Science
PHYD26H3 Planetary Geophysics
PSCD50H3 Advanced Topics in Quantum Mechanics
[PHYD01H3 Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics]

New:

Program Requirements:
This program requires 8.0 credits as follows:

First Year:
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
[MATA30H3 Calculus I for Physical Sciences or MATA31H3 Calculus I for Mathematical Sciences]
MATA22H3 Linear Algebra I for Mathematical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]

Second or Third Year
2.5 credits from the following:
PHYB10H3 Intermediate Physics Laboratory I
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
PHYB56H3 Introduction to Quantum 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
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy
[STAB52H3 Introduction to Probability or STAB53H3 Introduction to Applied Probability]

Third or Fourth Year
2.0 credits from the following:
PHYB57H3 Introduction to Scientific Computing
ASTC25H3 Astrophysics of Planetary Systems
MATC34H3 Complex Variables
MATC46H3 Differential Equations II
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC14H3 Introduction to Atmospheric Physics
PHYC54H3 Classical Mechanics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PSCD02H3 Current Questions in Mathematics and Science
PHYD26H3 Planetary Geophysics
PSCD50H3 Advanced Topics in Quantum Mechanics
[PHYD01H3 Research Project in Physics and Astrophysics *or* *PHYD02Y3 Research Project in Physics and Astrophysics or PHYD72H3 Supervised Reading in Physics and Astrophysics]

*Note: A maximum of 0.5 credit from PHYD02Y3 will count against this requirement. The remaining 0.5 credit can be used to satisfy degree-level requirements.

Description of Proposed Changes:
1. Frist Year: Added MATA31H3 as an optional course to MATA30H3.
2. Second Year: Added STAB53H3 as an optional course to STAB52H3.
3. Third and Fourth Year: Added new course PHYD02Y3 as an optional course PHYD01H3 and PHYD72. Also added a note about the PHYD02Y3 credit count of a new course, PHYD02Y3, as an option in 3rd or 4th year of the program.

Rationale:
1. MATA31H3 has been added to allow students to take either STAB52H3 or STAB5H3 and avoid any hidden prerequisites.
2. CMS has split STAB52H3 into two courses STAB52H3 and STAB53H3, to ensure consistency in the Calendar, this change has been reflected accordingly.
3. The new course PHYD02Y3 added is relevant to the program and will provide students with an additional course option. The note has been added to inform students of how many credits will count towards this program requirement.

Impact: None

Consultations:
CMS Consultation: Summer 2022
DCC Approval: October 12th, 2022.

Resource Implications: None.

SCMAJ0272B: MAJOR PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
This program requires 8.5 credits as follows:

First Year
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
[MATA30H3 Calculus I for Physical Sciences *or* MATA31H3 Calculus I for Mathematical Sciences]
[MATA22H3 Linear Algebra I for Mathematical Sciences *or* MATA23H3 Linear Algebra I]
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]

Second and Later Years
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
PHYB10H3 Intermediate Physics Laboratory I
and
1.5 credits from the following:
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
and
2.0 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
MATC34H3 Complex Variables
MATC46H3 Differential Equations II
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC14H3 Introduction to Atmospheric Physics
PHYC54H3 Classical Mechanics
PHYD26H3 Planetary Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Nonlinear Systems and Chaos
PHYB57H3 Introduction to Scientific Computing
PSCD02H3 Current Questions in Mathematics and Science
PSCD50H3 Advanced Topics in Quantum Mechanics
[PHYD01H3 Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics]

New:

Program Requirements
This program requires 8.5 credits as follows:

First Year
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
[MATA30H3 Calculus I for Physical Sciences *or* MATA31H3 Calculus I for Mathematical Sciences]
[MATA22H3 Linear Algebra I for Mathematical Sciences *or* MATA23H3 Linear Algebra I]
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]

Second and Later Years
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I
PHYB10H3 Intermediate Physics Laboratory I
and
1.5 credits from the following:
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos

and
2.0 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
MATC34H3 Complex Variables
MATC46H3 Differential Equations II
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC14H3 Introduction to Atmospheric Physics
PHYC54H3 Classical Mechanics
PHYD26H3 Planetary Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Nonlinear Systems and Chaos
PHYB57H3 Introduction to Scientific Computing
PSCD02H3 Current Questions in Mathematics and Science
PSCD50H3 Advanced Topics in Quantum Mechanics
[PHYD01H3 Research Project in Physics and Astrophysics *or* *PHYD02Y3 Extended Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics]

*Note: A maximum of 0.5 credit from PHYD02Y3 will count for this requirement. The remaining 0.5 credit can be used to satisfy the overall degree-level requirements.

Description of Proposed Changes: Second-Year Courses: added optional new course PHYD02Y3

Rationale: The new PHYD02Y3 course added is relevant to the program and will provide students with an additional course option.

Impact: None.

Consultations: DCC Approval: October 12th, 2022.

Resource Implications: None.

SCMIN1423: MINOR PROGRAM IN ASTRONOMY AND ASTROPHYSICS (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
Students must complete 5.0 credits as follows:
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
MATA23H3 Linear Algebra I
MATA30H3 Calculus I for Physical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
ASTC25H3 Astrophysics of Planetary Systems
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
[PHYD01H3 Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics *or* any other AST C- or D-level course]

New:

Program Requirements
Students must complete 5.0 credits as follows:
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
MATA23H3 Linear Algebra I
MATA30H3 Calculus I for Physical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
ASTC25H3 Astrophysics of Planetary Systems
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
any other AST C- or D-level course

Description of Proposed Changes: Removed PHYD01 and PHYD72 as optional courses

Rationale: The inclusion of PHYD01H3 and PHYD72H3 is misleading because students in the minor program are not qualified to complete these capstone research/reading courses.

Impact: None.

Consultations: DCC Approval: October 12th 2022.

Resource Implications: None.

SCSPE1376: SPECIALIST PROGRAM IN CHEMISTRY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
The Program requires completion of 14.0 credits as follows:

First Year:
1. 4.0 credits from the following
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms *or* CHMA12H3 Advanced General Chemistry]
MATA23H3 Linear Algebra I
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
STAB22H3 Statistics I

Second Year:
2. 4.0 credits from the following
CHMB16H3 Techniques in Analytical Chemistry
CHMB21H3 Chemical Structure and Spectroscopy
CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB62H3 Introduction to Biochemistry
MATB41H3 Techniques of Calculus of Several Variables I

Third Year:
3. 3.0 credits from the following
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:
4. 3.0 credits from the following
PSCD02H3 Current Questions in Mathematics and Science
and
0.5 credit in any C-level or 300-level CHM course not already taken
and
2.0 credits in any D-level or 400-level CHM course including one of the following:
CHMD90Y3 Directed Research
CHMD91H3 Directed Research
CHMD92H3 Advanced Chemistry Laboratory Course

New:

Program Requirements
The Program requires completion of 14.0 credits as follows:

First Year:
1. 4.0 credits from the following
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms *or* CHMA12H3 Advanced General Chemistry]
MATA23H3 Linear Algebra I
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
STAB22H3 Statistics I

Second Year:
2. 4.0 credits from the following
CHMB16H3 Techniques in Analytical Chemistry

CHMB21H3 Chemical Structure and Spectroscopy
CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB62H3 Introduction to Biochemistry
MATB41H3 Techniques of Calculus of Several Variables I

Third Year:
3. 3.0 credits from the following
CHMC11H3 Principles of Analytical Instrumentation
CHMC16H3 Analytical Instrumentation
[CHMC20H3 Intermediate Physical Chemistry *or* CHMC21H3 Topics in Biophysical Chemistry]
CHMC31Y3 Intermediate Inorganic Chemistry
CHMC42H3 Organic Synthesis

Fourth Year:
4. 3.0 credits from the following
PSCD02H3 Current Questions in Mathematics and Science
and
0.5 credit in any C-level or 300-level CHM course not already taken
and
2.0 credits in any D-level or 400-level CHM course including one of the following:
CHMD90Y3 Directed Research
CHMD91H3 Directed Research
CHMD92H3 Advanced Chemistry Laboratory Course

Description of Proposed Changes: Third Year: CHMC41H3 is being removed as an optional course

Rationale: CHMC41H3 course code has changed to CHMD41H3, this course is not required for this program and Is therefore being removed from the optional course list.

Impact: None.

Consultations: DCC Approval: November 2022.

Resource Implications: None.

SCSPE0361: SPECIALIST PROGRAM IN ENVIRONMENTAL CHEMISTRY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
Total requirements: 16.0 credits

First Year (4.5 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 *or* CHMA12H3 Advanced General Chemistry]
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
MATA30H3 Calculus I for Physical Sciences
MATA36H3 Calculus II for Physical Sciences
PHYA10H3 Physics I for the Physical Sciences

Second Year (4.5 credits):
CHMB16H3 Techniques in Analytical Chemistry
CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB55H3 Environmental Chemistry
EESB15H3 Earth History
and
0.5 credit from the following:
CHMB21H3 Chemical Structure and Spectroscopy
CHMB62H3 Introduction to Biochemistry
and
0.5 credit from the following:
EESB03H3 Principles of Climatology
EESB19H3 Mineralogy

Third Year (4.0 credits):
CHMC11H3 Principles of Analytical Instrumentation
EESC07H3 Groundwater
EESC20H3 Geochemistry

STAB22H3 Statistics I
and
1.5 credit from the following:
CHMC16H3 Analytical Instrumentation
CHMC31Y3 Intermediate Inorganic Chemistry
CHMC41H3 Organic Reaction Mechanisms
CHMC42H3 Organic Synthesis
CHMC47H3 Bio-Organic Chemistry
and
0.5 credit from the following:
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science

Fourth Year (3.0 credits):
CHMD16H3 Environmental and Analytical Chemistry
EESC13H3 Environmental Impact Assessment and Auditing
EESD02H3 Contaminant Hydrogeology
EESD15H3 Fundamentals of Site Remediation
and
1.0 credit from the following, including one of CHMD90Y3, CHMD91H3 and CHMD92H3:
CHMD11H3 Application of Spectroscopy in Chemical Structure Determination
CHMD59H3 Modelling the Fate of Organic Chemicals in the Environment
CHMD89H3 Introduction to Green Chemistry
CHMD90Y3 Directed Research in Chemistry
CHMD91H3 Directed Research in Chemistry
CHMD92H3 Advanced Chemistry Laboratory Course

New:

Program Requirements
Total requirements: 16.0 credits

First Year (4.5 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 *or* CHMA12H3 Advanced General Chemistry]
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
[MATA29H3 Calculus I for Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
[MATA35H3 Calculus II for Biological Sciences *or* MATA36H3 Calculus II for Physical Sciences]
[PHYA10H3 Physics I for the Physical Sciences *or* PHYA11H3 Physics I for the Life Sciences]

Second Year (4.5 credits):
CHMB16H3 Techniques in Analytical Chemistry
CHMB23H3 Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice
CHMB31H3 Introduction to Inorganic Chemistry
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
CHMB55H3 Environmental Chemistry
EESB15H3 Earth History
and
0.5 credit from the following:
CHMB21H3 Chemical Structure and Spectroscopy
CHMB62H3 Introduction to Biochemistry
and
0.5 credit from the following:
EESB03H3 Principles of Climatology
EESB19H3 Mineralogy

Third Year (4.0 credits):
CHMC11H3 Principles of Analytical Instrumentation
EESC07H3 Groundwater
EESC20H3 Geochemistry
STAB22H3 Statistics I
and
1.5 credit from the following:
CHMC16H3 Analytical Instrumentation
CHMC31Y3 Intermediate Inorganic Chemistry
CHMC42H3 Organic Synthesis
CHMC47H3 Bio-Organic Chemistry
and
0.5 credit from the following:
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science

Fourth Year (3.0 credits):
CHMD16H3 Environmental and Analytical Chemistry
EESC13H3 Environmental Impact Assessment and Auditing
EESD02H3 Contaminant Hydrogeology
EESD15H3 Fundamentals of Site Remediation
and
1.0 credit from the following, including 0.5 credits from CHMD90Y3, CHMD91H3 and CHMD92H3:
CHMD11H3 Application of Spectroscopy in Chemical Structure Determination
CHMD59H3 Modelling the Fate of Organic Chemicals in the Environment
CHMD89H3 Introduction to Green Chemistry
CHMD90Y3 Directed Research in Chemistry
CHMD91H3 Directed Research in Chemistry
CHMD92H3 Advanced Chemistry Laboratory Course

Enrolment Requirements:

Previous:

Enrolment Requirements

Students may apply to this program after completing at least 4.0 credits from the following: EESA01H3, EESA06H3, BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], MATA30H3, MATA36H3, and PHYA10H3; in addition, they must have achieved a cumulative grade point average (CGPA) of at least 2.0. Application for admission to the program is made to the Registrar through ACORN. See the UTSC Registrar's website for information on the program (Subject POSt) selection, and application window dates on the following website.

New:

Enrolment Requirements

Students may apply to this program after completing at least 4.0 credits from the following: EESA01H3, EESA06H3, BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], [MATA29H3 or MATA30H3], [MATA35H3 or MATA36H3], and [PHYA10H3 or PHYA11H3]; in addition, they must have achieved a cumulative grade point average (CGPA) of at least 2.0. Application for admission to the program is made to the Registrar through ACORN. See the UTSC Registrar's website for information on the program (Subject POSt) selection, and application window dates on the following website.

Description of Proposed Changes:
1. Enrollment Requirements and First-year have added MATA29H3 as an optional course to MATA30H3, MATA35H3 as an optional course to MATA36H3, and PHYA10H3as an optional course to PHYA11H3
2. Third Year removed CHMC41H3 as an optional course

Rationale:
1. This course change opens the door to a program change and provides students more flexibility also the MAT courses allow for more access to enrol in either PHYA10H3 or PHYA11H3 in the first year.
2. CHMC41H3 will no longer have an accompanying lab and is therefore not equivalent to the other course options in this list.

Impact: None.

Consultations: DCC Approval: October 12th 2022.

Resource Implications: None

SCSPE0351A: SPECIALIST PROGRAM IN ENVIRONMENTAL GEOSCIENCE (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
Total requirements: 16.0 credits of which 1.0 credit must be at the D-level as follows:

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
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
MATA30H3 Calculus I for Physical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences

Second Year:
CHMB55H3 Environmental Chemistry
EESB02H3 Principles of Geomorphology

EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB15H3 Earth History
EESB18H3 Natural Hazards
EESB19H3 Mineralogy
CSCA20H3 Introduction to Programming
STAB22H3 Statistics I

Third Year:
EESB20H3 Sedimentology and Stratigraphy
EESC03H3 Geographic Information Systems and Remote Sensing
EESC07H3 Groundwater
EESC13H3 Environmental Impact Assessment and Auditing
EESC20H3 Geochemistry
EESC31H3 Glacial Geology
EESC36H3 Petrology
and
0.5 credit from the following:
BIOB50H3 Ecology
EESB21H3 Exploration Geophysics
EESB26H3 Introduction to Global Geophysics
EESC18H3 Limnology
EESC19H3 Oceanography

Fourth Year:
EESC37H3 Structural Geology
and
0.5 credit from the following:
EESC26H3 Seismology and Seismic Methods
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD09H3 Research Project in Environmental Science
EESD10Y3 Research Project in Environmental Science
EESD11H3 Advanced Watershed Hydrology
EESD13H3 Environmental Law, Policy and Ethics
EESD15H3 Fundamentals of Site Remediation
EESD19H3 Professional Development Seminars in Geoscience
EESD20H3 Geological Evolution and Environmental History of North America
EESD21H3 Geophysical and Climate Data Analysis
and
[1.0 credit at the C- or D-level in EES courses] or [0.5 credit at the C- or D-level in EES courses and PSCD11H3 Communicating Science: Film, Media, Journalism, and Society]
Strongly recommended: EESC16H3 Field Camp I or EESD07H3 Field Camp II or EESD33H3 Field Techniques

New:

Program Requirements
Total requirements: 16.0 credits of which 1.0 credit must be at the D-level as follows:

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
EESA01H3 Introduction to Environmental Science
EESA06H3 Introduction to Planet Earth
MATA30H3 Calculus I for Physical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences

Second Year:
CHMB55H3 Environmental Chemistry
EESB02H3 Principles of Geomorphology
EESB03H3 Principles of Climatology
EESB04H3 Principles of Hydrology
EESB05H3 Principles of Soil Science
EESB15H3 Earth History
EESB18H3 Natural Hazards
EESB19H3 Mineralogy
CSCA20H3 Introduction to Programming
STAB22H3 Statistics I

Third Year:

EESB20H3 Sedimentology and Stratigraphy
EESC03H3 Geographic Information Systems and Remote Sensing
EESC07H3 Groundwater
EESC13H3 Environmental Impact Assessment and Auditing
EESC20H3 Geochemistry
EESC31H3 Glacial Geology
EESC36H3 Petrology
and
0.5 credit from the following:
BIOB50H3 Ecology
EESB21H3 Exploration Geophysics
EESB22H3 Environmental Geophysics
EESB26H3 Introduction to Global Geophysics
EESC18H3 Limnology
EESC19H3 Oceanography

Fourth Year:
EESC37H3 Structural Geology
and
0.5 credit from the following:
EESC26H3 Seismology and Seismic Methods
EESD02H3 Contaminant Hydrogeology
EESD06H3 Climate Change Impact Assessment
EESD09H3 Research Project in Environmental Science
EESD10Y3 Research Project in Environmental Science
EESD11H3 Advanced Watershed Hydrology
EESD13H3 Environmental Law, Policy and Ethics
EESD15H3 Fundamentals of Site Remediation
EESD19H3 Professional Development Seminars in Geoscience
EESD20H3 Geological Evolution and Environmental History of North America
EESD21H3 Geophysical and Climate Data Analysis
and
[1.0 credit at the C- or D-level in EES courses] or [0.5 credit at the C- or D-level in EES courses and PSCD11H3 Communicating Science: Film, Media, Journalism, and Society]
Strongly recommended: EESC16H3 Field Camp I *or* EESD07H3 Field Camp II *or* EESD33H3 Field Techniques

Description of Proposed Changes: Third Year: added new course EESB22 as an optional course

Rationale: This new course will provide students with additional options to complete this program's requirement

Impact: None.

Consultations: DCC Approval: October 12th, 2022.

Resource Implications: None.

SCSPE1660: SPECIALIST PROGRAM IN PHYSICAL AND MATHEMATICAL SCIENCES (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
This program requires 15.5 credits as follows:

First Year:
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
CSCA20H3 Introduction to Programming*
MATA30H3 Calculus I for Physical Sciences
MATA22H3 Linear Algebra I for Mathematical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences

***Note**: CSCA08H3** may be substituted for CSCA20H3

Second Year
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
PHYB10H3 Intermediate Physics Laboratory I
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics

Second or Third Year

ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy
MATB61H3 Linear Programming
PHYB54H3 Mechanics: From Oscillations to Chaos
PHYB57H3 Introduction to Scientific Computing
STAB52H3 An Introduction to Probability

Third or Fourth Year
4.0 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCD37H3 Analysis of Numerical Algorithms for Computational Mathematics
MATC34H3 Complex Variables
MATC46H3 Differential Equations II
PHYC11H3 Intermediate Physics Laboratory II
PHYC14H3 Introduction to Atmospheric Physics
PHYC50H3 Electromagnetic Theory
PHYC54H3 Classical Mechanics
PHYC56H3 Quantum Mechanics I
[PHYD01H3 Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics]
PHYD26H3 Planetary Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PSCD02H3 Current Questions in Mathematics and Science
PSCD50H3 Advanced Topics in Quantum Mechanics

Note: To satisfy the prerequisite requirements of upper-level Computer Science Courses, students planning to take such courses should take CSCA08H3, rather than CSCA20H3, which is otherwise preferred for this program.

New:

Program Requirements
This program requires 15.5 credits as follows:

First Year:
CHMA10H3 Introductory Chemistry I: Structure and Bonding
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms
*[CSCA08H3 Introduction to Computer Science *or* CSCA20H3 Introduction to Programming]
[MATA30H3 Calculus I for Physical Sciences *or* MATA31H3 Calculus for Mathematical Sciences]
MATA22H3 Linear Algebra I for Mathematical Sciences
[MATA36H3 Calculus II for Physical Sciences *or* MATA37H3 Calculus II for Mathematical Sciences]
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences

*The preferred and recommended course for this program is CSCA20H3. However, students planning to take upper-level Computer Science courses should take CSCA08H3 instead

Second Year
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
PHYB10H3 Intermediate Physics Laboratory I
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics

Second or Third Year
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
CHMB20H3 Chemical Thermodynamics and Elementary Kinetics
CHMB21H3 Chemical Structure and Spectroscopy
MATB61H3 Linear Programming
PHYB54H3 Mechanics: From Oscillations to Chaos
PHYB57H3 Introduction to Scientific Computing
[STAB52H3 An Introduction to Probability *or* STAB53H3 Introduction to Applied Probability]

Third or Fourth Year
4.0 credits from the following:
ASTC25H3 Astrophysics of Planetary Systems
CSCC37H3 Introduction to Numerical Algorithms for Computational Mathematics
CSCD37H3 Analysis of Numerical Algorithms for Computational Mathematics
MATC34H3 Complex Variables

MATC46H3 Differential Equations II
PHYC11H3 Intermediate Physics Laboratory II
PHYC14H3 Introduction to Atmospheric Physics
PHYC50H3 Electromagnetic Theory
PHYC54H3 Classical Mechanics
PHYC56H3 Quantum Mechanics I
[PHYD01H3 Research Project in Physics and Astrophysics *or* **PHYD02Y3 Extended Research Project in Physics and Astrophysics *or* PHYD72H3 Supervised Reading in Physics and Astrophysics]
PHYD26H3 Planetary Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PSCD02H3 Current Questions in Mathematics and Science
PSCD50H3 Advanced Topics in Quantum Mechanics

** A maximum of 0.5 credit from PHYD02Y3 will count against this requirement. The remaining 0.5 credit can be used to satisfy degree-level requirements.

Description of Proposed Changes:
1. First Year: tweaked language for the CSCA08H3 note. Moved the additional note from the bottom to the right at the end of this program requirement. Added MATA30H3 as optional course MATA31H3.
2. Second Year: STAB53H3 as an optional course to STAB52H3
3. Third and Fourth Year: Added new course PHYD02Y3 as an optional course.
4. Added important note about PHYD02Y3

Rationale:
1. The original language used to substitute, as per Calendar language, providing students with the option of is more clear. The note was misplaced at the bottom, moving this to the relevant area provides more clarity. Adding MATA30H3 as an additional option will provide students more flexibility to complete the first year MAT requirement.
2. Adding the new stab course will provide accuracy with the CMS department and also provide students more flexibility to complete this requirement
3. Adding this new course will provide students with more flexibility at the D-level to complete this program requirement.
4. the note ensures students understand how many credits can be used toward the fourth year section 2 program requirement

Impact: None.

Consultations: DCC Approval: October 12th 2022.

Resource Implications: None

SCSPE1234A: SPECIALIST PROGRAM IN PHYSICS AND ASTROPHYSICS (SCIENCE)

Completion Requirements:

Previous:

Program Requirements:
The Program requires 13.5 credits as follows:

First Year
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
[MATA30H3 Calculus I for Physical Sciences or MATA31H3 Calculus I for Mathematical Sciences]
[MATA22H3 Linear Algebra I for Mathematical Sciences or MATA23H3 Linear Algebra I]
[MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]
CSCA20H3 Introduction to Programming*
*Note: CSCA08H3** may be substituted for CSCA20H3

Second Year
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
PHYB10H3 Intermediate Physics Laboratory I
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I

Third Year
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC54H3 Classical Mechanics
PHYB57H3 Introduction to Scientific Computing
MATC34H3 Complex Variables
MATC46H3 Differential Equations II

Fourth Year
1.5 credit from the following:
ASTC25H3 Astrophysics of Planetary Systems
PHYC14H3 Introduction to Atmospheric Physics

PHYD26H3 Planetary Geophysics
PHYD27H3 Physics of Climate Modeling
PHYD28H3 Introduction to Magnetohydrodynamics for Astrophysics and Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PHYD57H3 Advanced Computational Methods in Physics
PHY452H1 Basic Statistical Mechanics
PHY456H1 Quantum Mechanics II
PHY483H1 Relativity Theory I
PHY484H1 Relativity Theory II
PHY487H1 Condensed Matter Physics
PHY489H1 Introduction to High Energy Physics
PHY491H1 Current Interpretations of Quantum Mechanics
PHY492H1 Advanced Atmospheric Physics
PSCD50H3 Advanced Topics in Quantum Mechanics
and
0.5 credit from the following:
PHYD01H3 Research Project in Physics and Astrophysics
PHYD72H3 Supervised Reading in Physics and Astrophysics
and
[0.5 credit from a course in AST or PHY at the C-, D-, 300-, or 400-level] or [PSCD02H3 Current Questions in Mathematics and Science]

Note: To satisfy prerequisite requirements of upper level Computer Science Courses, students planning to take such courses should take CSCA08H3, rather than CSCA20H3, which is otherwise preferred for this program.

New:

Program Requirements:
The Program requires 13.5 credits as follows:

First Year
PHYA10H3 Physics I for the Physical Sciences
PHYA21H3 Physics II for the Physical Sciences
[MATA30H3 Calculus I for Physical Sciences or MATA31H3 Calculus I for Mathematical Sciences]
[MATA22H3 Linear Algebra I for Mathematical Sciences or MATA23H3 Linear Algebra I]
[MATA36H3 Calculus II for Physical Sciences or MATA37H3 Calculus II for Mathematical Sciences]
*[CSCA08H3 Introduction to Computer Science *or* CSCA20H3 Introduction to Programming]
*The preferred and recommended course for this program is CSCA20H3. However, students planning to take upper-level Computer Science courses should take CSCA08H3 instead.

Second Year
ASTB23H3 Astrophysics of Stars, Galaxies and the Universe
PHYB10H3 Intermediate Physics Laboratory I
PHYB56H3 Introduction to Quantum Physics
PHYB21H3 Electricity and Magnetism
PHYB52H3 Thermal Physics
PHYB54H3 Mechanics: From Oscillations to Chaos
MATB41H3 Techniques of the Calculus of Several Variables I
MATB42H3 Techniques of the Calculus of Several Variables II
MATB44H3 Differential Equations I

Third Year
PHYC50H3 Electromagnetic Theory
PHYC56H3 Quantum Mechanics I
PHYC11H3 Intermediate Physics Laboratory II
PHYC54H3 Classical Mechanics
PHYB57H3 Introduction to Scientific Computing
MATC34H3 Complex Variables
MATC46H3 Differential Equations II

Fourth Year
1.5 credit from the following:
ASTC25H3 Astrophysics of Planetary Systems
PHYC14H3 Introduction to Atmospheric Physics
PHYD26H3 Planetary Geophysics
PHYD27H3 Physics of Climate Modeling
PHYD28H3 Introduction to Magnetohydrodynamics for Astrophysics and Geophysics
PHYD37H3 Introduction to Fluid Mechanics
PHYD38H3 Introduction to Nonlinear Systems and Chaos
PHYD57H3 Advanced Computational Methods in Physics
PHY452H1 Basic Statistical Mechanics
PHY456H1 Quantum Mechanics II
PHY483H1 Relativity Theory I
PHY484H1 Relativity Theory II

PHY487H1 Condensed Matter Physics
PHY489H1 Introduction to High Energy Physics
PHY491H1 Current Interpretations of Quantum Mechanics
PHY492H1 Advanced Atmospheric Physics
PSCD50H3 Advanced Topics in Quantum Mechanics
and
0.5 credit from the following:
PHYD01H3 Research Project in Physics and Astrophysics
**PHYD02Y3 Extended Research Project in Physics and Astrophysics
PHYD72H3 Supervised Reading in Physics and Astrophysics
and
[0.5 credit from a course in AST or PHY at the C-, D-, 300-, or 400-level] or [PSCD02H3 Current Questions in Mathematics and Science]

**A maximum of 0.5 credit from PHYD02Y3 will count against this requirement. The remaining 0.5 credit can be used to satisfy degree-level requirements.

Description of Proposed Changes:
1. First Year Tweaked the language for the CSCA08H3 note. Moved the additional note to from the bottom to the right at the end of this program requirement.
2. Fourth Year: Added new PHYD02Y3 to section 2 as an optional course and added a note important note about this course.

Rationale:
1. The original language used to substitute, as per Calendar language and protocol, providing students with the option or is more clear. The note was misplaced at the bottom, moving this to the relevant area provides more clarity.
2. PHYD02Y3 is a new course that will provide students more flexibility to complete this program requirement. the note ensures students understand how many credits can be used toward the fourth year section 2 program requirement

Impact: None

Consultations: DCC Approval: October 12th 2022

Resource Implications: None.

11 Course Changes

CHMB20H3: Chemical Thermodynamics and Elementary Kinetics

Prerequisites:

Previous: [CHMA11H3 or CHMA12H3] and [MATA35H3 or MATA36H3] and PHYA10H3

New: [CHMA11H3 or CHMA12H3] and [MATA35H3 or MATA36H3 or MATA37H3] and [PHYA10H3 or PHYA11H3]

Rationale:
1. The prerequisite for this course has changed to provide students with more flexibility to complete the A-level PHY requirement.
2. The note section has been updated to provide students with important prerequisite course selection information

Consultation: DCC Approval: October 12th 2022.

Resources: None

CHMB23H3: Introduction to Chemical Thermodynamics and Kinetics: Theory and Practice

Prerequisites:

Previous: [CHMA11H3 or CHMA12H3] and [MATA35H3 or MATA36H3] and PHYA10H3

New: [CHMA11H3 or CHMA12H3] and [MATA35H3 or MATA36H3 or MATA37H3] and [PHYA10H3 or PHYA11H3]

Rationale: The prerequisite for this course has added PHYA11H3 to formalize what already is a common practice in the department. This will also provide students with additional flexibility to enroll in this course. Also, adding MATA37H3 ensures consistency with the shared course CHMB20H3.

Consultation: DCC Approval: October 12th 2022.

Resources: None.

CHMC21H3: Topics in Biophysical Chemistry

Prerequisites:

Previous: [CHMB20H3 or CHMB23H3] and CHMB21H3 and MATB41H3 and PHYA21H3

New: CHMB21H3

Rationale: The course prerequisites have been revised to remove redundancy from the prerequisite statement, and to only the course required is listed.

Consultation: DCC Approval: November 2022 consultations.

Resources: None.

CHMC42H3: Organic Synthesis

Description:

Previous: Principles of synthesis organic and functional group transformations; compound stereo-chemistry, spectroscopy and structure elucidation. Offered in even-numbered years alternating with CHMC41H3.
This course includes a four hour laboratory every week.

New: Principles of synthesis organic and functional group transformations; compound stereochemistry, spectroscopy and structure elucidation. This course includes a four hour laboratory every week.

Rationale: The course description has been revised to better reflect the course content.

Consultation: DCC Approval: November 2022

Resources: None.

CHMD89H3: Introduction to Green Chemistry

Prerequisites:

Previous: CHMC41H3 or CHMC42H3 or CHMC47H3]

New: [CHMC42H3 or CHMC47H3]

Rationale: The course prerequisite changes are made to remove CHMC41H3 since it is being changed to a D-level course and no longer serves as a prerequisite.

Consultation: DCC Approval: January 2023

Resources: None.

CHMD90Y3: Directed Research

Rationale: The course description has been revised to remove CHMC41H3 since this course is being changed to a D-level course and is not longer necessary to be listed

Consultation: DCC Approval: January 2023

Resources: None.

CHMD91H3: Directed Research

Rationale: The course description has removed CHMC41H3 since this course is going to be a D-level course and is no longer necessary to be listed.

Consultation: DCC Approval: January 2023

Resources: None.

CHMD92H3: Advanced Chemistry Laboratory Course

Enrolment Limits:

Previous: 10

New:

Prerequisites:

Previous: One of CHMC41H3 or CHMC42H3 or CHMC31Y3

New: CHMC42H3 or CHMC31Y3

Rationale:

1. The course prerequisite changes are made to remove CHMC41H3 since it is being changed to a D-level course and no longer serves as a prerequisite.
2. Enrolment limits are being removed as there are no longer necessary

Consultation: DCC Approval: January 2023

Resources: None

EESC34H3: Sustainability in Practice

Description:

Previous: This course is intended for students who would like to apply theoretical principles of environmental sustainability learned in other courses to real world problems. Students will identify a problem of interest related either to campus sustainability, a local NGO, or municipal, provincial, or federal government. Class meetings will consist of group discussions investigating key issues, potential solutions, and logistical matters to be considered for implementation of proposed solutions. Students who choose campus issues will also have the potential to actually implement their solutions. Grades will be based on participation in class discussions, as well as a final report and presentation.
Same as ESTC34H3

New: This course is intended for students who would like to apply theoretical principles of environmental sustainability learned in other courses to real-world problems. Students will identify a problem of interest related either to campus sustainability, a local NGO, or municipal, provincial, or federal government. Class meetings will consist of group discussions investigating key issues, potential solutions, and logistical matters to be considered for the implementation of proposed solutions. Students who choose campus issues will also have the potential to actually implement their solutions. Grades will be based on participation in class discussions, as well as a final report and presentation.

Same as ESTC34H3

Enrolment Limits:

Previous: 20

New:

Prerequisites:

Previous: EESA06H3 and an additional 9.5 credits

New: Any additional 9.5 credits

Rationale:

1. The course prerequisites are being changed to give students more flexibility to complete the UTSC Sustainability Certificate.
2. The course exclusions have been removed as they are no longer necessary

Consultation: DCC Approval:: October 12th, 2022

Resources: None.

ESTB02H3: Whose Land? Indigenous-Canada-Land Relations

Prerequisites:

Previous: 4.0 credits, including at least 0.5 credit in ANT, CIT, GGR, HLT, IDS, POL or SOC

New: 4.0 credits, including at least 0.5 credit in ANT, CIT, EST, GGR, HLT, IDS, POL or SOC

Rationale: The prerequisites for this course are being revised to provide EST with more enrolment flexibility.

Consultation:
Consultation with Human Geography and Global Development Studies, October 6th 2022.
DCC Approval: October 12th 2022.

Resources: None.

ESTC34H3: Sustainability in Practice

Description:

Previous: This course is intended for students who would like to apply theoretical principles of environmental sustainability learned in other courses to real world problems. Students will identify a problem of interest related either to campus sustainability, a local NGO, or municipal, provincial, or federal government. Class meetings will consist of group discussions investigating key issues, potential solutions, and logistical matters to be considered for implementation of proposed solutions. Students who choose campus issues will also have the potential to actually implement their solutions. Grades will be based on participation in class discussions, as well as a final report and presentation.
Same as EESC34H3

New: This course is intended for students who would like to apply theoretical principles of environmental sustainability learned in other courses to real world problems. Students will identify a problem of interest related either to campus sustainability, a local NGO, or municipal, provincial, or federal government. Class meetings will consist of group discussions investigating key issues, potential solutions, and logistical matters to be considered for the implementation of proposed solutions. Students who choose campus issues will also have the potential to actually implement their solutions. Grades will be based on participation in class discussions, as well as a final report and presentation.

Same as EESC34H3

Prerequisites:

Previous: EESA06H3 and an additional 9.5 credits

New: Any 9.5 credits

Rationale:
1. The course prerequisites are being changed to give students more flexibility to complete the UTSC Sustainability Certificate.
2. The course exclusions have been removed as they are no longer necessary

Consultation: DCC approval: October 12th, 2022

Resources: None.

Psychology (UTSC), Department of

13 Minor Program Mod Expedited Reviews

SCMAJ1160M: MAJOR PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Completion Requirements:

Previous:

Program Requirements

The program requires 7.0 credits, of which at least 2.0 credits must be at the C- or D-level:

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.0 credit):
[PSYB70H3 Methods in Psychological Science or (PSYB01H3) Psychological Research Laboratory *or* (PSYB04H3) Foundations in Psychological Research]
PSYC37H3 Psychological Assessment

3. Statistical Methods (0.5 credit):
PSYB07H3 Data Analysis in Psychology
STAB22H3 Statistics I
STAB23H3 Introduction to Statistics for the Social Sciences

4. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

5. Psychosocial and Psychobiological Breadth (1.5 credits):
Students are required to take 1.0 credit from one group and 0.5 credit from the other group:

Psycho-Social Grouping:

[PSYB38H3 *or* (PSYB45H3) Introduction to Behaviour Modification]
PSYC18H3 The Psychology of Emotion
[PSYC30H3 or (PSYC35H3) Advanced Personality Psychology]
PSYC34H3 Happiness and Meaning
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping:
[PSYB55H3 Introduction to Cognitive Neuroscience *or* (PSYB65H3) Human Brain and Behaviour]
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC31H3 Clinical Neuropsychology
PSYC33H3 Neuropsychological Rehabilitation
PSYC38H3 Adult Psychopathology
PSYC62H3 Drugs and the Brain

6. Seminar in Psychology at the D-level (0.5 credits)

7. Additional credits in Psychology (1.5 credits)
Supervised study [PSYC90H3 or PSYC93H3] or thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

New:

Program Requirements

The program requires 7.0 credits, of which at least 2.0 credits must be at the C- or D-level:

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.0 credit):
[PSYB70H3 Methods in Psychological Science or (PSYB01H3) Psychological Research Laboratory *or* (PSYB04H3) Foundations in Psychological Research]
PSYC37H3 Psychological Assessment

3. Statistical Methods (0.5 credit):
PSYB07H3 Data Analysis in Psychology
STAB22H3 Statistics I
STAB23H3 Introduction to Statistics for the Social Sciences

4. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

5. Psychosocial and Psychobiological Breadth (1.5 credits):
Students are required to take 1.0 credit from one group and 0.5 credit from the other group:

Psycho-Social Grouping:
[PSYB38H3 *or* (PSYB45H3) Introduction to Behaviour Modification]
PSYC15H3 Foundations in Community Psychology
PSYC18H3 The Psychology of Emotion
[PSYC30H3 or (PSYC35H3) Advanced Personality Psychology]
PSYC34H3 Happiness and Meaning
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping:
[PSYB55H3 Introduction to Cognitive Neuroscience *or* (PSYB65H3) Human Brain and Behaviour]
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC31H3 Clinical Neuropsychology
PSYC33H3 Neuropsychological Rehabilitation
PSYC38H3 Adult Psychopathology
PSYC62H3 Drugs and the Brain

6. Seminar in Psychology at the D-level (0.5 credits)
All PSY D-level courses are considered "seminars", with the exception of PSYD98Y3.

7. Additional credits in Psychology (1.5 credits)

Supervised study [PSYC90H3 or PSYC93H3] or thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
(d.) either (1) a final grade of 67% or higher in both of PSYA01H3 and PSYA02H3, or (2) a final grade of 60% or higher in both of PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in two B-level psychology courses.

Application for admission will be made to the Office of the Registrar through ACORN, in April/May and July/August.

New:

Enrolment Requirements

Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
(d.) either (1) a final grade of 67% or higher in both of PSYA01H3 and PSYA02H3, or (2) a final grade of 60% or higher in both of PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in two B-level psychology courses.

Application for admission will be made to the Office of the Registrar through ACORN, during the Limited Program application periods. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Description of Proposed Changes:
Minor adjustments to program requirements to provide clarity on requirements. PSYC15 added to Psycho-Social grouping.

Rationale:
Admission requirements: The months listed as program application periods were not correct, so we changed this to generic language, since the Registrar's Office sets the application dates each year. Link to the Registrar's Office website provided so students know where to look for information about limited program applications.

Program requirements:
- New course PSYC15 added to Psycho-Social grouping
- Clarity provided about what constitutes a "seminar".

Impact:
Students have provided with an additional course option to complete their program, which offers additional flexibility. The rest of the changes simply provided clarity on requirements, so no impact is expected.

Consultations:
DCC approved on Oct 13, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCMAJ1472: MAJOR PROGRAM IN NEUROSCIENCE (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
Students must complete a total of 8.5 credits.

1. Scientific Foundations (3.0 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
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.5 credits)
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
[PSYB55H3 Introduction to Cognitive Neuroscience or (PSYB65H3) Human Brain and Behaviour]
PSYB70H3 Methods in Psychological Science
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]

3. Advanced Foundations (1.5 credits)
at least 1.0 credit must be taken from:
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization and Physiology of the Brain

the remaining 0.5 credit should be taken from the following:
BIOC14H3 Genes, Environment and Behaviour
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC62H3 Drugs and the Brain

4. Capstone Course (0.5 credit)
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience*
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience
PSYD66H3 Current Topics in Human Brain and Behaviour

*Note: NROD08H3 has a calculus prerequisite that is not part of this program. Students interested in this course should plan accordingly.

New:

Program Requirements
Students must complete a total of 8.5 credits.

1. Scientific Foundations (3.0 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 or CHMA12H3 Advanced General Chemistry]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.5 credits)
BIOB10H3 Cell Biology
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
[PSYB55H3 Introduction to Cognitive Neuroscience or (PSYB65H3) Human Brain and Behaviour]
PSYB70H3 Methods in Psychological Science
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]

3. Advanced Foundations (1.5 credits)

at least 1.0 credit must be taken from:
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization and Physiology of the Brain

the remaining 0.5 credit should be taken from the following:
BIOC14H3 Genes, Environment and Behaviour
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC62H3 Drugs and the Brain

4. Capstone Course (0.5 credit)
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience*
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience
PSYD62H3 Neuroscience of Pleasure and Reward
PSYD66H3 Current Topics in Human Brain and Behaviour

*Note: NROD08H3 has a calculus prerequisite that is not part of this program. Students interested in this course should plan accordingly.

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the program is limited. Students may apply after completing a minimum of 4.0 credits including: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, PSYA01H3, and PSYA02H3. Admission to this program requires a CGPA of 2.0 or higher. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July.

New:

Enrolment Requirements

Enrolment in the program is limited. Students may apply after completing a minimum of 4.0 credits including: BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], PSYA01H3, and PSYA02H3. Admission to this program requires a CGPA of 2.0 or higher. Application for admission will be made to the Office of the Registrar through ACORN, during the Limited Program application periods. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Description of Proposed Changes:
Language around application procedure updated; CHMA12 added as alternative to CHMA11; New course PSYD62 added as capstone option

Rationale:
Admission requirements: The months listed as program application periods were removed, in consistency with our Psychology programs and other limited enrollment programs in the Calendar that do not mention the application periods. Link to the Registrar's Office website provided so students know where to look for information about limited program applications.

CHMA12H3 is new a course from the Chemistry department which is a more advanced version of CHMA11H3. The chemistry department allows CHMA12 as a substitue for CHMA11, so we are doing the same, as per the advice from their department.

New course PSYD62 -- Neuroscience of Pleasure and Reward -- has been added as capstone option.

Impact:
None

Consultations:
Chemistry Department - Sept. 12, 2022

DCC approval - Oct 13, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCMAJ1160: MAJOR PROGRAM IN PSYCHOLOGY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements

The Program requires completion of 7.0 credits, of which at least 2.0 credits must be at the C- or D-level:

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (0.5 credit):
[PSYB70H3 Methods in Psychological Science or (PSYB01H3) Psychological Research Laboratory or (PSYB04H3) Foundations in Psychological Research]

3. Statistical Methods (0.5 credit):
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I or STAB23H3 Introduction to Statistics for the Social Sciences]

4. Breadth in Psychology at the B-level and C-level (2.5 credits)
Students are required to take 1.5 credits from one of the groups and 1.0 credit from the other group:
a. Social and Developmental (courses listed in the 10- and 20-series)
b. Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

5. Seminar in Psychology at the D-level (0.5 credit)
Certain D-level NRO courses may be used to fulfill this requirement with departmental approval.

6. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] or thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

New:

Program Requirements

The Program requires completion of 7.0 credits, of which at least 2.0 credits must be at the C- or D-level:

1. Introduction to Psychology (1.0 credit):
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (0.5 credit):
[PSYB70H3 Methods in Psychological Science or (PSYB01H3) Psychological Research Laboratory or (PSYB04H3) Foundations in Psychological Research]

3. Statistical Methods (0.5 credit):
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I or STAB23H3 Introduction to Statistics for the Social Sciences]

4. Breadth in Psychology at the B-level and C-level (2.5 credits)
Students are required to take 1.5 credits from one of the groups and 1.0 credit from the other group:
a. Social and Developmental (courses listed in the 10- and 20-series)
b. Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

5. Seminar in Psychology at the D-level (0.5 credit)
All PSY D-level courses are considered "seminars", with the exception of PSYD98Y3.

6. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] or thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 UTSC credits, including 1.0 credit in Psychology, and
(d.) either (1) a final grade of 67% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 60% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in two B-level psychology courses.

Application for admission will be made to the Office of the Registrar through ACORN, in April/May and July/August.

New:

Enrolment Requirements

Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
(d.) either (1) a final grade of 67% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 60% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in two B-level psychology courses.

Application for admission will be made to the Office of the Registrar through ACORN, during the Limited Program application periods. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Description of Proposed Changes:
Minor adjustments to program requirements to provide clarity. Retired courses removed as options.

Rationale:
Admission requirements: The months listed as program application periods were not correct, so we changed this to generic language, since the Registrar's Office sets the application dates each year. . Link to the Registrar's Office website provided so students know where to look for information about limited program applications. Removed the word "UTSC" from "UTSC credits" since this is redundant, and also misleading since transfer credits are acceptable here.

Program requirements: Clarity provided about what consitutes a "seminar". NRO courses are not accepted toward PSY programs, so this note was removed.

Impact:
These changes provide clarity to students on their program requirements. There are no impacts on other units/divisions.

Consultations:
DCC approved Sept 15, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1160N: SPECIALIST (CO-OPERATIVE) PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Completion Requirements:

Previous:

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

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (2.0 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC37H3 Psychological Assessment

PSYC70H3 Advanced Research Methods Laboratory
PSYC73H3 Clinical Neuropsychology Laboratory

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

7. Psychosocial and Psychobiological Breadth (3.0 credits)
Students are required to take 2.0 credits from one group and 1.0 credit from the other group:

Psycho-Social Grouping
[PSYB38H3 *or* (PSYB45H3) Introduction to Behaviour Modification]
PSYC18H3 The Psychology of Emotion
[PSYC30H3 or (PSYC35H3) Advanced Personality Psychology]
PSYC34H3 Happiness and Meaning
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping
[PSYB55H3 Introduction to Cognitive Neuroscience *or* (PSYB65H3) Human Brain and Behaviour]
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC33H3 Neuropsychological Rehabilitation
PSYC38H3 Adult Psychopathology
PSYC62H3 Drugs and the Brain

8. Seminars in Psychology at the D-level (1.0 credit):
0.5 credit must come from the PSY D30-series:
PSYD30H3 Current topics in Personality Psychology
PSYD31H3 Cultural-Clinical Psychology
PSYD32H3 Personality Disorders
PSYD33H3 Current Topics in Clinical Psychology
PSYD35H3 Clinical Psychopharmacology
PSYD39H3 Cognitive Behavioural Therapy

9. An additional credit in Psychology (0.5 credit)

10. 2.0 credits from the following courses:
BIOC70H3 An Introduction to Bias in the Sciences
HLTB40H3 Health Policy and Health Systems
HLTB41H3 Introduction to the Social Determinants of Mental Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB50H3 Introduction to Health Humanities
(HLTC05H3) Society, Health and Illness
HLTC22H3 Health, Aging, and the Life Cycle
HLTC23H3 Issues in Child Health and Development
HLTC42H3 Emerging Health Issues and Policy Needs
HLTC49H3 Indigenous Health
IDSB04H3 Introduction to International/Global Health
IDSC11H3 Issues in Global and International Health
LINB20H3 Sociolinguistics
PHLA11H3 Introduction to Ethics
PHLB07H3 Ethics
PHLB09H3 Biomedical Ethics
PHLB81H3 Theories of Mind
PHLC07H3 Death and Dying
PHLC10H3 Topics in Bioethics
SOCB22H3 Sociology of Gender
SOCB49H3 Sociology of Family
SOCB50H3 Deviance and Normality I
SOCC49H3 Indigenous Health

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must

be enrolled in the Specialist Co-op Program in Mental Health Studies and have completed at least 10.0 credits, including [PSYB70H3 or (PSYB01H3)], PSYB07H3, PSYB32H3, [PSYB55H3 or (PSYB65H3)], PSYC02H3, [PSYC08H3 or PSYC09H3], and [PSYC73H3 or (PSYC32H3)].
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

New:

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

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (2.0 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC37H3 Psychological Assessment
PSYC70H3 Advanced Research Methods Laboratory
PSYC73H3 Clinical Neuropsychology Laboratory

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

7. PSYB55H3 Introduction to Cognitive Neuroscience (0.5 credit)

8. Psychosocial and Psychobiological Breadth (2.5 credits)
Students are required to take 1.5 credits from one group and 1.0 credit from the other group:

Psycho-Social Grouping
[PSYB38H3 *or* (PSYB45H3) Introduction to Behaviour Modification]
PSYC15H3 Foundations in Community Psychology
PSYC18H3 The Psychology of Emotion
[PSYC30H3 or (PSYC35H3) Advanced Personality Psychology]
PSYC34H3 Happiness and Meaning
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC31H3 Clinical Neuropsychology
PSYC33H3 Neuropsychological Rehabilitation
PSYC38H3 Adult Psychopathology
PSYC62H3 Drugs and the Brain

9. Seminars in Psychology at the D-level (1.0 credit):
All PSY D-level courses are considered "seminars", with the exception of PSYD98Y3. Students must take 1.0 credit of seminars in Psychology at the D-level, of which 0.5 credit must come from the PSY D30-series:
PSYD30H3 Current topics in Personality Psychology
PSYD31H3 Cultural-Clinical Psychology
PSYD32H3 Personality Disorders
PSYD33H3 Current Topics in Clinical Psychology
PSYD35H3 Clinical Psychopharmacology
PSYD37H3 Social Context of Mental Health and Illness
PSYD39H3 Cognitive Behavioural Therapy

10. An additional credit in Psychology (0.5 credit)

11. 2.0 credits from the following courses:
BIOC70H3 An Introduction to Bias in the Sciences
HLTA91H3 A Healthy Campus for Students: Prioritizing Mental Health
HLTB40H3 Health Policy and Health Systems
HLTB41H3 Introduction to the Social Determinants of Mental Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB50H3 Introduction to Health Humanities
HLTC22H3 Health, Aging, and the Life Cycle
HLTC23H3 Issues in Child Health and Development
HLTC42H3 Emerging Health Issues and Policy Needs
HLTC49H3 Indigenous Health
IDSB04H3 Introduction to International/Global Health
IDSC11H3 Issues in Global and International Health
LINB20H3 Sociolinguistics
PHLA11H3 Introduction to Ethics
PHLB07H3 Ethics
PHLB09H3 Biomedical Ethics
PHLB81H3 Theories of Mind
PHLC07H3 Death and Dying
PHLC10H3 Topics in Bioethics
SOCB22H3 Sociology of Gender
SOCB49H3 Sociology of Family
SOCB50H3 Deviance and Normality I
SOCC49H3 Indigenous Health

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist Co-op Program in Mental Health Studies and have completed at least 10.0 credits, including [PSYB70H3 or (PSYB01H3)], PSYB07H3, PSYB32H3, PSYB55H3, PSYC02H3, [PSYC08H3 or PSYC09H3], and PSYC73H3.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year

to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

Enrolment Requirements:

Previous:

Enrolment Requirements
Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 UTSC credits, including 1.0 credit in Psychology, and
(d.) a cumulative GPA of at least 2.75, and
(e.) either: (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.
Students who have completed 10.0 credits or more, are not eligible to apply to the program.
Students currently enrolled in the Specialist Co-op Program in Mental Health Studies who have completed 10.0 credits or more, are not eligible to transfer to the Specialist Co-op Program in Psychology or vice-versa.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualifications noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

New:

Enrolment Requirements
Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
(d.) a cumulative GPA of at least 2.75, and
(e.) either: (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.
Students who have completed 10.0 credits or more, are not eligible to apply to the program.
Students currently enrolled in the Specialist Co-op Program in Mental Health Studies who have completed 10.0 credits or more, are not eligible to transfer to the Specialist Co-op Program in Psychology or vice-versa.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualifications noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

Description of Proposed Changes:
Minor adjustments to program requirements to resolve inconsistencies and provide clarity on requirements. A few additional courses have been added to groupings to provide students with more options toward program completion. Retired courses removed as options.

Rationale:
Admission requirements: Removed the word "UTSC" from "UTSC credits" since this is redundant, and also misleading since transfer credits are acceptable here.

Program requirements:
-PSYB55 made an explicit requirement instead of an option in Psycho-Biological group. This course is a work-term requirement for Mental Health Co-op students, so it was misleading to present it as an option in a list of courses, rather than an explicitly required course.
-Psycho-social group: New course PSYC15 added as an option toward this requirement.
-Psycho-bio group: PSYC31 added as option for this group. This is consistent with the non-coop version of the program, and seems to have been left out in error.
-Clarity provided about what consitutes a "seminar".
-PSYD37 added as a 30-series option, as this seems to have been left out in error.
-Req11: HLTA91H3 added as an option toward this requirement. Its content about creating a healthy campus community focused on mental health and self care practices makes it appropriate for inclusion in this requirement, which is meant to give students a broader understanding of health, science, and society; Retired (HLTC05) course removed, as it has not been offered in at least four years.
-Retired (PSYB65) and (PSYC32) removed from work-term requirement section, in consistency with the program requirements, which no longer list this course as an option.

Impact:
Students have provided with few additional course options to complete their program, which offers additional flexibility. The rest of the changes simply provided clarity on requirements, so no impact is expected.

Consultations:
Health studies consulted in August 2022 re: adding HLTA91.
DCC approved adding HLTA91, HLTC05, PSYB55, PSYC31, PSYD37, admissions/seminar/work term wording- Sept 15, 2022
DCC approved adding PSYC15 - Oct 13, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1272C: SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE - Cellular/Molecular Stream (SCIENCE)

Completion Requirements:

Previous:

Completion Requirements
The program requires students to complete all of the course requirements of the Specialist Program in Neuroscience, including the requirements of one of the three streams. In addition:

- Co-op students in the Systems/Behavioural and Cellular/Molecular streams must also complete BIOB12H3;
- Co-op students in the Cellular/Molecular stream cannot use BIOB12H3 to satisfy the 0.5 credit in Laboratory Courses (see component 7 of the program requirements); instead, students must complete one of NROC60H3, NROC90H3, or NROC93H3.

Co-op Work Term Requirements
Students must satisfactorily complete a total of 8 months in Co-op work terms, which may occur as a single 8-month placement, or two 4-month placements.

To be eligible for their first work term, students must:
- *Be enrolled in the Specialist Co-op Program in Neuroscience;*
- *Have successfully completed at least 10.0 credits, including the following:* BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3, and the following additional courses:

- in the Systems/Behavioural and Cellular/Molecular streams: BIOB11H3, BIOB12H3, CHMB41H3 (Note: CHMB42H3 is recommended, but not required);
- in the Cognitive stream: PSYC02H3, PSYC70H3, and [PSYC08H3 or PSYC09H3];

- *Have achieved a CGPA of 2.5 or higher.*

Students are cautioned that thoughtful course planning is a must to ensure they remain on track to go out on work-term in a timely fashion; students are strongly encouraged to use the course planning resources available through the Arts & Science Co-op Office.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

New:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students will complete a further 7.0 credits, specific to their stream, for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 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 or CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (7.0 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming

[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.5 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB12H3 Cell and Molecular Biology Laboratory
NROC61H3 Learning and Motivation
and two of the following:
NROC34H3 Neuroethology
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
CHMB41H3 Organic Chemistry I
and one of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory (recommended)
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (7.0 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.5 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB12H3 Cell and Molecular Biology Laboratory
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:

BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC60H3 Cellular Neuroscience Laboratory (recommended)
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology
PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience

NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD62H3 Neuroscience of Pleasure and Reward
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

Co-op Work Term Requirements
Students must satisfactorily complete a total of 8 months in Co-op work terms, which may occur as a single 8-month placement, or two 4-month placements.

To be eligible for their first work term, students must:
- *Be enrolled in the Specialist Co-op Program in Neuroscience;*
- *Have successfully completed at least 10.0 credits, including the following:* BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3, and the following additional courses:

- in the Systems/Behavioural and Cellular/Molecular streams: BIOB11H3, BIOB12H3, CHMB41H3 (Note: CHMB42H3 is recommended, but not required);
- in the Cognitive stream: PSYC02H3, PSYC70H3, and [PSYC08H3 or PSYC09H3];

- *Have achieved a CGPA of 2.5 or higher.*

Students are cautioned that thoughtful course planning is a must to ensure they remain on track to go out on work-term in a timely fashion; students are strongly encouraged to use the course planning resources available through the Arts & Science Co-op Office.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

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- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualifications noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

New:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
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***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Current Co-op Students:
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Description of Proposed Changes:
CHMA12 added as alternative to CHMA11; New courses PSYC54 and PSYD62 added as program options; NROC60 added as a lab option for S/B stream; NROC63 added as lab option for C/M stream; NROC61 moved from option to mandatory requirement for S/B stream; Program options spelled out explicitly instead of referring to the non-coop versions of the program,

Rationale:
CHMA12H3 is new a course from the Chemistry department which is a more advanced version of CHMA11H3. The chemistry department allows CHMA12 as a substitute for CHMA11, so we are doing the same, as per the advice from their department.

New courses PSYC54 (Auditory Cognitive Neuroscience) and PSYD62 (Neuroscience of Pleasure and Reward) have been added as program options.

Recent changes to policy regarding animal use in teaching has prompted changes in NROC63 and NROC60, in terms of course descriptions, prerequisites, and their role in the program. NROC60 has been added as a lab option for Systems/Behavioural students, and NROC63 has been added as a lab option for Cellular/Molecular students. This increases flexibility in the program and provides students with animal and non-animal options for completing their lab course requirement.

NROC61 was moved from an option to a mandatory requirement for the Systems/Behavioural stream. The content of this course is particularly relevant to Systems/Behavioural students, and moving it to a mandatory requirement resolves the issue of NROC61 being a hidden requirement, due to its status as a co-req of NROC63, the recommend lab course for the Systems/Behavioural stream.

We have laid out the program requirements explicitly for each stream, because simply referencing the non-co-op version of the program was

causing confusion, since the requirements are not identical when it comes to course BIOB12 and CHMB41. We these courses explicit requirements, and cleared up confusion regarding CHMB41 in the Co-op Systems/Behavioural stream, where it was originally presented as only an option, when it is in fact a requirement (due to it being a work term prerequisite.)

Impact:
Students will find the program requirements easier to follow. More flexibility provided by adding additional course options.

Consultations:
CHMA12, change: Chemistry Department - Sept. 12, 2022; DCC approval - Oct 13, 2022
PSYC54, PSYD62, and admissions changes: DCC approval - Oct 13, 2022
NROC60, NROC61, NROC63 changes: DCC approval - Feb 27, 2023

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1172C: SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE - Cognitive Stream (SCIENCE)

Completion Requirements:

Previous:

Completion Requirements
The program requires students to complete all of the course requirements of the Specialist Program in Neuroscience, including the requirements of one of the three streams. In addition:

- Co-op students in the Systems/Behavioural and Cellular/Molecular streams must also complete BIOB12H3;
- Co-op students in the Cellular/Molecular stream cannot use BIOB12H3 to satisfy the 0.5 credit in Laboratory Courses (see component 7 of the program requirements); instead, students must complete one of NROC60H3, NROC90H3, or NROC93H3.

Co-op Work Term Requirements
Students must satisfactorily complete a total of 8 months in Co-op work terms, which may occur as a single 8-month placement, or two 4-month placements.

To be eligible for their first work term, students must:
- *Be enrolled in the Specialist Co-op Program in Neuroscience;*
- *Have successfully completed at least 10.0 credits, including the following:* BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3, and the following additional courses:

- in the Systems/Behavioural and Cellular/Molecular streams: BIOB11H3, BIOB12H3, CHMB41H3 (Note: CHMB42H3 is recommended, but not required);
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Students are cautioned that thoughtful course planning is a must to ensure they remain on track to go out on work-term in a timely fashion; students are strongly encouraged to use the course planning resources available through the Arts & Science Co-op Office.
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3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

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New:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students will complete a further 7.0 credits, specific to their stream, for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 credits):
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BIOA02H3 Life on Earth: Form, Function and Interactions
CHMA10H3 Introductory Chemistry I: Structure and Bonding
[CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms or CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (7.0 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.5 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB12H3 Cell and Molecular Biology Laboratory
NROC61H3 Learning and Motivation
and two of the following:
NROC34H3 Neuroethology
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
CHMB41H3 Organic Chemistry I
and one of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception

PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory (recommended)
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (7.0 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.5 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB12H3 Cell and Molecular Biology Laboratory
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:

NROC60H3 Cellular Neuroscience Laboratory (recommended)
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology
PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD62H3 Neuroscience of Pleasure and Reward
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

Co-op Work Term Requirements
Students must satisfactorily complete a total of 8 months in Co-op work terms, which may occur as a single 8-month placement, or two 4-month placements.

To be eligible for their first work term, students must:
- *Be enrolled in the Specialist Co-op Program in Neuroscience;*
- *Have successfully completed at least 10.0 credits, including the following:* BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3, and the following additional courses:

- in the Systems/Behavioural and Cellular/Molecular streams: BIOB11H3, BIOB12H3, CHMB41H3 (Note: CHMB42H3 is recommended, but not required);
- in the Cognitive stream: PSYC02H3, PSYC70H3, and [PSYC08H3 or PSYC09H3];

- *Have achieved a CGPA of 2.5 or higher.*

Students are cautioned that thoughtful course planning is a must to ensure they remain on track to go out on work-term in a timely fashion; students are strongly encouraged to use the course planning resources available through the Arts & Science Co-op Office.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualifications noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

New:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I

CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualifications noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

Description of Proposed Changes:
CHMA12 added as alternative to CHMA11; New courses PSYC54 and PSYD62 added as program options; NROC60 added as a lab option for S/B stream; NROC63 added as lab option for C/M stream; NROC61 moved from option to mandatory requirement for S/B stream; Program options spelled out explicitly instead of referring to the non-coop versions of the program,

Rationale:
CHMA12H3 is new a course from the Chemistry department which is a more advanced version of CHMA11H3. The chemistry department allows CHMA12 as a substitute for CHMA11, so we are doing the same, as per the advice from their department.

New courses PSYC54 (Auditory Cognitive Neuroscience) and PSYD62 (Neuroscience of Pleasure and Reward) have been added as program options.

Recent changes to policy regarding animal use in teaching has prompted changes in NROC63 and NROC60, in terms of course descriptions, prerequisites, and their role in the program. NROC60 has been added as a lab option for Systems/Behavioural students, and NROC63 has been added as a lab option for Cellular/Molecular students. This increases flexibility in the program and provides students with animal and non-animal options for completing their lab course requirement.

NROC61 was moved from an option to a mandatory requirement for the Systems/Behavioural stream. The content of this course is particularly relevant to Systems/Behavioural students, and moving it to a mandatory requirement resolves the issue of NROC61 being a hidden requirement, due to its status as a co-req of NROC63, the recommend lab course for the Systems/Behavioural stream.

We have laid out the program requirements explicitly for each stream, because simply referencing the non-co-op version of the program was causing confusion, since the requirements are not identical when it comes to course BIOB12 and CHMB41. We these courses explicit requirements, and cleared up confusion regarding CHMB41 in the Co-op Systems/Behavioural stream, where it was originally presented as only an option, when it is in fact a requirement (due to it being a work term prerequisite.)

Impact:
Students will find the program requirements easier to follow. More flexibility provided by adding additional course options.

Consultations:
CHMA12, change: Chemistry Department - Sept. 12, 2022; DCC approval - Oct 13, 2022
PSYC54, PSYD62, and admissions changes: DCC approval - Oct 13, 2022
NROC60, NROC61, NROC63 changes: DCC approval - Feb 27, 2023

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1372C: SPECIALIST (CO-OPERATIVE) PROGRAM IN NEUROSCIENCE - Systems/Behavioural Stream (SCIENCE)

Completion Requirements:

Previous:

Completion Requirements

The program requires students to complete all of the course requirements of the Specialist Program in Neuroscience, including the requirements of one of the three streams. In addition:

- Co-op students in the Systems/Behavioural and Cellular/Molecular streams must also complete BIOB12H3;
- Co-op students in the Cellular/Molecular stream cannot use BIOB12H3 to satisfy the 0.5 credit in Laboratory Courses (see component 7 of the program requirements); instead, students must complete one of NROC60H3, NROC90H3, or NROC93H3.

Co-op Work Term Requirements
Students must satisfactorily complete a total of 8 months in Co-op work terms, which may occur as a single 8-month placement, or two 4-month placements.

To be eligible for their first work term, students must:
- *Be enrolled in the Specialist Co-op Program in Neuroscience;*
- *Have successfully completed at least 10.0 credits, including the following:* BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3, and the following additional courses:

- in the Systems/Behavioural and Cellular/Molecular streams: BIOB11H3, BIOB12H3, CHMB41H3 (Note: CHMB42H3 is recommended, but not required);
- in the Cognitive stream: PSYC02H3, PSYC70H3, and [PSYC08H3 or PSYC09H3];

- *Have achieved a CGPA of 2.5 or higher.*

Students are cautioned that thoughtful course planning is a must to ensure they remain on track to go out on work-term in a timely fashion; students are strongly encouraged to use the course planning resources available through the Arts & Science Co-op Office.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

New:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students will complete a further 7.0 credits, specific to their stream, for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 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 or CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (7.0 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.5 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB12H3 Cell and Molecular Biology Laboratory
NROC61H3 Learning and Motivation
and two of the following:
NROC34H3 Neuroethology
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
CHMB41H3 Organic Chemistry I
and one of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory (recommended)
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits

NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (7.0 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.5 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
BIOB12H3 Cell and Molecular Biology Laboratory
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC60H3 Cellular Neuroscience Laboratory (recommended)
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology

PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD62H3 Neuroscience of Pleasure and Reward
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

Co-op Work Term Requirements
Students must satisfactorily complete a total of 8 months in Co-op work terms, which may occur as a single 8-month placement, or two 4-month placements.

To be eligible for their first work term, students must:
- *Be enrolled in the Specialist Co-op Program in Neuroscience;*
- *Have successfully completed at least 10.0 credits, including the following:* BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3, and the following additional courses:

- in the Systems/Behavioural and Cellular/Molecular streams: BIOB11H3, BIOB12H3, CHMB41H3 (Note: CHMB42H3 is recommended, but not required);
- in the Cognitive stream: PSYC02H3, PSYC70H3, and [PSYC08H3 or PSYC09H3];

- *Have achieved a CGPA of 2.5 or higher.*

Students are cautioned that thoughtful course planning is a must to ensure they remain on track to go out on work-term in a timely fashion; students are strongly encouraged to use the course planning resources available through the Arts & Science Co-op Office.
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No

additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**

(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualification noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

New:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualifications noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

Description of Proposed Changes:
CHMA12 added as alternative to CHMA11; New courses PSYC54 and PSYD62 added as program options; NROC60 added as a lab option for S/B stream; NROC63 added as lab option for C/M stream; NROC61 moved from option to mandatory requirement for S/B stream; Program options spelled out explicitly instead of referring to the non-coop versions of the program,

Rationale:
CHMA12H3 is new a course from the Chemistry department which is a more advanced version of CHMA11H3. The chemistry department allows CHMA12 as a substitute for CHMA11, so we are doing the same, as per the advice from their department.

New courses PSYC54 (Auditory Cognitive Neuroscience) and PSYD62 (Neuroscience of Pleasure and Reward) have been added as program options.

Recent changes to policy regarding animal use in teaching has prompted changes in NROC63 and NROC60, in terms of course descriptions, prerequisites, and their role in the program. NROC60 has been added as a lab option for Systems/Behavioural students, and NROC63 has been added as a lab option for Cellular/Molecular students. This increases flexibility in the program and provides students with animal and non-animal options for completing their lab course requirement.

NROC61 was moved from an option to a mandatory requirement for the Systems/Behavioural stream. The content of this course is particularly relevant to Systems/Behavioural students, and moving it to a mandatory requirement resolves the issue of NROC61 being a hidden requirement, due to its status as a co-req of NROC63, the recommend lab course for the Systems/Behavioural stream.

We have laid out the program requirements explicitly for each stream, because simply referencing the non-co-op version of the program was causing confusion, since the requirements are not identical when it comes to course BIOB12 and CHMB41. We these courses explicit requirements, and cleared up confusion regarding CHMB41 in the Co-op Systems/Behavioural stream, where it was originally presented as only an option, when it is in fact a requirement (due to it being a work term prerequisite.)

Impact:
Students will find the program requirements easier to follow. More flexibility provided by adding additional course options.

Consultations:
CHMA12, change: Chemistry Department - Sept. 12, 2022; DCC approval - Oct 13, 2022
PSYC54, PSYD62, and admissions changes: DCC approval - Oct 13, 2022
NROC60, NROC61, NROC63 changes: DCC approval - Feb 27, 2023

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1160A: SPECIALIST (CO-OPERATIVE) PROGRAM IN PSYCHOLOGY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
The program requires students to complete a total of 12.5 credits, including at least 4.0 credits at the C- or D-level, of which at 1.0 credit must be at the D-level:

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC70H3 Advanced Research Methods Laboratory
and
0.5 credit from among the following:
PSYC06H3 Psychophysiology Laboratory
[PSYC71H3 *or* (PSYC11H3) Social Psychology Laboratory]
[PSYC72H3 *or* (PSYC26H3) Developmental Psychology Laboratory]
[PSYC74H3 *or* (PSYC05H3) Human Movement Laboratory]
PSYC75H3 Cognitive Psychology Laboratory
[PSYC76H3 *or* (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (5.0 credits)
Students are required to take 3.0 credits at the B-level or C-level from one of the two content groups listed below and 2.0 credits from the other group:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit)
Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

8. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] *or* thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist Co-op Program in Psychology and have completed at least 10.0 credits, including [PSYB70H3 or (PSYB01H3)], PSYB07H3, PSYC02H3 and [PSYC08H3 or PSYC09H3].
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

New:

Program Requirements
The program requires students to complete a total of 12.5 credits, including at least 4.0 credits at the C- or D-level, of which at 1.0 credit must be at the D-level:

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC70H3 Advanced Research Methods Laboratory
and
0.5 credit from among the following:

(PSYC06H3 Psychophysiology Laboratory)
[PSYC71H3 *or* (PSYC11H3) Social Psychology Laboratory]
[PSYC72H3 *or* (PSYC26H3) Developmental Psychology Laboratory]
[PSYC74H3 *or* (PSYC05H3) Human Movement Laboratory]
PSYC75H3 Cognitive Psychology Laboratory
[PSYC76H3 *or* (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (5.0 credits)
Students are required to take 3.0 credits at the B-level or C-level from one of the two content groups listed below and 2.0 credits from the other group:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit)
All PSY D-level courses are considered "seminars", with the exception of PSYD98Y3. Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

8. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] *or* thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

Co-op Work Term Requirements
Students must satisfactorily complete two Co-op work terms, each of four-months duration. To be eligible for their first work term, students must be enrolled in the Specialist Co-op Program in Psychology and have completed at least 10.0 credits, including [PSYB70H3 or (PSYB01H3)], PSYB07H3, PSYC02H3 and [PSYC08H3 or PSYC09H3].
In addition to their academic program requirements, Co-op students complete up to four Co-op specific courses. These courses are designed to prepare students for their job search and work term experience, and to maximize the benefits of their Co-op work terms. They cover a variety of topics intended to assist students in developing the skills and tools required to secure work terms that are appropriate to their program of study, and to perform professionally in the workplace. These courses must be completed in sequence, and are taken in addition to a full course load. They are recorded on transcripts as credit/no credit (CR/NCR) and are considered to be additive credit to the 20.0 required degree credits. No additional course fee is assessed as registration is included in the Co-op Program fee.

Co-op Preparation Course Requirements:

1. COPB50H3/(COPD01H3) – Foundations for Success in Arts & Science Co-op
- Students entering Co-op from outside of UTSC (high school or other postsecondary) will complete this course in Fall or Winter of their first year at UTSC. Enrolment in each section is based on admission category: Typically, students in Computer Science, Mathematics and Statistics enroll in the Fall semester while all other Arts & Science Co-op admission categories enroll in the Winter semester however this may vary year to year.
- Current UTSC students entering Co-op in April/May will complete this course in the Summer semester.
- Current UTSC students entering Co-op in July/August will complete this course in the Fall semester.

2. COPB51H3/(COPD03H3) – Preparing to Compete for your Co-op Work Term
- This course will be completed eight months in advance of the first scheduled work term.

3. COPB52H3/(COPD11H3) – Managing your Work Term Search & Transition to Work
- This course will be completed four months in advance of the first work scheduled work term.

4. COPC98H3/(COPD12H3) – Integrating Your Work Term Experience Part I
- This course will be completed four months in advance of the second scheduled work term.

5. COPC99H3/(COPD13H3) – Integrating Your Work Term Experience Part II
- This course will be completed four months in advance of the third scheduled work term (for programs that require the completion of 3 work terms and/or four months in advance of any additional work terms that have been approved by the Arts and Science Co-op Office.

Students must be available for work terms in each of the Fall, Winter and Summer semesters and must complete at least one of their required work terms in either a Fall or Winter semester. This, in turn, requires that students take courses during at least one Summer semester.

For information on fees, status in Co-op programs, and certification of completion of Co-op programs, see the 6B.5 Co-operative Programs section or the Arts and Science Co-op section in the UTSC *Calendar*.

Enrolment Requirements:

Previous:

Enrolment Requirements
Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 UTSC credits, including 1.0 credit in Psychology, and
(d.) a cumulative GPA of at least 2.75, and
(e.) either (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.
Students who have completed 10.0 credits or more, are not eligible to apply to the program.
Students currently enrolled in the Specialist Co-op Program in Mental Health Studies who have completed 10.0 credits or more, are not eligible to transfer to the Specialist Co-op Program in Psychology or vice-versa.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualifications noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

New:

Enrolment Requirements
Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
(d.) a cumulative GPA of at least 2.75, and
(e.) either (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Current Co-op Students:
Students admitted to a Co-op Degree POSt in their first year of study must request a Co-op Subject POSt on ACORN upon completion of 4.0 credits and must meet the minimum qualifications for entry as noted above.
Students who have completed 10.0 credits or more, are not eligible to apply to the program.
Students currently enrolled in the Specialist Co-op Program in Mental Health Studies who have completed 10.0 credits or more, are not eligible to transfer to the Specialist Co-op Program in Psychology or vice-versa.

Prospective Co-op Students:
Prospective Co-op students (i.e., those not yet admitted to a Co-op Degree POSt) must submit a program request on ACORN, and meet the minimum qualifications noted above. Deadlines follow the Limited Enrolment Program Application Deadlines set by the Office of the Registrar each year. Failure to submit the program request on ACORN will result in that student's application not being considered.

Description of Proposed Changes:
Minor adjustments to provide clarity on admission/seminar requirements; PSYC06 noted as retired.

Rationale:
Admission requirements: Removed the word "UTSC" from "UTSC credits" since this is redundant, and also misleading since transfer credits are acceptable here.

Program requirements: PSYC06 noted as retired. Clarity provided about what consitutes a "seminar".

Impact:
These changes provide clarity to students on their program requirements. There are no impacts on other units/divisions.

Consultations:
DCC approved changes Sept 15, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1160M: SPECIALIST PROGRAM IN MENTAL HEALTH STUDIES (SCIENCE)

Completion Requirements:

Previous:

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

1. Introductory Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credit)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC37H3 Psychological Assessment
PSYC70H3 Advanced Research Methods Laboratory

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

7. Psychosocial and Psychobiological Breadth (3.0 credits)
Students are required to take 2.0 credits from one group and 1.0 credit from the other group:

Psycho-Social Grouping
[PSYB38H3 or (PSYB45H3) Introduction to Behaviour Modification]
PSYC18H3 The Psychology of Emotion
[PSYC30H3 or (PSYC35H3) Advanced Personality Psychology]
PSYC34H3 Happiness and Meaning
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping
[PSYB55H3 Introduction to Cognitive Neuroscience *or* (PSYB65H3) Human Brain and Behaviour]
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC31H3 Clinical Neuropsychology
PSYC33H3 Neuropsychological Rehabilitation
PSYC38H3 Adult Psychopathology
PSYC62H3 Drugs and the Brain

8. Seminars in Psychology at the D-level (1.0 credit):
0.5 credit must come from the PSY D30-series:
PSYD30H3 Current topics in Personality Psychology
PSYD31H3 Cultural-Clinical Psychology
PSYD32H3 Personality Disorders
PSYD33H3 Current Topics in Clinical Psychology
PSYD35H3 Clinical Psychopharmacology
PSYD39H3 Cognitive Behavioural Therapy

9. Additional credits in Psychology (1.0 credits)

10. 2.0 credits from the following courses:
BIOC70H3 An Introduction to Bias in the Sciences
HLTB40H3 Health Policy and Health Systems
HLTB41H3 Introduction to the Social Determinants of Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB50H3 Introduction to Health Humanities
(HLTC05H3) Society, Health and Illness
HLTC22H3 Health, Aging, and the Life Cycle
HLTC23H3 Issues in Child Health and Development
HLTC42H3 Emerging Health Issues and Policy Needs
HLTC49H3 Indigenous Health

IDSB04H3 Introduction to International/Global Health
IDSC11H3 Issues in Global and International Health
LINB20H3 Sociolinguistics
PHLA11H3 Introduction to Ethics
PHLB07H3 Ethics
PHLB09H3 Biomedical Ethics
PHLB81H3 Theories of Mind
PHLC07H3 Death and Dying
PHLC10H3 Topics in Bioethics
SOCB22H3 Sociology of Gender
SOCB49H3 Sociology of Family
SOCB50H3 Deviance and Normality I
SOCC49H3 Indigenous Health

New:

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

1. Introductory Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credit)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC37H3 Psychological Assessment
PSYC70H3 Advanced Research Methods Laboratory

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Personality and Clinical Psychology (1.0 credit):
PSYB30H3 Introduction to Personality
PSYB32H3 Introduction to Clinical Psychology

7. Psychosocial and Psychobiological Breadth (3.0 credits)
Students are required to take 2.0 credits from one group and 1.0 credit from the other group:

Psycho-Social Grouping
[PSYB38H3 or (PSYB45H3) Introduction to Behaviour Modification]
PSYC15H3 Foundations in Community Psychology
PSYC18H3 The Psychology of Emotion
[PSYC30H3 or (PSYC35H3) Advanced Personality Psychology]
PSYC34H3 Happiness and Meaning
PSYC36H3 Psychotherapy
PSYC39H3 Psychology and the Law

Psycho-Biological Grouping
[PSYB55H3 Introduction to Cognitive Neuroscience *or* (PSYB65H3) Human Brain and Behaviour]
PSYB64H3 Introduction to Behavioural Neuroscience
PSYC31H3 Clinical Neuropsychology
PSYC33H3 Neuropsychological Rehabilitation
PSYC38H3 Adult Psychopathology
PSYC62H3 Drugs and the Brain

8. Seminars in Psychology at the D-level (1.0 credit):
All PSY D-level courses are considered "seminars", with the exception of PSYD98Y3. Students must take 1.0 credit of seminars in Psychology at the D-level, of which 0.5 credit must come from the PSY D30-series:
PSYD30H3 Current topics in Personality Psychology
PSYD31H3 Cultural-Clinical Psychology
PSYD32H3 Personality Disorders
PSYD33H3 Current Topics in Clinical Psychology
PSYD35H3 Clinical Psychopharmacology
PSYD37H3 Social Context of Mental Health and Illness

PSYD39H3 Cognitive Behavioural Therapy

9. Additional credits in Psychology (1.0 credits)

10. 2.0 credits from the following courses:
BIOC70H3 An Introduction to Bias in the Sciences
HLTA91H3 A Healthy Campus for Students: Prioritizing Mental Health
HLTB40H3 Health Policy and Health Systems
HLTB41H3 Introduction to the Social Determinants of Health
HLTB42H3 Perspectives of Culture, Illness and Healing
HLTB50H3 Introduction to Health Humanities
HLTC22H3 Health, Aging, and the Life Cycle
HLTC23H3 Issues in Child Health and Development
HLTC42H3 Emerging Health Issues and Policy Needs
HLTC49H3 Indigenous Health
IDSB04H3 Introduction to International/Global Health
IDSC11H3 Issues in Global and International Health
LINB20H3 Sociolinguistics
PHLA11H3 Introduction to Ethics
PHLB07H3 Ethics
PHLB09H3 Biomedical Ethics
PHLB81H3 Theories of Mind
PHLC07H3 Death and Dying
PHLC10H3 Topics in Bioethics
SOCB22H3 Sociology of Gender
SOCB49H3 Sociology of Family
SOCB50H3 Deviance and Normality I
SOCC49H3 Indigenous Health

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 UTSC credits, including 1.0 credit in Psychology, and
(d.) either (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Application for admission will be made to the Office of the Registrar through ACORN, in April/May and July/August.

New:

Enrolment Requirements

Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
(d.) either (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Application for admission will be made to the Office of the Registrar through ACORN, during the Limited Program application periods. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Description of Proposed Changes:
Minor adjustments to program requirements to provide clarity on requirements. A few additional courses have been added to groupings to provide students with more options toward program completion. Retired courses removed as options.

Rationale:
Admission requirements: Removed the word "UTSC" from "UTSC credits" since this is redundant, and also misleading since transfer credits are acceptable here. The months listed as program application periods were not correct, so we changed this to generic language, since the Registrar's

Office sets the application dates each year. Link to the Registrar's Office website provided so students know where to look for information about limited program applications.

Program requirements:
-Psycho-social group: New course PSYC15 added as an option toward this requirement.
-Clarity provided about what constitutes a "seminar".
-PSYD37 added as a 30-series option, as this seems to have been left out in error.
-Req10: HLTA91H3 added as an option toward this requirement. Its content about creating a healthy campus community focused on mental health and self care practices makes it appropriate for inclusion in this requirement, which is meant to give students a broader understanding of health, science, and society; Retired (HLTC05) course removed, as it has not been offered in five years.

Impact:
Students have provided with few additional course options to complete their program, which offers additional flexibility. The rest of the changes simply provided clarity on requirements, so no impact is expected.

Consultations:
Health studies consulted in August 2022 re: adding HLTA91.
DCC approved adding HLTA91, HLTC05, PSYD37, admission/seminar wording - Sept 15, 2022
DCC approved adding PSYC15 - Oct 13, 2022

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1272: SPECIALIST PROGRAM IN NEUROSCIENCE - Cellular/Molecular Stream (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students completing the Systems/Behavioural and Cellular/Molecular streams will complete a further 6.5 credits for a total of 13.0 credits; students completing the Cognitive stream will complete a further 7.0 credits for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 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
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
and three of the following:
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:

BIOC14H3 Genes, Environment and Behaviour
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
CHMB41H3* Organic Chemistry I
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception

PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
BIOB12H3 Cell and Molecular Biology Laboratory
NROC60H3 Cellular Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology
PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition

PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

New:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students completing the Systems/Behavioural and Cellular/Molecular streams will complete a further 6.5 credits for a total of 13.0 credits; students completing the Cognitive stream will complete a further 7.0 credits for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 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 or CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
NROC61H3 Learning and Motivation
and two of the following:
NROC34H3 Neuroethology
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
CHMB41H3* Organic Chemistry I
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):

one of the following:
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory (recommended)
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
BIOB12H3 Cell and Molecular Biology Laboratory
NROC60H3 Cellular Neuroscience Laboratory (recommended)
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis

BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology
PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD62H3 Neuroscience of Pleasure and Reward
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Students who do not meet the Stage 1 enrolment requirements can still apply to the Specialist program at Stage 2. This pathway requires students to complete a minimum of 10.0 credits, including all of the core courses of the program (Scientific Foundations, Neuroscience Foundations, and Stream Foundations). In addition to completing the course requirements, students must also have achieved a CGPA of 2.5 or higher across all courses, and a CGPA of 2.75 or higher across the Neuroscience Foundations and Stream Foundations courses. Application for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July. Admission through this route is dependent upon the availability of space in the program.

New:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Students who do not meet the Stage 1 enrolment requirements can still apply to the Specialist program at Stage 2. This pathway requires students to complete a minimum of 10.0 credits, including all of the core courses of the program (Scientific Foundations, Neuroscience Foundations, and Stream Foundations). In addition to completing the course requirements, students must also have achieved a CGPA of 2.5 or higher across all courses, and a CGPA of 2.75 or higher across the Neuroscience Foundations and Stream Foundations courses. Application for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July. Admission through this route is dependent upon the availability of space in the program.

Description of Proposed Changes:
CHMA12 added as alternative to CHMA11; New courses PSYC54 and PSYD62 added as program options; NROC60 added as a lab option for S/B stream; NROC63 added as lab option for C/M stream; NROC61 moved from option to mandatory requirement for S/B stream; Language around application procedure updated;

Rationale:
CHMA12H3 is new a course from the Chemistry department which is a more advanced version of CHMA11H3. The chemistry department allows CHMA12 as a substitute for CHMA11, so we are doing the same, as per the advice from their department.

New courses PSYC54 (Auditory Cognitive Neuroscience) and PSYD62 (Neuroscience of Pleasure and Reward) have been added as program options.

Recent changes to policy regarding animal use in teaching has prompted changes in NROC63 and NROC60, in terms of course descriptions, prerequisites, and their role in the program. NROC60 has been added as a lab option for Systems/Behavioural students, and NROC63 has been added as a lab option for Cellular/Molecular students. This increases flexibility in the program and provides students with animal and non-animal options for completing their lab course requirement.

NROC61 was moved from an option to a mandatory requirement for the Systems/Behavioural stream. The content of this course is particularly relevant to Systems/Behavioural students, and moving it to a mandatory requirement resolves the issue of NROC61 being a hidden requirement, due to its status as a co-req of NROC63, the recommend lab course for the Systems/Behavioural stream.

Admission requirements: The months listed as program application periods were removed, in consistency with our Psychology programs and other limited enrollment programs in the Calendar that do not mention the application periods. The link to the Registrar's Office website is provided so students know where to look for information about limited program applications.

Impact:
More flexibility provided by adding additional course options.

Consultations:
CHMA12, change: Chemistry Department - Sept. 12, 2022; DCC approval - Oct 13, 2022
PSYC54, PSYD62, and admissions changes: DCC approval - Oct 13, 2022
NROC60, NROC61, NROC63 changes: DCC approval - Feb 27, 2023

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1172: SPECIALIST PROGRAM IN NEUROSCIENCE - Cognitive Stream (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students completing the

Systems/Behavioural and Cellular/Molecular streams will complete a further 6.5 credits for a total of 13.0 credits; students completing the Cognitive stream will complete a further 7.0 credits for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 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
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
and three of the following:
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
CHMB41H3* Organic Chemistry I
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience

NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
BIOB12H3 Cell and Molecular Biology Laboratory
NROC60H3 Cellular Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology

PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

New:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students completing the Systems/Behavioural and Cellular/Molecular streams will complete a further 6.5 credits for a total of 13.0 credits; students completing the Cognitive stream will complete a further 7.0 credits for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 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 or CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]

PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
NROC61H3 Learning and Motivation
and two of the following:
NROC34H3 Neuroethology
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
CHMB41H3* Organic Chemistry I
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory (recommended)
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)

BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
BIOB12H3 Cell and Molecular Biology Laboratory
NROC60H3 Cellular Neuroscience Laboratory (recommended)
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology
PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making

PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD62H3 Neuroscience of Pleasure and Reward
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**

(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Students who do not meet the Stage 1 enrolment requirements can still apply to the Specialist program at Stage 2. This pathway requires students to complete a minimum of 10.0 credits, including all of the core courses of the program (Scientific Foundations, Neuroscience Foundations, and Stream Foundations). In addition to completing the course requirements, students must also have achieved a CGPA of 2.5 or higher across all courses, and a CGPA of 2.75 or higher across the Neuroscience Foundations and Stream Foundations courses. Application for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July. Admission through this route is dependent upon the availability of space in the program.

New:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

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PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
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3. Have achieved a CGPA of 2.5 or higher.

Students who do not meet the Stage 1 enrolment requirements can still apply to the Specialist program at Stage 2. This pathway requires students to complete a minimum of 10.0 credits, including all of the core courses of the program (Scientific Foundations, Neuroscience Foundations, and Stream Foundations). In addition to completing the course requirements, students must also have achieved a CGPA of 2.5 or higher across all courses, and a CGPA of 2.75 or higher across the Neuroscience Foundations and Stream Foundations courses. Application for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July. Admission through this route is dependent upon the availability of space in the program.

Description of Proposed Changes:
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Rationale:
CHMA12H3 is new a course from the Chemistry department which is a more advanced version of CHMA11H3. The chemistry department allows CHMA12 as a substitute for CHMA11, so we are doing the same, as per the advice from their department.

New courses PSYC54 (Auditory Cognitive Neuroscience) and PSYD62 (Neuroscience of Pleasure and Reward) have been added as program options.

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Impact:
More flexibility provided by adding additional course options.

Consultations:
CHMA12, change: Chemistry Department - Sept. 12, 2022; DCC approval - Oct 13, 2022
PSYC54, PSYD62, and admissions changes: DCC approval - Oct 13, 2022
NROC60, NROC61, NROC63 changes: DCC approval - Feb 27, 2023

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1372: SPECIALIST PROGRAM IN NEUROSCIENCE - Systems/Behavioural Stream (SCIENCE)

Completion Requirements:

Previous:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students completing the Systems/Behavioural and Cellular/Molecular streams will complete a further 6.5 credits for a total of 13.0 credits; students completing the Cognitive stream will complete a further 7.0 credits for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 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
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes

and three of the following:
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
CHMB41H3* Organic Chemistry I
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems

PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
BIOB12H3 Cell and Molecular Biology Laboratory
NROC60H3 Cellular Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology
PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory

PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

New:

Program Requirements
This program requires students to complete 6.5 credits in core courses that are common to all streams. Students completing the Systems/Behavioural and Cellular/Molecular streams will complete a further 6.5 credits for a total of 13.0 credits; students completing the Cognitive stream will complete a further 7.0 credits for a total of 13.5 credits.

CORE (6.5 credits)

1. Scientific Foundations (3.5 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 or CHMA12H3 Advanced General Chemistry]
[MATA29H3 Calculus I for the Life Sciences *or* MATA30H3 Calculus I for Physical Sciences]
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Neuroscience Foundations (3.0 credits):
BIOB10H3 Cell Biology
NROB60H3 Neuroanatomy Laboratory
NROB61H3 Neurophysiology
PSYB55H3 Introduction to Cognitive Neuroscience
[PSYB07H3 Data Analysis in Psychology or STAB22H3 Statistics I]
PSYB70H3 Methods in Psychological Science

A. Systems/Behavioural Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
NROC61H3 Learning and Motivation
and two of the following:
NROC34H3 Neuroethology
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC14H3 Genes, Environment and Behaviour
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
NROC36H3 Molecular Neuroscience
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
CHMB41H3* Organic Chemistry I
NROC36H3* Molecular Neuroscience
NROC69H3* Synaptic Organization & Physiology of the Brain
PSYB51H3 Introduction to Perception

PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete components A4 or A5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
NROC60H3 Cellular Neuroscience Laboratory
NROC63H3 Behavioural Neuroscience Laboratory (recommended)
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC74H3 Human Movement Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD45H3 Animal Communication
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

B. Cellular/Molecular Stream (6.5 credits)

3. Quantitative Logic and Reasoning (1.0 credit):
PSYC08H3 Advanced Data Analysis in Psychology
and one of the following:
CSCA20H3 Introduction to Programming
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]

4. Advanced Foundations (2.0 credits)
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC36H3 Molecular Neuroscience
NROC69H3 Synaptic Organization & Physiology of the Brain

5. Stream-specific electives (1.0 credit)
two of the following:
BIOC12H3 Biochemistry I: Proteins & Enzymes
BIOC13H3 Biochemistry II: Bioenergetics & Metabolism
BIOC14H3 Genes, Environment and Behaviour
CHMB42H3 Organic Chemistry II
NROC34H3 Neuroethology
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
PSYC62H3 Drugs and the Brain

6. Breadth in Neuroscience (1.0 credit):
two of the following:
NROC34H3* Neuroethology
NROC61H3* Learning and Motivation
NROC64H3* Sensorimotor Systems
PSYB51H3 Introduction to Perception
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language
**only if not used to complete component B5 of the requirements*

7. Laboratory Course (0.5 credit):
one of the following:
BIOB12H3 Cell and Molecular Biology Laboratory

NROC60H3 Cellular Neuroscience Laboratory (recommended)
NROC63H3 Behavioural Neuroscience Laboratory
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience

8. Capstone Courses (1.0 credit):
two of the following:
BIOD07H3 Advanced Topics and Methods in Neural Circuit Analysis
BIOD19H3 Epigenetics in Health and Disease
BIOD65H3 Pathologies of the Nervous System
NROD08H3/BIOD08H3 Theoretical Neuroscience
NROD60H3 Current Topics in Neuroscience
NROD61H3 Emotional Learning Circuits
NROD66H3 Drug Addiction
NROD67H3 Neuroscience of Aging
NROD98Y3 Thesis in Neuroscience*
PSYD66H3 Current Topics in Human Brain & Behaviour

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

C. Cognitive Stream (7.0 credits)

3. Quantitative and Methodological Skills (1.5 credits):
PSYC02H3 Scientific Communication in Psychology
PSYC70H3 Advanced Research Methods Laboratory
[PSYC08H3 Advanced Data Analysis in Psychology or PSYC09H3 Applied Multiple Regression in Psychology]

4. Advanced Programming (1.5 credits)
MATA23H3 Linear Algebra
[[CSCA08H3 Introduction to Computer Science I and CSCA48H3 Introduction to Computer Science II]* *or* [PSYB03H3 Introduction to Computers in Psychological Research and PSYC03H3 Introduction to Computers in Psychological Research: Advanced Topics]]
*Note: students are strongly advised to choose the [PSYB03H3 and PSYC03H3] pairing.

5. Advanced Foundations (1.5 credits)
PSYB51H3 Introduction to Perception
and two of the following:
PSYC51H3 Cognitive Neuroscience of Vision
PSYC52H3 Cognitive Neuroscience of Attention
PSYC54H3 Auditory Cognitive Neuroscience
PSYC57H3 Cognitive Neuroscience of Decision Making
PSYC59H3 Cognitive Neuroscience of Language

6. Breadth in Neuroscience (1.0 credit):
two of the following (at least 0.5 credit must be a C-level NRO course):
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CHMB41H3 Organic Chemistry I
NROC34H3 Neuroethology
NROC36H3 Molecular Neuroscience
NROC61H3 Learning and Motivation
NROC64H3 Sensorimotor Systems
NROC69H3 Synaptic Organization & Physiology of the Brain

7. Laboratory Course (0.5 credit):
one of the following:
NROC90H3 Supervised Study in Neuroscience
NROC93H3 Supervised Study in Neuroscience
PSYC75H3 Cognitive Psychology Laboratory
PSYC76H3 Brain Imaging Laboratory

8. Capstone Courses (1.0 credit):
two of the following:
PSYD17H3 Social Neuroscience
PSYD50H3 Current Topics in Memory and Cognition
PSYD51H3 Current Topics in Perception
PSYD54H3 Current Topics in Visual Recognition
PSYD55H3 Functional Magnetic Resonance Imaging Laboratory
PSYD62H3 Neuroscience of Pleasure and Reward
PSYD66H3 Current Topics in Human Brain & Behaviour
NROD98Y3 Thesis in Neuroscience*

*Note: only 0.5 credit of NROD98Y3 can be counted towards the Capstone course requirement

Enrolment Requirements:

Previous:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, CHMA11H3, [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN, in March/April and June/July. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Students who do not meet the Stage 1 enrolment requirements can still apply to the Specialist program at Stage 2. This pathway requires students to complete a minimum of 10.0 credits, including all of the core courses of the program (Scientific Foundations, Neuroscience Foundations, and Stream Foundations). In addition to completing the course requirements, students must also have achieved a CGPA of 2.5 or higher across all courses, and a CGPA of 2.75 or higher across the Neuroscience Foundations and Stream Foundations courses. Application for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July. Admission through this route is dependent upon the availability of space in the program.

New:

Enrolment Requirements

Enrolment in the Program is limited, and takes place in two stages.

Stage 1:

Students may apply to Stage 1 after successfully completing a minimum of 4.0 credits, including the Scientific Foundations courses: BIOA01H3, BIOA02H3, CHMA10H3, [CHMA11H3 or CHMA12H3], [MATA29H3 or MATA30H3], PSYA01H3, and PSYA02H3. Students must have a CGPA of 2.75 or higher to be admitted to the program. Application for admission will be made to the Office of the Registrar through ACORN. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Stage 2:

To complete the program, students must choose one of the three available streams. Students who have successfully met the enrolment

requirements of their chosen stream will be admitted to the Specialist Neuroscience Stage 2 category. Applications for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July.

Before applying to their chosen stream, students must:

1. Complete a minimum of 10.0 credits including all Stage 1 Scientific Foundations course requirements, as well as the Neuroscience Foundations courses which include BIOB10H3, NROB60H3, NROB61H3, [PSYB07H3 or STAB22H3], PSYB55H3, PSYB70H3;

2. Complete 1.0 credit in Stream Foundations courses from the following list*:
BIOB11H3 Molecular Aspects of Cellular and Genetic Processes
CSCA20H3 Introduction to Programming
CHMB41H3 Organic Chemistry I
CHMB42H3 Organic Chemistry II
MATA23H3 Linear Algebra
[PHYA10H3 Physics I for the Physical Sciences or PHYA11H3 Physics I for the Life Sciences]
PSYB51H3 Introduction to Perception
PSYC08H3 Advanced Data Analysis in Psychology
PSYC09H3 Applied Multiple Regression in Psychology

***Notes:**
(i) students are advised to exercise caution when selecting these courses since some can be applied to all three streams (BIOB11H3, CHMB41H3, PSYB51H3, PSYC08H3), but others can be applied to only one or two streams;
(ii) the Cognitive stream does not include a component called "Stream-specific electives"; students interested in this stream should select from the following: MATA23H3, BIOB11H3, CHMB41H3, PSYB51H3, [PSYC08H3 or PSYC09H3].

3. Have achieved a CGPA of 2.5 or higher.

Students who do not meet the Stage 1 enrolment requirements can still apply to the Specialist program at Stage 2. This pathway requires students to complete a minimum of 10.0 credits, including all of the core courses of the program (Scientific Foundations, Neuroscience Foundations, and Stream Foundations). In addition to completing the course requirements, students must also have achieved a CGPA of 2.5 or higher across all courses, and a CGPA of 2.75 or higher across the Neuroscience Foundations and Stream Foundations courses. Application for admission to a Stage 2 stream will be made to the Office of the Registrar through ACORN in March/April and June/July. Admission through this route is dependent upon the availability of space in the program.

Description of Proposed Changes:
CHMA12 added as alternative to CHMA11; New courses PSYC54 and PSYD62 added as program options; NROC60 added as a lab option for S/B stream; NROC63 added as lab option for C/M stream; NROC61 moved from option to mandatory requirement for S/B stream; Language around application procedure updated;

Rationale:
CHMA12H3 is new a course from the Chemistry department which is a more advanced version of CHMA11H3. The chemistry department allows CHMA12 as a substitute for CHMA11, so we are doing the same, as per the advice from their department.

New courses PSYC54 (Auditory Cognitive Neuroscience) and PSYD62 (Neuroscience of Pleasure and Reward) have been added as program options.

Recent changes to policy regarding animal use in teaching has prompted changes in NROC63 and NROC60, in terms of course descriptions, prerequisites, and their role in the program. NROC60 has been added as a lab option for Systems/Behavioural students, and NROC63 has been added as a lab option for Cellular/Molecular students. This increases flexibility in the program and provides students with animal and non-animal options for completing their lab course requirement.

NROC61 was moved from an option to a mandatory requirement for the Systems/Behavioural stream. The content of this course is particularly relevant to Systems/Behavioural students, and moving it to a mandatory requirement resolves the issue of NROC61 being a hidden requirement, due to its status as a co-req of NROC63, the recommend lab course for the Systems/Behavioural stream.

Admission requirements: The months listed as program application periods were removed, in consistency with our Psychology programs and other limited enrollment programs in the Calendar that do not mention the application periods. The link to the Registrar's Office website is provided so students know where to look for information about limited program applications.

Impact:
More flexibilty provided by adding additional course options.

Consultations:
CHMA12, change: Chemistry Department - Sept. 12, 2022; DCC approval - Oct 13, 2022
PSYC54, PSYD62, and admissions changes: DCC approval - Oct 13, 2022
NROC60, NROC61, NROC63 changes: DCC approval - Feb 27, 2023

Resource Implications:
None

Proposal Status:
Under Review

SCSPE1160: SPECIALIST PROGRAM IN PSYCHOLOGY (SCIENCE)

Completion Requirements:

Previous:

Program Requirements

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

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC70H3 Advanced Research Methods Laboratory
and
0.5 credit from among the following:
PSYC06H3 Psychophysiology Laboratory
[PSYC71H3 *or* (PSYC11H3) Social Psychology Laboratory]
[PSYC72H3 *or* (PSYC26H3) Developmental Psychology Laboratory]
[PSYC74H3 *or* (PSYC05H3) Human Movement Laboratory]
PSYC75H3 Cognitive Psychology Laboratory
[PSYC76H3 *or* (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (5.0 credits)
Students are required to take 3.0 credits at the B-level or C-level from one of the two content groups listed below and 2.0 credits from the other group:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit)
Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

8. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] *or* thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

New:

Program Requirements

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

1. Introduction to Psychology (1.0 credit)
PSYA01H3 Introduction to Biological and Cognitive Psychology
PSYA02H3 Introduction to Clinical, Developmental, Personality and Social Psychology

2. Laboratory Methods (1.5 credits)
[PSYB70H3 Methods in Psychological Science *or* (PSYB01H3) Psychological Research Laboratory]
PSYC70H3 Advanced Research Methods Laboratory
and
0.5 credit from among the following:
(PSYC06H3 Psychophysiology Laboratory)
[PSYC71H3 *or* (PSYC11H3) Social Psychology Laboratory]
[PSYC72H3 *or* (PSYC26H3) Developmental Psychology Laboratory]
[PSYC74H3 *or* (PSYC05H3) Human Movement Laboratory]
PSYC75H3 Cognitive Psychology Laboratory

[PSYC76H3 *or* (PSYC04H3) Brain Imaging Laboratory]

3. Statistical Methods (1.0 credit)
PSYB07H3 Data Analysis in Psychology
[PSYC08H3 Advanced Data Analysis in Psychology *or* PSYC09H3 Applied Multiple Regression in Psychology]

4. PSYC02H3 Scientific Communication in Psychology (0.5 credit)

5. PSYC85H3 History of Psychology (0.5 credit)

6. Breadth in Psychology at the B-level and C-level (5.0 credits)
Students are required to take 3.0 credits at the B-level or C-level from one of the two content groups listed below and 2.0 credits from the other group:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

7. Seminars in Psychology at the D-level (1.0 credit)
All PSY D-level courses are considered "seminars", with the exception of PSYD98Y3. Students must take 0.5 credit from each grouping below:
(a) Social and Developmental (courses listed in the 10- and 20-series)
(b) Perception, Cognition and Physiology (courses listed in the 50- and 60-series)

8. Additional credits in Psychology (2.0 credits)
Of the 2.0 credits, at least 1.0 credit must be at the C-level. Supervised study [PSYC90H3 or PSYC93H3] *or* thesis [PSYD98Y3] courses may be used to fulfill a maximum of 0.5 credit.

Enrolment Requirements:

Previous:

Enrolment Requirements
Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 UTSC credits, including 1.0 credit in Psychology, and
(d.) either (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Application for admission will be made to the Office of the Registrar through ACORN, in April/May and July/August.

New:

Enrolment Requirements
Enrolment in the Program is limited. Admission will require:
(a.) completion of any Grade 12 U/M high school math course or equivalent (or successful completion of the UTSC Online Mathematics Preparedness Course or equivalent), and
(b.) completion of Grade 12 U/M high school biology or equivalent (or BIOA11H3 or equivalent), and
(c.) completion of a minimum of 4.0 credits, including 1.0 credit in Psychology, and
(d.) either (1) a final grade of 75% or higher in both PSYA01H3 and PSYA02H3, or (2) a final grade of 64% or higher in both PSYA01H3 and PSYA02H3, and a final grade of 72% or higher in [PSYB70H3 or (PSYB01H3)] and [PSYB07H3 or equivalent].

Application for admission will be made to the Office of the Registrar through ACORN, during the Limited Program application periods. For more information on applying to limited enrolment programs, please visit the Office of the Registrar website.

Description of Proposed Changes:
Minor adjustments to provide clarity on admission/seminar requirements; PSYC06 noted as retired.

Rationale:
Admission requirements: Removed the word "UTSC" from "UTSC credits" since this is redundant, and also misleading since transfer credits are acceptable here. The months listed as program application periods were not correct, so we changed this to generic language, since the Registrar's Office sets the application dates each year. Link to the Registrar's Office website provided so students know where to look for information about limited program applications.

Program requirements: PSYC06 noted as retired. Clarity provided about what consitutes a "seminar".

Impact:
These changes provide clarity to students on their program requirements. There are no impacts on other units/divisions.

Consultations:

DCC approved changes Sept 15, 2022

Resource Implications:
None

Proposal Status:
Under Review

13 Course Modifications

NROB60H3: Neuroanatomy Laboratory

Prerequisites:

Previous:
BIOA01H3 and BIOA02H3 and CHMA10H3 and CHMA11H3 and PSYA01H3 and PSYA02H3; this course is restricted to students in the Specialist/Specialist Co-op and Major programs in Neuroscience

New:

BIOA01H3 and BIOA02H3 and CHMA10H3 and [CHMA11H3 or CHMA12H3] and PSYA01H3 and PSYA02H3

Rationale:
Prerequisites updated to reflect current practices. NROB60 is *not* restricted to students in Neuroscience programs, because students are often enrolling in this course before they have been accepted into their programs.

CHMA12H3 is new a course from the Chemistry department which is a more advanced version of CHMA11H3. The chemistry department allows CHMA12 as a substitute for CHMA11, so we are doing the same, as per the advice from their department.

Consultation:
Chemistry Department - Sept. 12, 2022
DCC approval - Sept. 15, 2022

Resources:
None
Budget Implications:

Proposal Status:
Under Review

NROB61H3: Neurophysiology

Prerequisites:

Previous:
NROB60H3; this course is restricted to students in the Specialist/Specialist Co-op and Major programs in Neuroscience

New:

BIOA01H3 and BIOA02H3 and CHMA10H3 and [CHMA11H3 or CHMA12H3] and PSYA01H3 and PSYA02H3

Corequisites:

Previous:

New:

NROB60H3

Rationale:
The department proposes to update the course prerequisites to reflect current practices.

NROB60 is *not* restricted to students in Neuroscience programs, because students are often enrolling in this course before they have been accepted into their programs. CHMA12H3 is a new course from the Chemistry department, which is a more advanced version of CHMA11H3. As the chemistry department allows CHMA12 as a substitute for CHMA11, we are doing the same as per the advice from their department.

Consultation:
Neuroscience faculty were consulted in Sept 2022. DCC approved on Oct 13 2022.

Resources:
None
Budget Implications:

Proposal Status:
Under Review

NROC90H3: Supervised Study in Neuroscience

Description:

Previous:

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over

2 consecutive terms. NROC90H and NROC93H3 provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report. Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and returned to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course, including the structure of the required log-book. Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Neuroscience faculty at UTSC then a secondary supervisor who is a member of the Neuroscience group at UTSC will be required.

New:

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms. NROC90H and NROC93H3 provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report. Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and returned to the Psychology Office. Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Neuroscience faculty at UTSC then a secondary supervisor who is a member of the Neuroscience group at UTSC will be required.

Prerequisites:

Previous:
BIOB10H3 and NROB60H3 and NROB61H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3] and [PSYB55H3 or (PSYB65H3)] and permission from the instructor.

New:

BIOB10H3 and NROB60H3 and NROB61H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3] and [PSYB55H3 or (PSYB65H3)] and permission of the proposed supervisor.

Rationale:
The department proposes to update the prerequisites and description in order to better reflect the course content and current supervisory practices.

Description: Updated to reflect current practices. The "outline of the schedule and general requirements" are already included in the permission form, and thus are not provided to students after they submit the form. There is no need to mention this in the course description.

Prerequisites: Changed "instructor" to "proposed supervisor" for clarity. There is no course instructor -- only the faculty supervisor, who must provide permission.

Consultation:
DCC approved Aug 25 2022

Resources:
None
Budget Implications:

Proposal Status:
Under Review

NROD98Y3: Thesis in Neuroscience

Description:

Previous:

This course offers the opportunity to engage in a year long research project under the supervision of an interested member of the faculty in Neuroscience. The project will culminate in a written report in the form of a thesis and a poster presentation. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigation. Students must first find a supervisor, which is usually confirmed before the start of the academic term in which the project will be initiated. Students will meet as a group with the coordinator as well as individually with their supervisor. Preference in this course is given to Specialists in Neuroscience with a cumulative GPA of 3.3 or higher. Students planning to pursue graduate studies are especially encouraged to enrol in the course. Students must obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and submitted to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course. Students seeking supervision off campus will need to arrange co supervision with a faculty member in Neuroscience at UTSC.

New:

This course offers the opportunity to engage in a year long research project under the supervision of an interested member of the faculty in Neuroscience. The project will culminate in a written report in the form of a thesis and a poster presentation. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigation. Students must first find a supervisor, which is usually confirmed before the start of the academic term in which the project will be initiated. Students will meet as a group with the coordinator as well as individually with their supervisor. Students planning to pursue

graduate studies are especially encouraged to enrol in the course. Students must obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and submitted to the Psychology Office. Students seeking supervision off campus will need to arrange co supervision with a faculty member in Neuroscience at UTSC.

Prerequisites:

Previous:
Satisfactory completion of 15.0 credits in any discipline, including [PSYB07H3 or STAB22H3] and [0.5 credit in a laboratory course from Psychology, Biology or Neuroscience] and consent of a faculty member in Psychology or Biology to serve as a research supervisor. Note: Preference will be given to students in a Specialist program in Neuroscience whose 15.0 credits include [PSYC08H3 or PSYC09H3] and who have a cGPA of at least 3.3.

New:

BIOB10H3 and NROB60H3 and NROB61H3 and [PSYB07H3 or STAB22H3] and PSYB55H3 and PSYB70H3 and [0.5 credits from the NRO C-level courses or PSY 50-series C-level courses] and [enrolment in the Specialist Co-op, Specialist, or Major Program in Neuroscience] and [GPA of 3.3 or higher over the last 5.0 credit equivalents completed] and permission of the proposed neuroscience faculty supervisor.

Corequisites:

Previous:

New:

[PSYC08H3 or PSYC09H3]

Exclusions:

Previous:
BIOD98Y3, PSYD98Y3, (BGYD98Y3), (BGYD99Y3), (BGYD01Y3), (BGYD02Y3)

New:

BIOD98Y3, BIOD99Y3, PSYD98Y3

Rationale:
The department proposes to revise the prerequisites for this course in order to ensure students are adequately prepared to conduct independent research at the D-level.

This change stems from a major overhaul of the NRO curriculum that took place two years ago. At the time, the NROD98 course prerequisites were not modified accordingly, and are now out of sync with the new program and with the requirements for other courses in our Departments. Most notably, the requirements to enroll in NROC90, the C-level supervised study, are now more stringent than those to enroll in the NROD98 Thesis course. The new prerequisites are also consistent with the PSYD98 thesis course. This proposed change brings this course in line with expectations for other courses in the department.

Consultation:
Initial consultation was undertaken with the Neuroscience faculty, as well as both the Departments of Psychology and Biology. All groups were in support of these changes. DCC approved the final changes on Oct 13, 2022

Resources:
None
Budget Implications:

Overlap with Existing Courses:
PSYD983 and BIOD98Y3 are existing exclusions for NROD98Y3, due to the significant overlap between the courses. Biology has since added a BIOD99Y3 course to the Calendar as well, which has also been added as an exclusion. Retired "BGY" courses have been deleted from the exclusions.

Proposal Status:
Under Review

PSYB07H3: Data Analysis in Psychology

Description:

Previous:

This course focuses on the fundamentals of the theory and the application of statistical procedures used in research in the field of psychology. Topics will range from descriptive statistics to simple tests of significance, such as Chi-Square, t-tests, and one-way Analysis-of-Variance. A working knowledge of algebra is assumed. Students in the Specialist programs in Psychology, Psycholinguistics or Neuroscience will be given priority for this course.

New:

This course focuses on the fundamentals of the theory and the application of statistical procedures used in research in the field of psychology. Topics will range from descriptive statistics to simple tests of significance, such as Chi-Square, t-tests, and one-way Analysis-of-Variance. A working knowledge of algebra is assumed.

Enrolment Limits:

Previous:

New:
Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology, Mental Health Studies, Neuroscience, and Paramedicine. Students in the Minor program in Psychology will be admitted if space permits.

Rationale:
The department proposes to update enrollment limits to reflect current practices.

PSYB07 is no longer part of the psycholinguistics program and the course has not been open to these students for some time. Students in the Specialist/Specialist Co-op and Major programs in Psychology, Mental Health Studies, Neuroscience, and Paramedicine have first priority for enrollment, and Psychology Minors have second priority.

Consultation:
DCC approval Sept 15, 2022.

Resources:
None
Budget Implications:

Proposal Status:
Under Review

PSYC31H3: Clinical Neuropsychology

Enrolment Limits:

Previous:
75; Restricted to students enrolled in the Specialist/Specialist (Co-op) and Major programs in Psychology, Mental Health Studies and Neuroscience. Students in the Minor Program in Psychology will be admitted if space permits.

New:
Restricted to students enrolled in the Specialist, Specialist Co-op, and Major programs in Psychology and Mental Health Studies. Students in the Minor Program in Psychology will be admitted if space permits.

Prerequisites:

Previous:
PSYB32H3 and [PSYB55H3 or (PSYB65H3)] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]

New:

PSYB32H3 and [PSYB55H3 or (PSYB65H3)] and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]

Rationale:
The department proposes to update the enrollment limits to reflect current practices.

The limit of 75 students is not accurate, and the course is not open to students in Neuroscience. Enrollment controls in ACORN have restricted students in Neuroscience from enrolling in the course for a few years now, and PSYC31 is not part of the neuroscience programs. Prerequisites have not been changed.

Consultation:
DCC approved Aug 25, 2022

Resources:
None
Budget Implications:

Proposal Status:
Under Review

PSYC39H3: Psychology and the Law

Prerequisites:

Previous:
PSYB32H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]

New:

PSYB32H3 and [(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3]

Exclusions:

Previous:
(PSYC53H3), PSY328H, PSY344H

New:

PSY328H, PSY344H

Rationale:

The department proposes to update the course exclusions to remove a retired course. The retired (PSYC53) exclusion mentioned here is no longer accurate. PSYC53 appears to be an active course code, but the content is not related to PSYC39

Consultation:
DCC approved Aug 25, 2022

Resources:
None
Budget Implications:

Proposal Status:
Under Review

PSYC62H3: Drugs and the Brain

Enrolment Limits:

Previous:
Restricted to students in the Specialist/Specialist Co-op and Major programs in Psychology, Mental Health Studies, and Neuroscience. Students in the Specialist program in Integrative Biology will be admitted if space permits.

New:
Restricted to students in the Specialist, Specialist Co-op, and Major programs in Psychology, Mental Health Studies, and Neuroscience. Students in the Minor program in Psychology will be admitted if space permits.

Prerequisites:

Previous:
[PSYB07H3 or STAB22H3 or STAB23H3] and [at least 0.5 credit from the following: PSYB64H3, PSYB55H3, (PSYB65H3), NROB60H3] and [an additional 0.5 credit at the B-level or C-level in PSY or NRO courses]

New:

[PSYB07H3 or STAB22H3 or STAB23H3] and PSYB70H3 and [at least 0.5 credit from the following: PSYB64H3, PSYB55H3, (PSYB65H3), NROB60H3]

Rationale:
The department proposes to update the prerequisites for this course and to remove a note from the course.

PSYB70 was added as a prerequisite to nearly all the C-level PSY courses in 2019, as this course provides foundational knowledge in research methods that is applicable to all subdisciplines of Psychology. The course was not immediately added as a prerequisite for PSYC62 because PSYC62 was part of the Neuroscience programs, and PSYB70 was not part of these programs. In 2020 when the Neuro programs were all revamped, PSYB70 was added as a program requirement. This means that it is now safe for us to add the PSYB70 course as a prerequisite for PSYC62, in line with all other C-level PSY courses.

The note about the course being open to Integrative Biology has been removed, due to PSYC62 not being included in the Integrative Biology program requirements.

Consultation:
DCC approved August 25, 2022

Resources:
None
Budget Implications:

Proposal Status:
Under Review

PSYC90H3: Supervised Study in Psychology

Description:

Previous:

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms.
These courses provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report.
Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and returned to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course, including the structure of the required log-book.
Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Psychology faculty at UTSC then a secondary advisor, that is appointed at UTSC, will be required.

New:

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms.

These courses provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report.
Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and returned to the Psychology Office.
Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Psychology faculty at UTSC then a secondary advisor, that is appointed at UTSC, will be required.

Prerequisites:

Previous:
[(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [2.0 credits in PSY courses and permission of the proposed supervisor]. Normally students need a cumulative GPA of at least 2.7 for permission to be granted.

New:

[(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [2.0 additional PSY credits] and permission of the proposed supervisor. Normally students need a cumulative GPA of at least 2.7 for permission to be granted.

Rationale:
The department proposes to update the course description and prerequisites to improve clarity and reflect current practices.

Course Description: Updated to reflect current practices. The "outline of the schedule and general requirements" are already included in the permission form, and thus are not provided to students after they submit the form. There is no need to mention this in the course description.

Prerequisites: Braces and language tidied up for clarity, but no actual changes to the requirements were made.

Consultation:
DCC approved Aug 25 2022

Resources:
None
Budget Implications:

Proposal Status:
Under Review

PSYC93H3: Supervised Study in Psychology

Description:

Previous:

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms.
These courses provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report.
Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and returned to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course, including the structure of the required log-book.
Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Psychology faculty at UTSC then a secondary advisor, that is appointed at UTSC, will be required.

New:

An intensive research project intended to provide laboratory/field experience in data collection and analysis. The project must be completed over 2 consecutive terms.
These courses provide an opportunity to engage in research in an area after completing basic coverage in regularly scheduled courses. The student must demonstrate a background adequate for the project proposed and should present a clear rationale to prospective supervisors. Regular consultation with the supervisor is necessary, and extensive data collection and analysis will be required. Such a project will culminate in a written research report.
Students must first find a supervisor before the start of the academic term in which the project will be initiated. They must then obtain a permission form from the Department of Psychology's website that is to be completed and signed by the intended supervisor, and returned to the Psychology Office.
Students seeking supervision off campus are further advised to check the appropriateness of the proposed advisor with the Program Supervisor. If the proposed supervisor is not appointed to the Psychology faculty at UTSC then a secondary advisor, that is appointed at UTSC, will be required.

Prerequisites:

Previous:

[(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [2.0 credits in PSY courses and permission of the proposed supervisor]. Normally students need a cumulative GPA of at least 2.7 for permission to be granted.

New:

[(PSYB01H3) or (PSYB04H3) or PSYB70H3] and [PSYB07H3 or STAB22H3 or STAB23H3] and [2.0 additional PSY credits] and permission of the proposed supervisor. Normally students need a cumulative GPA of at least 2.7 for permission to be granted.

Rationale:

The department proposes to update the course description and prerequisites to improve clarity and align with current practices.

Course Description: Updated to reflect current practices. The "outline of the schedule and general requirements" are already included in the permission form, and thus are not provided to students after they submit the form. There is no need to mention this in the course description.

Prerequisites: Braces and language tidied up for clarity, but no actual changes to the requirements were made.

Consultation:

DCC approved Aug 25 2022

Resources:

None

Budget Implications:

Proposal Status:

Under Review

PSYD33H3: Current Topics in Clinical Psychology

Enrolment Limits:

Previous:

24

New:

24

Prerequisites:

Previous:

PSYB32H3 and [PSYB07H3 or STAB22H3 or STAB23H3] and [0.5 credit at the C-level in PSY courses]

New:

PSYB32H3 and [PSYB07H3 or STAB22H3 or STAB23H3] and PSYB70H3 and [0.5 credit at the C-level in PSY courses]

Recommended Preparation:

Previous:

[(PSYB01H3) or (PSYB04H3) or PSYB70H3]

New:

Rationale:

The department proposes to add PSYB70H3 as a prerequisite to this course.

PSYB70 was added as a prerequisite to nearly all the D-level PSY courses in 2019, as this course provides foundational knowledge in research methods that is applicable to all subdisciplines of Psychology. The course was not immediately added as a prerequisite for PSYD33 because PSYD33 was part of the Neuroscience programs, and PSYB70 was not part of these programs. In 2020 when the Neuro programs were all revamped, PSYB70 was added as a program requirement. This means that it is now safe for us to add the PSYB70 course as a prerequisite for PSYD33, in line with all other D-level PSY courses.

Consultation:

DCC approved August 25, 2022

Resources:

None

Budget Implications:

Proposal Status:

Under Review

PSYD98Y3: Thesis in Psychology

Description:

Previous:

This course offers the opportunity to engage in a year-long research project under the supervision of an interested member of the faculty in Psychology. The project will culminate in a written report in the form of a thesis and a poster presentation. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigation. Students must first find a supervisor, which is usually confirmed before the start of the academic term in which the project will be initiated. Students will meet as a group with the coordinator as well as individually with their supervisor. This course is restricted to Majors and Specialists in Psychology and Mental Health Studies with a GPA of 3.3 or higher over the last 5.0 credit equivalents completed. Students planning to pursue graduate studies are especially encouraged to enrol in the course. Students must obtain a permission form from the

Department of Psychology website that is to be completed and signed by the intended supervisor, and submitted to the Psychology Office. At that time, the student will be provided with an outline of the schedule and general requirements for the course. Students seeking supervision off campus will need to arrange co-supervision with a faculty member in Psychology at this campus.

New:

This course offers the opportunity to engage in a year-long research project under the supervision of an interested member of the faculty in Psychology. The project will culminate in a written report in the form of a thesis and a poster presentation. During the course of the year, at appropriate times, students will meet to present their own research proposals, to appraise the proposals of others, and to discuss the results of their investigation. Students must first find a supervisor, which is usually confirmed before the start of the academic term in which the project will be initiated. Students will meet as a group with the coordinator as well as individually with their supervisor. This course is restricted to Majors and Specialists in Psychology and Mental Health Studies with a GPA of 3.3 or higher over the last 5.0 credit equivalents completed. Students planning to pursue graduate studies are especially encouraged to enroll in the course. Students must obtain a permission form from the Department of Psychology website that is to be completed and signed by the intended supervisor and submitted to the Psychology Office. Students seeking supervision off campus will need to arrange co-supervision with a faculty member in Psychology at this campus.

Prerequisites:

Previous:
PSYC02H3 and [(PSYB01H3) or PSYC70H3] and [PSYC08H3 or PSYC09H3] and [enrollment in Specialist or Major Programs in Psychology or Mental Health Studies] and [GPA of 3.3 or higher over the last 5.0 credit equivalents completed]. Note: Registration in D-level courses on ROSI is tentative. This is to ensure spaces in these courses for students who need them to graduate at the end of the current session. ROSI will show your status in the course and its final confirmation.

New:

PSYC02H3 and [PSYC08H3 or PSYC09H3] and PSYC70H3 and [enrollment in the Specialist Co-op, Specialist, or Major Program in Psychology or Mental Health Studies] and [GPA of 3.3 or higher over the last 5.0 credit equivalents completed] and permission of the proposed supervisor.

Rationale:
The department proposes to update the course description and prerequisites to improve accuracy and reflect current practices.

Description: Updated to reflect current practices. The course outline is provided when classes begin in September, not upon submission of the permission form. There is no need to mention this in the course description.

The following prerequisites have been updated:
- PSYB01 was retired in 2019. We no longer accept this course as sufficient background for PSYD98, as the more advanced PSYC70 course is required. Futher confusion is arising from students seeing that PSYB01 is listed in the Calendar as an exclusion of PSYB70, and assuming that PSYB70 is sufficient background for PSYD98. This is not the case, as PSYB70 is less advanced than PSYB01, which is less advanced than PSYC70. We now require PSYC70, as this course better prepares students for success in their thesis projects.
- Added Specialist Co-op as an explicit program option, for clarity. (Co-op students have always been allowed to take this course, but this has not been clearly articulated in the prerequisites by only listing "Specialist")
- Added "permission of the proposed supervisor" for consistency with other research course prerequisites.
- The note about D-level enrollment being tentative has been removed, as this information is better communicated via the enrollment controls in the web timetable.

Consultation:
DCC approved Aug 25, 2022

Resources:
None
Budget Implications:

Proposal Status:
Under Review

1 Course Retirement - No Committee

PSYC06H3: Psychophysiology Laboratory

Rationale:
PSYC06 has not been offered in a number of years, and its associated faculty member is no longer employed at UTSC. There are no plans to offer this course again in future.

Consultation:
Social Psychology faculty were consulted and are in support of retiring this course. DCC approved on Sept. 15, 2022.

Resources:

Budget Implications:

Proposal Status:
Under Review