

**FOR APPROVAL**

**PUBLIC**

**OPEN SESSION**

**TO:** UTSC Academic Affairs Committee

**SPONSOR:** Prof. William Gough, Vice-Principal Academic and Dean

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**DATE:** April 13, 2023 for May 1, 2023

**AGENDA ITEM:** 6

**ITEM IDENTIFICATION:**

Minor Modifications: Undergraduate Curriculum Changes – Arts and Science Co-op, UTSC (for approval)\*

**JURISDICTIONAL INFORMATION:**

University of Toronto Scarborough Academic Affairs Committee (AAC) “is concerned with matters affecting the teaching, learning and research functions of the Campus (*AAC Terms of Reference, 2021, Section 4*).” Under section 5.6 of its terms of reference, the Committee is responsible for approval of “Major and minor modifications to existing degree programs.” The AAC has responsibility for the approval of Major and Minor modifications to existing programs as defined by the University of Toronto Quality Assurance Process (*UTQAP, Section 3.1*).

**GOVERNANCE PATH:**

1. UTSC Academic Affairs Committee [For Approval] (May 1, 2023)

**PREVIOUS ACTION TAKEN:**

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

## *Minor Modifications: Undergraduate Curriculum Changes*

### **HIGHLIGHTS:**

This package includes minor modifications to the undergraduate curriculum, submitted by the UTSC Arts and Science Co-op identified below, which require governance approval. Minor modifications to curriculum are understood as those that do not have a significant impact on program or course learning outcomes. They require governance approval when they modestly change the nature of a program or course.

- The Office of Arts and Science Co-op (Report: Arts and Science Co-op: Science Co-op Programs)  
The proposed changes to Science Co-op Programs increase the work term requirement from two to three work terms, and adjust course and minimum credit requirements for the first work term to allow students to go out on work term earlier in their degree/program. These changes standardize requirements across all A&S Co-op programs and bring them into compliance with CEWIL guidelines and accreditation standards and Ontario Tax Credit guidelines, while ensuring that no additional time to completion will be needed. In addition to enabling students to enter the workplace earlier in their degrees, these changes will benefit students with increased consistency and clarity across A&S Co-op programs, additional programs and pathways within Co-op, and reduced academic barriers to progression through the program. These changes are being proposed for the following programs:
  - 21 Science Co-op Program Changes
    - Department of Biological Sciences:
      - Specialist Co-op Conservation and Biodiversity
      - Specialist Co-op in Molecular Biology & Biotechnology
    - Department of Computer & Mathematical Sciences
      - Major Co-op in Computer Science
      - Major Co-op in Mathematics
      - Major Co-op in Statistics
      - Specialist Co-op in Mathematics
      - Specialist Co-op in Statistics
    - Department of Physical and Environmental Sciences
      - Biochemistry Co-op Major
      - Biological Chemistry Specialist Co-op
      - Chemistry Co-op Major
      - Chemistry Specialist Co-op
      - Environmental Chemistry Co-op Specialist
      - Environmental Geoscience Specialist Co-op
      - Environmental Physics Specialist Co-op
      - Environmental Science Co-op Major
      - Global Environmental Change Specialist Co-op
    - Department of Health & Society
      - Major Co-op Health Studies – Population Health
    - Department of Psychology
      - Specialist Co-op Psychology
      - Specialist Co-op Mental Health Studies
      - Specialist Co-op Neuroscience

*Minor Modifications: Undergraduate Curriculum Changes*

- Department of Language Studies
  - Specialist Co-op in Psycholinguistics

**FINANCIAL IMPLICATIONS:**

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

**RECOMMENDATION:**

Be It Resolved,

THAT the proposed Arts and Science Co-op: Science Co-op program undergraduate curriculum changes be approved for the 2023-24 academic year, as detailed in the respective curriculum reports, dated April 13, 2023, be approved effective, September 1, 2024.

**DOCUMENTATION PROVIDED:**

1. 2023-24 Curriculum Cycle Undergraduate Minor Curriculum Modifications for Approval Report: Arts and Science Co-op: Science Co-op Programs, dated April 13, 2023.

# University of Toronto Scarborough Minor Program Modifications Proposal - Undergraduate

Version date: April 13, 2023

## Summary of Modifications

UTSC is proposing a set of changes across existing Science Co-op Programs, to increase the work term requirement from two to three work terms, and adjust course and minimum credit requirements for the first work term to allow students to go out on work term earlier in their degree/program.

These changes are being proposed to standardize requirements across all A&S Co-op programs and bring them into compliance with CEWIL (Co-operative Education and Work-Integrated Learning) Canada guidelines and accreditation standards and the Ontario Tax Credit guidelines, while ensuring that no additional time to completion will be required for students. The proposed changes will allow students to enter the workplace earlier in their degrees, and benefit students with increased consistency and clarity across A&S Co-op programs, additional programs and pathways within Co-op, and reduced academic barriers to progression through the program.

Accompanying these changes to work term sequencing are housekeeping updates to standardize program description language and make the Calendar copy consistent across all Co-op program entries, and to update information on the Arts & Science Co-op Calendar section to reflect these changes along with the addition of 12 new Science Co-op Major and Specialist programs.

## Effective date:

September 1, 2024 (for 2024 program registration period)

## List of Programs Being Modified

Department of Biological Sciences:

- Specialist (Co-operative) Program in Conservation and Biodiversity
- Specialist (Co-operative) Program in Molecular Biology & Biotechnology

Department of Computer & Mathematical Sciences

- Major (Co-operative) Program in Computer Science
- Major (Co-operative) Program in Mathematics
- Major (Co-operative) Program in Statistics
- Specialist (Co-operative) Program in Mathematics

- Specialist (Co-operative) Program in Statistics

#### Department of Physical and Environmental Sciences

- Major (Co-operative) Program in Biochemistry
- Specialist (Co-operative) Program in Biological Chemistry
- Major (Co-operative) Program in Chemistry
- Specialist (Co-operative) Program in Chemistry
- Specialist (Co-operative) Program in Environmental Chemistry
- Specialist (Co-operative) Program in Environmental Geoscience
- Specialist (Co-operative) Program in Environmental Physics
- Major (Co-operative) Program in Environmental Science
- Specialist (Co-operative) Program in Global Environmental Change

#### Department of Health & Society

- Major (Co-operative) Program in Health Studies - Population Health

#### Department of Psychology

- Specialist (Co-operative) Program in Psychology
- Specialist (Co-operative) Program in Mental Health Studies
- Specialist (Co-operative) Program in Neuroscience

#### Department of Language Studies

- Specialist (Co-operative) Program in Psycholinguistics

## Changes to Program Calendar Description

Tracked Changes to Calendar copy are provided in Appendix A.

## Proposal Questions - General

### **Brief Description of the Proposed Changes:**

1. Under requirements for first work term, minimum credits reduces from 10.0/9.0 to 7.0.
2. Under requirements for first work term, courses that are required for entry into subject POST/program are removed as students will have met these criteria in order to be entered into the program.
3. Under requirements for first work term, required academic courses for first work term (course codes indicated in Calendar copy) are changed from required to recommended, or removed. These courses will still be required for degree completion but are not required before being able to go out on a work term.
4. Under co-op work term requirements, increase in number of work terms required from two to three work terms.

5. Co-op course requirements are updated to reflect preparation, seeking, and on work term required courses.

**Rationale:**

1. Reduction of minimum credits required before first work term to 7.0 aligns the credit requirement for all co-op programs and allows for a third work term to be completed as part of the degree without adding additional time to completion. This reduction will allow students to go out on work term earlier in their degree/program. No additional time to completion will be needed.
2. Removal of program entry course requirements as work term requirements reduces duplication, as these are already stated in the Enrollment Requirements section
3. First work term course requirements changing from required to recommended will allow students to proceed with a work term sooner. Key courses that will help secure a work term in particular industries or roles will be shared with co-op students to help make decisions on their academic course planning, but these are not necessary for all students to be successful in securing a first work term.
4. Increase from two to three work terms allows all Arts & Science Co-op programs to meet the “Total time for mandatory work components of 30% of time spent in required academic study.” The increase in number of work terms to 3 across all A&S Co-op program offerings makes all co-op programs in Arts & Science compliant with CEWIL guidelines and accreditation standards and co-op tax credit requirement compliance. Clarity for students when looking at their degree requirements for their program both the academic and co-op program requirements are outlined in one spot.

**Impact:**

These changes to minimum credits, required courses and number of work terms will:

- positively impact the student experience at UTSC and in the co-op programs by reducing academic barriers to progression through the co-op program and delays to degree completion which currently result in students leaving co-op
- increase student retention in co-op by providing additional programs with co-op option, and viable academic pathways to support co-op students alternating school/study and work semesters (students currently withdraw from the program if they are unable to complete their program due to academic barriers)
- enable students to enter workplace earlier in their degrees and gain exposure to various pathways and options based on areas of interest and study
- provide consistent requirements for a first work term for all co-op programs - 2.5 cGPA, 7 credits, in a co-op subject POST
- map degree requirements to industry co-op job categories, showing connection of academic courses to co-op work term options
- increase offerings of academic courses by Academic Units to support student progression in co-op and degree completion - this includes offering required courses more than once a year, improving summer offerings and creating at minimum 5 viable co-op sequences for students to select from that will allow co-op and academic

requirements to be met in 4 years (this includes two 4/4/4 [3 work term options], one 4/8 [one 4 month and one 8 month work term options], and one 12-month option).

- ensure compliance with Canadian work integrated learning and co-op standards and Ontario Tax Credit guidelines

Students' cost for co-op will increase for programs that previously required 2 work terms. This change makes Co-op fees consistent across all program areas.

#### **Consultation:**

- June 1, 2022 - Meeting with ADEGL, Director A&S Co-op, Assistant Director, Student Services A&S Co-op
- October 31, 2022 - presentation in Co-op Steering Committee
- November 23, 2022 - VDRESS, Director A&S Co-op, AD Student Services A&S Co-op
- December 19, 2022 - Consultation with Psychology department (Chair, Assistant Chair, Manager Operations)
- January 9, 2023- VDRESS, Chairs all Science Co-op academic departments, Director & ADSS A&S Coop
- January 16, 2023 - Co-op Steering Committee presentation
- Week of January 16, 2023 - emails sent to all Chairs regarding proposed changes for Fall 2024
- January 24, 2023 - consultation with Languages department
- January 26, 2023 - CAD - Dave presenting
- January 26, 2023 - consultation with Geography department
- Feb 2 - consultation with Historical and Cultural Studies department
- Feb 7 - consultation with DPES
- Feb 14 - meeting with Psychology
- Feb 15 - consultation with English
- March 30 - meeting with Psychology

## **Resource Implications**

Given the anticipated growth in enrolment in Co-op programs, there might be a need to offer greater support to address an increase in work term report marking. Specific arrangements for work term report marking vary across departments, often reflected in service responsibilities for faculty.

Any enrolment increases that result in a need for additional teaching, stipendiary or TA-related activity will be assessed as a part of the annual planning and priority budget process. SAMIH-related stipendiary needs will be prioritized as a part of the upcoming tri-annual review of departmental stipend and TA budgets taking place in 2023-24.

UTSC is committed to ensuring that any resource needs related to Co-op growth and related course sequencing to support SAMIH-specific enrolment targets will be met.

# Appendix: Calendar Copy

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# Arts and Science Co-op

Arts and Science Co-op Contact: [askcoop@utoronto.ca](mailto:askcoop@utoronto.ca)

Arts & Science Co-op Student Success & Program Coordinator: C. Dixon [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Arts & Science Co-op Programs offer co-op across 12 academic departments for students pursuing a Bachelor of Science or Bachelor of Arts degree. Co-op programs combine academic studies with paid work experience (two or three work terms - depending on your area of co-op Specialization or Major). Work terms are four, eight, or twelve months in duration and can be in the Greater Toronto Area (GTA), across Canada, or internationally. There are over 30 program streams to choose from across the Arts & Science disciplines. For information about the benefits of Co-op, program areas, co-op fees and services, and work term opportunities, please visit the Arts & Science Co-op website: <https://utsc.utoronto.ca/artscicoop/>

## Full Year/Trimester Programming

The Arts & Science Co-op programs operate on a trimester schedule, featuring three terms (Fall, Winter, and Summer) in each calendar year. Students work or study in all three terms for four years or until graduation requirements are met. Each Arts & Science Co-op program requires eight four-month terms of study and two or three work terms (depending on co-op program of study). Students normally begin with three to five study terms (Fall, Winter, and Summer), then alternate study and work terms. Students always conclude their degree with a study term.

## Program Requirements

Co-op students follow the course requirements of one of the Specialist or Major programs offered by the Arts & Science Co-op Department. Students are advised to consult regularly with the Academic Program Supervisor or Advisor if they have course selection and scheduling questions.

For questions about Co-op courses and work term sequences, students can contact the Co-op Student Success & Program Coordinator.

It is the students' responsibility to ensure they have completed the correct courses to make them eligible for each work term and they have correctly completed program and degree requirements for graduation.

## Status in Co-op Programs:

Status in an Arts & Science Co-op program will be determined at the end of each session (Fall, Winter, and Summer) for students who have attempted at least 4.0 credits since beginning their studies at UTSC or in other Arts and Sciences Divisions at the University. Students with a cumulative grade point average (CGPA) of 2.5 or higher are considered in good standing.

<u>CGPA of 2.5 or higher</u>	<u>Between 2.49 – 2.3</u>	<u>Below 2.3</u>
<u>In Good Standing</u>	<u>On Co-op Probation</u> <ul style="list-style-type: none"><li><u>Students may clear probation by achieving a CGPA of 2.5 or better in the next study session. Where the CGPA is below 2.5 but above 2.3, and the sessional grade point</u></li></ul>	<u>Removed from Co-op</u>

	<p><u>average (SGPA) is at least 2.5, students may be granted a second probationary semester.</u></p> <ul style="list-style-type: none"> <li>• <u>Students must clear their probation within a maximum of two study sessions in order to remain in a Co-op program.</u> <ul style="list-style-type: none"> <li>• <u>Students on probation in the Co-op program may not apply for a work-term until they have successfully cleared their probation. However, if a student's CGPA falls below 2.5 after having secured a co-op work-term through the recruitment process, the student will be permitted to complete the work term but must clear probation before being permitted to participate in the next recruitment process.</u></li> </ul> </li> </ul>	
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- ~~Students whose CGPA falls below 2.5 will be placed on probation.~~
- ~~Students may clear probation by achieving a CGPA of 2.5 or better in the next study session. Where the CGPA is below 2.5 but above 2.3, and the sessional grade point average (SGPA) is at least 2.5, students may be granted a second probationary semester.~~
- ~~Students must clear their probation within a maximum of two study sessions in order to remain in a Co-op program.~~
- ~~Students on probation in the Co-op program may not apply for a work-term until they have successfully cleared their probation. However, if a student's CGPA falls below 2.5 after having secured a co-op work-term through the recruitment process, the student will be permitted to complete the work term but must clear probation before being permitted to participate in the next recruitment process.~~
- ~~Students whose CGPA falls below 2.3 will be removed from the Co-op program.~~

For information on fees in Co-op programs and certification of completion of Co-op programs, see the [6B.5 Co-operative Programs](#) section in the *Calendar*.

## ELIGIBILITY FOR WORK TERMS

While remaining in the Co-op program requires a student to have a minimum CGPA of 2.5, each academic program has specific work term eligibility requirements. The student's responsibility is to ensure that they have completed the correct courses to make them eligible for a work term and have correctly completed program and degree requirements for graduation.

Note: You are automatically enrolled in seeking and on work term Co-op courses by the Arts & Science Co-op Office based on your program area/subject POST and work term sequence. Preparation courses ([COPB50H3](#) and [COPB51H3](#)) are self-enrolled, and students can enroll for these during regular course enrollment periods.

First Work Term Eligibility:

To compete for a work term, a student must:

1. Be in a Co-op Subject POST;

Note: 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 in the academic program sections the Calendar.

2. Complete 7.0 credits (Bachelor of Science programs), or 7.0, 9.0 or 10.0 credits (Bachelor of Arts programs – specific credit requirements are outlined within academic program section of the calendar)

3. Maintain a minimum of Have a cGPA of 2.5 or higher. .2.5 CGPA;

2. Successfully Complete Co-op Work Term Preparation courses [COPB50H3](#) and [COPB51H3](#) and Work Term Seeking courses [COPB52H3](#) (and [COPB53H3](#) if needed);

4. Be legally entitled to work in Canada - Have a valid co-op work permit (International Students) and Social Insurance Number;

5. Successfully Complete Co-op Work Term Preparation courses COPB50H3 and COPB51H3 ~~4. Be in a Co-op Subject POST;~~

~~Note: 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 in the academic program sections the Calendar. Complete the minimum required number of credits depending on your program of study (7.0 credits, 9.0 credits, or 10.0 credits).~~

~~5. Complete specific academic courses required before a first work term.~~

For details on points 4-1 and 5-2 above, view the academic program sections of the Calendar linked below:

Biology	Specialist (Co-op) Program in Molecular Biology and Biotechnology (Science) Specialist (Co-op) Program in Conservation & Biodiversity (Science) <u>Major (Co-op) Program in Conservation &amp; Biodiversity (Science)</u> <u>New co-op programs need to be added once approved</u>
Chemistry	Specialist (Co-op) Program in Biological Chemistry (Science) Specialist (Co-op) Program in Chemistry (Science) Major (Co-op) Program in Biochemistry (Science) Major (Co-op) Program in Chemistry (Science)
City Studies	Major (Co-op) Program in City Studies (Arts)
Computer Science	Specialist (Co-op) Program in Computer Science (Science) Major (Co-op) Program in Computer Science (Science)
English	Specialist (Co-op) Program in English (Arts) Major (Co-op) Program in English (Arts)
Environmental Science	Specialist (Co-op) Program in Global Environmental Change (Science) Specialist (Co-op) Program in Environmental Chemistry (Science) Specialist (Co-op) Program in Environmental Geoscience (Science) Major (Co-op) Program in Environmental Chemistry (Science)

	Major (Co-op) Program in Environmental Science (Science)
French	Specialist (Co-op) Program in French (Arts) Major (Co-op) Program in French (Arts)
Health Studies	Major (Co-op) Program in Health Studies – Health Policy (Arts) Major (Co-op) Program in Health Studies – Population Health (Science)
History	Specialist (Co-op) Program in History (Arts) Major (Co-op) Program in History (Arts)
Linguistics	Specialist (Co-op) Program in Linguistics (Arts) Specialist (Co-op) Program in Psycholinguistics ( <a href="#">ArtsScience</a> ) Major (Co-op) Program in Linguistics (Arts)
Mathematics	Specialist (Co-op) Program in Mathematics (Science) Major (Co-op) Program in Mathematics (Science)
Neuroscience	Specialist (Co-op) Program in Neuroscience (Science) <a href="#">Major (Co-op) Program in Neuroscience (Science)</a>
Philosophy	Specialist (Co-op) Program in Philosophy (Arts) Major (Co-op) Program in Philosophy (Arts)
Physics and Astrophysics	Specialist (Co-op) Program in Environmental Physics (Science)
Psychology	Specialist (Co-op) Program in Mental Health Studies (Science) <a href="#">Major (Co-op) Program in Mental Health Studies</a> Specialist (Co-op) Program in Psychology (Science) <a href="#">Major (Co-op) Program in Psychology (Science)</a>
Public Policy	Major (Co-op) Program in Public Policy (Arts)

Statistics

Specialist (Co-op) Program in Statistics (Science)

Major (Co-op) Program in Statistics (Science)

Women's and  
Gender Studies

Major (Co-op) Program in Women's And Gender Studies (Arts)

*Second Work Term Eligibility Requirements:*

- 1) Maintain a minimum of 2.5 CGPA for Co-op;
- 2) Successfully Complete Co-op Work Term Preparation course [COPC98H3](#) and 0.5 credit on work term course from the list below: [COPC01H3](#), [COPC03H3](#), [COPC05H3](#), [COPC13H3](#), [COPC14H3](#), [COPC20H3](#), [COPC30H3](#), OR [COPC40H3](#);
- 3) Have less than 18.5 credits;
- 4) Be legally entitled to work in Canada - Have a valid co-op work permit (International Students) and Social Insurance Number;
- 5) Be in a Co-op Subject POST.

*Third or Additional Work Term Requirements:*

- 1) Maintain a minimum of 2.5 CGPA for Co-op;
- 2) Successfully Complete Co-op Work Term Preparation course [COPC99H3](#) and 1.0 credit on work term courses ([COPC01H3](#), [COPC03H3](#), [COPC05H3](#), [COPC13H3](#), [COPC14H3](#), [COPC20H3](#), [COPC30H3](#), OR [COPC40H3](#));
- 3) Have less than 18.5 credits;
- 4) Be legally entitled to work in Canada - Have a valid co-op work permit (International Students) and Social Insurance Number;
- 5) Be in a Co-op Subject POST;
- 6) Approval from the Co-op Office for additional work terms beyond your program minimum.

CO-OP COURSES

- Preparation Courses: COPB50H3 and COPB51H3
- Work Term Search Courses: COPB52H3, COPC98H3, COPC99H3
- On Work Term Courses: these are dependent on your Co-op Subject POST

**COPB36H3 - Work Term in Biodiversity and its Field Assessment**

While working with a Co-op employer, students will learn how to find, identify and recognize wild species of plants and fishes (or other groups) in the Greater Toronto Area, their major taxonomic groups contributing to their local diversity, and their basic biology (including conservation status and role in local ecosystems). Students will also learn and apply best-practice quantitative methodologies to assess diversity in the field. Students will then apply this new knowledge by creating a collection, participating in regular species identification and contributing to long-term biodiversity monitoring data sets in local green areas. While in this course, students will complete co-op preparation activities to develop job search documents incorporating this work term experience.

**Note:** Students are enrolled in this course after enrolment in the Specialist Co-op Program in Conservation and Biodiversity and will receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect upon their work term experience and performance

**Prerequisite:** Completion of 4.0 credits, including the following courses [[BIOA01H3](#) and [BIOA02H3](#) and [CHMA10H3](#) and [CHMA11H3](#) and [MATA29H3](#) or [MATA30H3](#) or [MATA35H3](#), or [MATA36H3](#)]; a CGPA of at least 2.75; and enrolment in the Specialist Co-op Program in Conservation and Biodiversity  
Enrolment Limits: 5  
Course Experience: Professional Work Term

[Link to UTSC Timetable](#)

### COPB50H3 - Foundations for Success in Arts and Science Co-op

This course provides students in their first-year of Arts and Science Co-op to develop skills and tools to manage and thrive during the job search and in the workplace throughout the semester. In addition, students begin to build their job search tool kit, examine their strengths and areas of development, discover the skills employers are seeking in undergraduate Co-op students and in employees in general, and explore possible pathways to achieving their Co-op work terms and long term academic or career goals. Students will learn and practice strategies to best present their skills, knowledge and experience in foundational job search documents. The concept of interviewing is also introduced.

This course is a compulsory requirement for the Arts and Science Co-op programs. Students need to pass the course before proceeding to seek for a Co-op work term, therefore, this course may be repeated.

**Prerequisite:** Restricted to students in the Arts and Science Co-op programs.

**Exclusion:** [COPB10Y3](#)/([COPD07Y3](#)); ([COPD01H3](#)), [COPB36H3](#)

**Course Experience:** University-Based Experience

**Note:** Students should plan to complete this course in the first year of study in their selected Arts and Science Co-op program.

[Link to UTSC Timetable](#)

### COPB51H3 - Preparing to Compete For Your Co-op Work Term

This course builds on the foundational job search concepts introduced in [COPB50H3/COPD01H3](#), providing opportunities to refine application strategies and practice interviewing in various formats, based on academic program areas as well as industry hiring practices. Students begin to experience the Co-op job search cycle by reviewing, selecting, and applying to job postings weekly and receiving feedback similar to when participating in a job search cycle. With this feedback, and the support of your Coordinator, students make adjustments to their job search approach and develop strategies for success in the following term for both job applications and interview performance. The importance of a job search network and research to tailor and prepare during your job search are also examined.

This course is a compulsory requirement for the Arts and Science Co-op programs. Students need to pass the course before proceeding to seek for a Co-op work term, therefore, this course may be repeated.

**Prerequisite:** [COPB50H3](#)/([COPD01H3](#)); restricted to students in the Arts and Science Co-op programs.

**Exclusion:** ([COPD03H3](#))

**Course Experience:** University-Based Experience

[Link to UTSC Timetable](#)

### COPB52H3 - Managing Your Job Search and Transition to Work

This course will draw on students job search experience. Students will learn how to effectively and professionally navigate challenging situations while job searching and on work term. Drawing upon the job search knowledge and tool kit created in COPB50H2 and [COPB51H3](#), this course is designed to provide students who are competing for a first Co-op work term with resources and support necessary to meet their goal of securing a work term. During this semester, Co-op students are applying to job postings on CSM and attending interviews until they secure a work term. This course also provides students with job search trends, job search support and feedback, interview coaching, and peer activities. The course is a combination of in-class, group activities, and one-on-one appointments. Topical information and insights about the labour market and Co-op employers are also provided.

**Prerequisite:** [COPB51H3](#)/(COPD03H3); restricted to students in the Arts and Science Co-op programs.

**Exclusion:** (COPD11H3)

Course Experience: Partnership-Based Experience

[Link to UTSC Timetable](#)

### COPB53H3 - Managing Your Ongoing Work Term Job Search

This course is for students in Arts & Science Co-op who have undertaken a first work term search and successfully completed [COPB52H3](#)/(COPD11H3), but have not embarked on a first work term experience. Students in this course will continue with job search activities and receive additional support factoring in their overall learning.

**Prerequisite:** [COPB52H3](#)/(COPD11H3); restricted to students in the Arts and Science Co-op programs.

**Course Experience:** Partnership-Based Experience

[Link to UTSC Timetable](#)

### COPC01H3 - Co-op Work Term for Mathematical Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts & Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 3 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

**Prerequisite:** [COPB52H3](#)/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Note:** Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

[Link to UTSC Timetable](#)

### COPC03H3 - Co-op Work Term for Computer Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project



is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts & Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 3 work terms for the co-op program. Students will be allowed to repeat this course 3 to 5 times.

**Prerequisite:** [COPB52H3](#)/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Course Experience:** Professional Work Term

Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

[Link to UTSC Timetable](#)

### COPC05H3 - Co-op Work Term for Physical and Environmental Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 3 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

**Prerequisite:** [COPB52H3](#)/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Course Experience:** Professional Work Term

Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

[Link to UTSC Timetable](#)

### COPC13H3 - Co-op Work Term for Social Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of [32](#) work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

**Prerequisite:** [COPB52H3](#)/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Course Experience:** Professional Work Term

Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

[Link to UTSC Timetable](#)

### COPC14H3 - Co-op Work Term for Neuroscience

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts & Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 2-3 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

**Prerequisite:** [COPB52H3](#)/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Course Experience:** Professional Work Term

Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

[Link to UTSC Timetable](#)

### COPC20H3 - Co-op Work Term for Humanities

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of -23 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

**Prerequisite:** [COPB52H3](#)/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Course Experience:** Professional Work Term

Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

[Link to UTSC Timetable](#)

### [COPC21H3 - Co-op Work Term for Sciences-](#)

[While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.](#)

[There is a minimum requirement of 3 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.](#)

**Prerequisite:** [COPB52H3/\(COPD11H3\)](#) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Course Experience:** Professional Work Term

**Note:** [Students may receive a No Credit \(NCR\) in previous instance of the course and Credit \(CR\) while in different work locations.](#)

[Link to UTSC Timetable](#)

### COPC30H3 - Co-op Work Term for Biological Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of ~~2~~<sup>3</sup> work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

**Prerequisite:** [COPB52H3/\(COPD11H3\)](#) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Course Experience:** Professional Work Term

**Note:** Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

[Link to UTSC Timetable](#)

### COPC36H3 - Co-op Work Term for Conservation and Biodiversity

Students work full-time at a co-op employer based on the position they are hired into. While working with their employer, students complete the duties of the position, set goals for the term in consultation with their work term supervisor, track and reflect upon these goals and progress and are assessed on performance in the workplace. A work term project and portfolio bring together industry and academic knowledge and showcase students' work and skill development working full time with a co-op employer. Students receive support and guidance from co-op coordinators, faculty and peers, and share and reflect on their work term experiences.

There is a minimum requirement of 3 work terms for this Co-op program. Students will be allowed to complete this course 2 to 4 times for each work term semester.

**Note:** Students are enrolled in this course once hired for their second and third or additional co-op work terms.

**Prerequisite:** [Completion of [COPB36H3](#) and [COPB51H3](#) and [COPB52H3](#)] or permission from the department.

Course Experience: Professional Work Term

[Link to UTSC Timetable](#)

## COPC40H3 - Co-op Work Term in Psychological and Health Sciences

While working full time with a Co-op employer, students receive support and guidance from Co-op coordinators, faculty and peers, to share and reflect on their work term experiences. A culminating project is completed to bring together industry and academic knowledge and showcase the work and skill development throughout each Co-op work experience. Students are enrolled into this course once hired for a Co-op work term. Arts and Science Co-op students will complete this course each semester when on work term.

There is a minimum requirement of 2-3 work terms for the Co-op program. Students will be allowed to repeat this course 3 to 5 times.

**Prerequisite:** [COPB52H3](#)/(COPD11H3) and permission from Arts and Science Co-op; restricted to students in Arts and Science Co-op programs.

**Course Experience:** Professional Work Term

Note: Students may receive a No Credit (NCR) in previous instance of the course and Credit (CR) while in different work locations.

[Link to UTSC Timetable](#)

## COPC98H3 - Integrating Your Work Term Experience Part I

This course is designed to provide students who have completed their first work term with tools and strategies to effectively integrate their recent work term experience into their job search documents, as well as practice articulating their new or enhanced skills and experience in an interview setting. Students are provided with opportunities to practice and refine their approach as they begin to seek their next Co-op work term. In class Apply Together sessions and one-on-one appointment consultations with your Work Term Engagement Coordinator will provide you with semester specific market trends, tools and resources to succeed in your job search. There are also online and in person forums for sharing work term and job search experience with junior Co-op students and peers.

**Prerequisite:** [COPB52H3](#)/(COPD11H3) and completion of one work term; restricted to students in the Arts and Science Co-op Programs.

**Exclusion:** (COPD12H3)

Course Experience: Partnership-Based Experience

[Link to UTSC Timetable](#)

## COPC99H3 - Integrating Your Work Term Experience Part II

This course is designed to provide students who have completed 2 work terms or more with tools and strategies to effectively integrate their recent work term experiences into their job search documents as well as practice articulating their new or enhanced skills and experience in an interview setting. Students are provided with opportunities to practice and refine their approach as they job search/compete for another Co-op work term. In class Apply Together sessions and one-on-one appointment consultations with your Work Term Engagement Coordinator will provide you with semester specific market trends, tools and resources to succeed in your job search. Having the experience of job searching and at least 8 months of work term experience, students share, compare, and contrast their individual experiences. There are also online and in person forums for sharing their work term and job search experience with junior Co-op students.

**Prerequisite:** [COPC98H3](#)/(COPD12H3) and completion of at least two work terms; restricted to students in the Arts and Science Co-op programs.

**Exclusion:** (COPD13H3)

Course Experience: Partnership-Based Experience

Note: Students complete this course each time they are job searching for a work term beyond their second work term.

[Link to UTSC Timetable](#)

# Biological Sciences

## Specialist (Co-operative) Program in Conservation and Biodiversity

Academic Program Supervisor: [I.Stehlik](mailto:I.Stehlik), [ivana.stehlik@utoronto.ca](mailto:ivana.stehlik@utoronto.ca).

Co-op Program Coordinator: C. Dixon [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

This program presents a foundation for understanding how ecology and evolution shape organismal features (from morphology and physiology to behaviour), and the structure and function of communities and ecosystems. These processes determine the broad patterns of organization of life on earth and biodiversity, and the challenges to biodiversity are daunting: habitat destruction, biological invasions and climate change are causing loss of species and disruption of ecosystems worldwide. In this program, students are trained to understand and actively seek solutions to these problems. This program will also show how ecological and evolutionary perspectives can be used to understand and predict the outcome of dynamic interactions among organisms, populations, species, and communities. Graduates will be well trained to take on positions in government agencies, consulting firms or NGO's, to pursue careers in business or law related to environmental issues, stewardship and sustainable development, or to continue with graduate studies in science for academic careers.

The co-op option of the Conservation and Biodiversity program complements and punctuates academic course work with full-time work terms in the various governmental or non-governmental conservation agencies, in labs or in public or private industry. These [work term placements](#) help students define and refine their career and/or professional school goals. For information on admissions, fees, work terms and standing in the Program, please see section 6B.5 (Co-operative Programs) or the Arts and Science Co-op section in this Calendar.

### Enrolment Requirements

Enrolment in the program is limited. Students may apply to enter the program after completing 4.0 credits, which must include the following courses: [BIOA01H3](#), [BIOA02H3](#), [CHMA10H3](#), [CHMA11H3](#), and [[MATA29H3](#) or [MATA30H3](#) or [MATA35H3](#) or [MATA36H3](#)]; students must also have achieved a cumulative GPA of at least 2.75.

~~Students must also submit a formal application to the department to be considered for the program. This includes a one-page statement for why they are suitable candidates to take the program. Short-listed students will be invited to an oral interview to determine interest and eligibility.~~

### *Current Co-op Students:*

Students admitted to a Co-op Degree Program in their first year of study (i.e. Life Sciences Co-op) may request this Co-op Subject POST on ACORN only after completion of 4.0 credits; in addition, students must meet the minimum enrolment requirements for entry as noted above for this program. ~~Students must also submit a formal application to the department to be considered for the program. This includes a one-page statement for why they are suitable candidates to take the program. Short-listed students will be invited to an oral interview to determine interest and eligibility.~~

### *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. ~~Students must also submit a formal application to the~~

department to be considered for the program. This includes a one-page statement for why they are suitable candidates to take the program. Short-listed students will be invited to an oral interview to determine interest and eligibility.

## Academic Program Requirements

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

### A. Required Courses

#### *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 and [MATA35H3](#) Calculus II for Biological Sciences] or

[[MATA30H3](#) Calculus I for Physical Sciences and [MATA36H3](#) Calculus II for Physical Sciences]

#### 4. 0.5 Credit in Physics

Choose from:

[PHYA10H3](#) Physics I for the Physical Sciences

[PHYA11H3](#) Physics I for the Life Sciences

#### 5. 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)

#### *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

[BIOB52H3](#) Ecology and Evolutionary Biology Laboratory

## 8. 0.5 Credit in Statistics

Choose from:

[STAB22H3](#) Statistics I

[PSYB07H3](#) Data Analysis in Psychology

*Third Year*

## 9. 2.5 Credits of C-level Ecology and Evolution Foundation Courses

[BIOC16H3](#) Evolutionary Genetics and Genomics

[BIOC50H3](#) Macroevolution

[BIOC52H3](#) Field Ecology

[BIOC61H3](#) Community Ecology and Environmental Biology

[BIOC63H3](#) Conservation Biology

*Third/Fourth Year*

10. 4.0 credits of C- & D-level courses from Bins 1 and 2 below. This must include at least 1.0 credit from each bin and at least 1.0 credit total at the D-level.

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

Choose from:

[BIOC29H3](#) Introductory Mycology

[BIOC51H3](#) Tropical Biodiversity Field Course

[BIOC58H3](#) Biological Consequences of Global Change

[BIOC60H3](#) Winter Ecology

[BIOC65H3](#) Environmental Toxicology

[BIOD25H3](#) Genomics

[BIOD52H3](#) Biodiversity and Conservation

[BIOD54H3](#) Applied Conservation Biology

[BIOD55H3](#) Experimental Animal Behaviour

[BIOD59H3](#) Models in Ecology, Epidemiology and Conservation

[BIOD60H3](#) Spatial Ecology

[BIOD62H3](#) Symbiosis: Interactions Between Species

[BIOD63H3](#) From Individuals to Ecosystems: Advanced Topics in Ecology

[BIOD66H3](#) Causes and Consequences of Biodiversity

[BIOD67H3](#) Inter-University Biology Field Course

[EESC04H3](#) Biodiversity and Biogeography

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

Choose from:

[BIOC37H3](#) Plants: Life on the Edge

[BIOC40H3](#) Plant Physiology

[BIOC54H3](#) Animal Behaviour

[BIOC59H3](#) Advanced Population Ecology

[BIOC62H3](#) Role of Zoos and Aquariums in Conservation

[BIOD26H3](#) Fungal Biology & Pathogenesis

[BIOD34H3](#) Conservation Physiology

[BIOD37H3](#) Biology of Plant Stress

[BIOD43H3](#) Animal Movement and Exercise



[BIOD45H3](#) Animal Communication

[BIOD48H3](#) Ornithology

[BIOD53H3](#) Special Topics in Animal Behaviour

[EESC30H3](#) Environmental Microbiology

[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.

### **B. Senior Research Courses (optional)**

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

[BIOD95H3](#) Supervised Study in Biology

[BIOD98Y3](#) Directed Research in Biology

[BIOD99Y3](#) Directed Research in Biology

### **Co-op Work Term Requirements**

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term.

1. To be eligible for the first work term (COPB36H3), students must be enrolled in the Specialist (Co-operative) program in Conservation and Biodiversity and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.
2. To be eligible for the second and third work terms (COPC36H3), students must have completed at least 10.0 credits, including [BIOB50H3](#) and [BIOB51H3](#).

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 requires that students take courses during at least one Summer semester.

~~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.~~

### **Co-op ~~Preparation~~ Course Requirements:**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC36H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op

Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC36H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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

## Specialist (Co-operative) Program in Molecular Biology and Biotechnology

**Academic Program Supervisor/Advisor:** [molecular-biology-biotechnology@utsc.utoronto.ca](mailto:molecular-biology-biotechnology@utsc.utoronto.ca)

**Co-op Contact:** [askcoop@utoronto.ca](mailto:askcoop@utoronto.ca) **Contact**

**Program + Co-op Program Co-ordinator:** [askcoop@utoronto.ca](mailto:askcoop@utoronto.ca) [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

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

The co-op option of the Molecular Biology and Biotechnology program complements and punctuates academic course work with full-time work terms in research laboratories, government, health care, or in public or private industry. These **work terms placements** help students define and refine their career and/or professional school goals. For information on admissions, fees, work terms and standing in the Program, please see the [6B.5 Co-operative Programs](#) section or the [Arts and Science Co-op](#) section in this *Calendar*.

*Note:* This program was formerly known as the Specialist Co-operative in Cell and Molecular Biology (BSc).

### Enrolment Requirements

The minimum qualifications for entry are 7.0 credits, which must include the following courses: [BIOA01H3](#), [BIOA02H3](#), [CHMA10H3](#), [CHMA11H3](#), [[MATA29H3](#) and [MATA35H3](#)], or [[MATA30H3](#) and [MATA36H3](#)], [[PHYA10H3](#) or [PHYA11H3](#)]; and a cumulative GPA of at least 2.75.

*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.

**Academic 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 Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. 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 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. Completion of BIOB10H3, BIOB11H3, BIOB12H3, CHMB41H3 and CHMB42H3 are strongly recommended prior to second work term.

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 requires that students take courses during at least one Summer semester.

### Co-op Course Requirements

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC30H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students

for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC30H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

# Computer and Mathematical Sciences

## Major (Co-operative) Program in Computer Science

Supervisor of Studies: R. Pancer (416-287-7679) E-mail: [richard.pancer@utoronto.ca](mailto:richard.pancer@utoronto.ca)

Academic Program Advisor: S. Calanza [susan.calanza@utoronto.ca](mailto:susan.calanza@utoronto.ca)

Co-op Program Coordinator: C. Dixon Email: [coopsuccess.utscc@utoronto.ca](mailto:coopsuccess.utscc@utoronto.ca)

The Major (Co-op) Program in Computer Science is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Computer Science upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

Enrolment in the Major (Co-operative) Program in Computer Science is limited.

#### *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. Students must have completed the required A-level CSC and MAT courses, and achieved the required grades, described in the Enrolment Requirements for the Major in Computer Science. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

#### *Prospective Co-op Students:*

Prospective students (i.e., those not yet admitted to a Co-op Degree POST) must meet the enrolment requirements noted above and have a CGPA of at least 2.75 across all attempted courses.

Students must submit a program request on ACORN. 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 the student's application not being considered.

### Academic Program Requirements

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

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

### Co-op Work Term Requirements

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Computer Science and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC03H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC03H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## **Specialist (Co-operative) Program in Mathematics**

Academic Program Advisor: S. Calanza [susan.calanza@utoronto.ca](mailto:susan.calanza@utoronto.ca)

Co-op Program Coordinator: C. Dixon [coopsuccess.utscc@utoronto.ca](mailto:coopsuccess.utscc@utoronto.ca) The Specialist (Co-operative) Program in Mathematics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Mathematics upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.



The **Comprehensive Stream** provides a broad and deep knowledge of mathematics at the undergraduate level. It is the recommended program for students who plan to pursue graduate study in mathematics, but it is also suitable for other career paths.

The **Statistics Stream** provides greater exposure to statistics, and the areas of mathematics most closely associated with it. This stream prepares students for careers in industry, or for graduate study in certain mathematically-oriented subjects, including statistics and financial mathematics.

The **Teaching Stream** is intended for students with a serious interest in mathematics but whose career objectives lie in mathematics education at the elementary or secondary level.

## **Enrolment Requirements**

Enrolment in the Specialist (Co-operative) Program in Mathematics is limited. **Students may apply to enter the program after completing 4.0 credits, and must meet the requirements described below:**

### **1. Students already admitted to the UTSC Year 1 Mathematics admissions category:**

*Required Courses:*

Students must have passed the following CSC and MAT courses: [[CSCA08H3](#) or [CSCA20H3](#)], [[CSCA67H3](#) or [MATA67H3](#)], [MATA22H3](#), [MATA31H3](#), and [MATA37H3](#).

*Required Grades:*

Students that meet all of the following requirements will be admitted to a Mathematics Specialist POST\* of their choice:

- a. A cumulative grade point average (CGPA) of at least 2.5 over the following courses: CSC/MATA67H, [MATA22H3](#), [MATA31H3](#), and [MATA37H3](#); and
- b. A final grade of at least B in two of the following: CSC/[MATA67H3](#), [MATA22H3](#), and [MATA37H3](#).

\*Students must select one stream of the Mathematics Specialist.

### **2. Students admitted to other UTSC Year 1 admissions categories:**

Students that have been admitted to other CMS admissions categories (Computer Science or Statistics) or any other of the UTSC Year 1 admissions categories are eligible to apply for a Mathematics Specialist POST. Admission will be based on academic performance in the required A-level courses, identified above. The admission requirements change each year depending on available spaces and the pool of eligible applicants, and students are cautioned that there is no guarantee of admission; as such, students are strongly advised to plan to enroll in backup programs.

For more information about the admission requirements, please visit the following [CMS webpage](#).

*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. Students must have completed the required A-level CSC and MAT courses, and achieved the required grades, described in the Enrolment Requirements for the Specialist in Mathematics. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

*Prospective Co-op Students:*

Prospective students (i.e., those not yet admitted to a Co-op Degree POST) must meet the enrolment requirements noted above and have a CGPA of at least 2.5 across all attempted courses.

Students must submit a program request on ACORN. 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 the student's application not being considered.

### **Academic Program Requirements**

Students must complete the program requirements as described in the Specialist Program in Mathematics.

### **Co-op Work Term Requirements**

Students must satisfactorily complete Co-op work term(s), as follows: **three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term.** To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Mathematics and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC01H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC01H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

# Major (Co-operative) Program in Mathematics

Academic Program Advisor: S. Calanza [susan.calanza@utoronto.ca](mailto:susan.calanza@utoronto.ca)

Co-op Program Coordinator: C. Dixon [coopsuccess.utsoc](mailto:coopsuccess.utsoc)

The Major (Co-op) Program in Mathematics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Mathematics upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

## Enrolment Requirements

Enrolment in the Major (Co-operative) Program in Mathematics is limited.

### *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. Students must have completed the required A-level CSC and MAT courses, and achieved the required grades, described in the Enrolment Requirements for the Major in Mathematics. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

### *Prospective Co-op Students:*

Prospective students (i.e., those not yet admitted to a Co-op Degree POST) must meet the enrolment requirements noted above and have a CGPA of at least 2.5 across all attempted courses.

Students must submit a program request on ACORN. 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 the student's application not being considered.

## Academic Program Requirements

Students must complete the program requirements as described in the Major Program in Mathematics.

## Co-op Work Term Requirements

Students must satisfactorily complete Co-op work term(s), as follows: **three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term.** To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Mathematics and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses during at least one Summer semester.

## Co-op Course Requirements

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)

- Co-op Work Term courses: COPC01H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC01H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Specialist (Co-operative) Program in Statistics

Academic Program Advisor: S. Calanza [susan.calanza@utoronto.ca](mailto:susan.calanza@utoronto.ca)

Co-op Program Coordinator: C. Dixon [coopsuccess.utscc@utoronto.ca](mailto:coopsuccess.utscc@utoronto.ca)

The Specialist (Co-operative) Program in Statistics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Statistics upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

Enrolment in the Specialist (Co-operative) Program in Statistics is limited.

#### *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. Students must have completed the required A-level CSC and MAT courses, and achieved the required grades, described in the Enrolment Requirements for the Specialist in Statistics. In addition, they must also have received a CGPA of at least 2.5 across all attempted courses.

### *Prospective Co-op Students:*

Prospective students (i.e., those not yet admitted to a Co-op Degree POST) must meet the enrolment requirements noted above and have a CGPA of at least 2.75 across all attempted courses.

Prospective students must request the Co-op program on ACORN. Request deadlines follow the Limited Enrolment Program Application Deadlines set by the [Office of the Registrar](#) each year. Failure to make the program request on ACORN will result in the student's application not being considered.

### **Academic Program Requirements**

Students must complete the program requirements as described in the Specialist Program in Statistics.

### **Co-op Work Term Requirements**

Students must satisfactorily complete Co-op work term(s), as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Statistics and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC01H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC01H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

# Major (Co-operative) Program in Statistics

Academic Program Advisor: S. Calanza [susan.calanza@utoronto.ca](mailto:susan.calanza@utoronto.ca)

Co-op Program Coordinator: C. Dixon [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Major (Co-op) Program in Statistics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Statistics upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

## Enrolment Requirements

Enrolment in the Major (Co-operative) Program in Statistics is limited.

### *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. Students must have passed the required A-level CSC and MAT courses, and achieved the required grades, described in the Enrolment Requirements for the Major in Statistics. In addition, they must also have achieved a CGPA of at least 2.5 across all attempted courses.

### *Prospective Co-op Students:*

Prospective students (i.e., those not yet admitted to a Co-op Degree POST) must meet the enrolment requirements noted above and have a CGPA of at least 2.5 across all attempted courses.

Students must submit a program request on ACORN. 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 the student's application not being considered.

## Academic Program Requirements

Students must complete the program requirements as described in the Major Program in Statistics.

## Co-op Work Term Requirements

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Statistics and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50 and COPB51.

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 requires that students take courses during at least one Summer semester.

## Co-op Course Requirements

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC01H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC01H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

# Department of Physical and Environmental Sciences

## Major (Co-operative) Program in Biochemistry

Academic Program Supervisor of Studies: S. Dalili (416-287-7215) Email: [sdalili@utsc.utoronto.ca](mailto:sdalili@utsc.utoronto.ca)

Co-op Program Coordinator: [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Major (Co-op) Program in Biochemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Biochemistry upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

**Note:** This program cannot be combined with the Major/Major Co-op programs in Chemistry, or the Major/Major Co-op programs in Environmental Chemistry.

### Enrolment Requirements

The minimum qualifications for entry are 4.0 credits, including [BIOA01H3](#), [BIOA02H3](#), [CHMA10H3](#), [CHMA11H3](#), [[MATA29H3](#) or [MATA30H3](#)] and [[MATA35H3](#) or [MATA36H3](#)], plus a cumulative GPA of at least 2.5.

### *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.

### Academic Program Requirements

Students must complete the program requirements as described in the Major Program in Biochemistry.

### Co-op Work Term Requirements

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Biochemistry and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is strongly recommended that CHMB16H3 and [BIOB12H3](#) be completed prior to the first work term.

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 requires that students take courses during at least one Summer semester.



### Co-op Course Requirements

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Specialist (Co-operative) Program in Biological Chemistry

Academic Program Supervisor of Studies: S. Dalili (416-287-7215) Email:

Co-op Program Coordinator: [coopsuccess.utscc@utoronto.ca](mailto:coopsuccess.utscc@utoronto.ca)

The Specialist (Co-op) Program in Biological Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Biological Chemistry upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

The minimum qualifications for entry are 3.5 credits, including [BIOA01H3](#), [BIOA02H3](#), [CHMA10H3](#), [CHMA11H3](#), [MATA30H3](#), [[MATA35H3](#) or [MATA36H3](#)], and [PHYA10H3](#), plus a cumulative GPA of at least 2.5.

*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.

#### **Academic Program Requirements**

Students must complete the program requirements as described in the Specialist Program in Biological Chemistry.

#### **Co-op Work Term Requirements**

Students must satisfactorily complete three Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Biological Chemistry and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is strongly recommended that CHMB16H3 and [BIOB12H3](#) be completed prior to the first work term.

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 requires that students take courses during at least one Summer semester.

#### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Specialist (Co-operative) Program in Chemistry

Academic Program Supervisor of Studies: S. Dalili (416-287-7215) Email: [sdalili@utsc.utoronto.ca](mailto:sdalili@utsc.utoronto.ca)

Co-op Program Coordinator: [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Specialist (Co-op) Program in Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Chemistry upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

The minimum qualifications for entry are 4.0 credits, including [CHMA10H3](#), [CHMA11H3](#), [MATA30H3](#), [MATA36H3](#), [PHYA10H3](#) and [PHYA21H3](#), plus a cumulative GPA of at least 2.5.

### *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.

### Academic Program Requirements

Students must complete the program requirements as described in the Specialist Program in Chemistry.

### Co-op Work Term Requirements

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Chemistry and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is strongly recommended that [CHMB16H3](#) be completed before the first work term.

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 requires that students take courses during at least one Summer semester.

### Co-op Course Requirements

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Major (Co-operative) Program in Chemistry

Academic Program Supervisor of Studies: S. Dalili (416-287-7215) Email: [sdalili@utsc.utoronto.ca](mailto:sdalili@utsc.utoronto.ca)  
Co-op Program Coordinator: [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Major (Co-op) Program in Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Chemistry upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

**Note:** This program cannot be combined with the Major/Major Co-op programs in Biochemistry or the Major program in Environmental Chemistry.

### Enrolment Requirements

The minimum qualifications for entry are 4.0 credits, including [CHMA10H3](#), [CHMA11H3](#), [MATA30H3](#),

[MATA36H3](#), [PHYA10H3](#) and [PHYA21H3](#), plus a cumulative GPA of at least 2.5.

*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.

**Academic Program Requirements**

Students must complete the program requirements as described in the Major Program in Chemistry.

**Co-op Work Term Requirements**

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Chemistry and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is strongly recommended that [CHMB16H3](#) be completed before the first work term.

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 requires that students take courses during at least one Summer semester.

**Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Specialist (Co-operative) Program in Environmental Chemistry

Co-op Program Coordinator: [coopsuccess.utscc@utoronto.ca](mailto:coopsuccess.utscc@utoronto.ca)

The Specialist (Co-op) Program in Environmental Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Chemistry upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

The minimum qualifications for entry are 4.5 credits, including, [BIOA01H3](#), [BIOA02H3](#), [CHMA10H3](#), [CHMA11H3](#), [EESA01H3](#), [EESA06H3](#), [MATA30H3](#), [[MATA35H3](#) or [MATA36H3](#) or [MATA37H3](#)] and [PHYA10H3](#), plus a cumulative GPA of at least 2.5.

### *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.

### Academic Program Requirements

Students must complete the program requirements as described in the Specialist Program in Environmental Chemistry.

### Co-op Work Term Requirements

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Environmental Chemistry and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is strongly recommended that [CHMB16H3](#) be completed before the first work term.

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 requires that students take courses

during at least one Summer semester.

### Co-op Course Requirements

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Major (Co-operative) Program in Environmental Chemistry

For an updated list of Academic Program Supervisors, please visit the [Chemistry website](#).  
Co-op Program Coordinator: [coopsuccess.utscc@utoronto.ca](mailto:coopsuccess.utscc@utoronto.ca)

The Major (Co-op) Program in Environmental Chemistry is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Chemistry upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### **Enrolment Requirements**

The minimum qualifications for entry are 4.0 credits, including: [CHMA10H3](#), [[CHMA11H3](#) or [CHMA12H3](#)], [MATA30H3](#), [MATA36H3](#), [EESA01H3](#), and 0.5 credit from: [[EESA06H3](#), [EESA07H3](#), [EESA11H3](#)], plus a cumulative GPA of at least 2.5.

#### *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:*

Students must request the Co-op program on ACORN. Submission deadlines follow the Limited Enrolment Program Application Deadlines set by the [Office of the Registrar](#) each year. Failure to make the program request on ACORN will result in the student's application not being considered.

### **Academic Program Requirements**

Students must complete the program requirements as described in the Major Program in Environmental Chemistry.

### **Co-op Work Term Requirements**

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Major(Co-op) Program in Environmental Chemistry and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is strongly recommended that [CHMB16H3](#) be completed before the first work term.

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 requires that students take courses during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.



Co-op courses 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.

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.

## Specialist (Co-operative) Program in Environmental Geoscience

Co-op Program Coordinator: [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Specialist (Co-op) Program in Environmental Geoscience is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Geoscience upon graduation.

This program has been designed to meet the expectations of the Association of Professional Geoscientists of Ontario (APGO) - the licensing and regulatory body responsible for ensuring that geoscientists have the appropriate qualifications to practice. Please visit the APGO website for further information on requirements to become a Professional Geoscientist (P.Ge) in Ontario.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

The minimum qualifications for entry are 5.0 credits, including [BIOA01H3](#), [BIOA02H3](#), [CHMA10H3](#), [CHMA11H3](#), [EESA01H3](#), [EESA06H3](#), [MATA30H3](#), [[MATA36H3](#) or [MATA37H3](#)], [PHYA10H3](#) and [PHYA21H3](#), plus a cumulative GPA of at least 2.5.

### *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.

### Academic Program Requirements

Students must complete the program requirements as described in the Specialist Program in Environmental Geoscience.

### Co-op Work Term Requirements

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must

be enrolled in the Specialist (Co-op) Program in Environmental Geoscience and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## **Specialist (Co-operative) Program in Environmental Physics**

Co-op Program Coordinator: [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Specialist (Co-op) Program in Environmental Physics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Physics upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### **Enrolment Requirements**

The minimum qualifications for entry are 3.5 credits, including [CHMA10H3](#), [CHMA11H3](#), [EESA06H3](#), [MATA30H3](#), [[MATA36H3](#) or [MATA237H3](#)], [PHYA10H3](#) and [PHYA21H3](#), plus a cumulative GPA of at least 2.5.

#### *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.

### **Academic Program Requirements**

Students must complete the program requirements as described in the Specialist Program in Environmental Physics.

### **Co-op Work Term Requirements**

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Environmental Physics and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Major (Co-operative) Program in Environmental Science

Co-op Program Coordinator: [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca) [askcoop@utoronto.ca](mailto:askcoop@utoronto.ca)

The Major (Co-op) Program in Environmental Science is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Science upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

The minimum qualifications for entry are 4.0 credits, including, [BIOA01H3](#), [BIOA02H3](#), and [EESA06H3](#), plus a cumulative GPA of at least 2.5.

### *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.

### Academic Program Requirements

Students must complete the program requirements as described in the Major Program in Environmental Science.

### Co-op Work Term Requirements

Students must satisfactorily complete Co-op work terms as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Environmental Science and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses during at least one Summer semester.

### Co-op Course Requirements

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Specialist (Co-operative) Program in Global Environmental Change

Co-op Program Coordinator: [coopsuccess.utscc@utoronto.ca](mailto:coopsuccess.utscc@utoronto.ca)

The Specialist (Co-op) Program in Global Environmental Change is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Environmental Biology upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

The minimum qualifications for entry are 4.5 credits, including [BIOA01H3](#), [BIOA02H3](#), [CHMA10H3](#), [CHMA11H3](#),

[EESA01H3](#), [EESA06H3](#), [MATA30H3](#), [[MATA35H3](#) or [MATA36H3](#) or [MATA37H3](#)] and [[PHYA10H3](#) or [PHYA11H3](#)], plus a cumulative GPA of at least 2.5.

*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.

**Academic Program Requirements**

Students must complete the program requirements as described in the Specialist Program in Global Environmental Change.

**Co-op Work Term Requirements**

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Specialist (Co-op) Program in Global Environmental Change and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses during at least one Summer semester.

**Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC05H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC05H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

# Department of Health & Society

## Major (Co-operative) Program in Health Studies – Population Health

Co-op Contact: [askcoop@utoronto.ca](mailto:askcoop@utoronto.ca)

The Major (Co-op) Program in Health Studies - Population Health is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Population Health upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

The minimum qualifications for entry are 4.0 credits, including [HLTA02H3](#) and [HLTA03H3](#), plus a cumulative GPA of at least 2.5.

#### *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.

### Program Requirements

Students must complete the program requirements as described in the Major Program in Health Studies - Population Health.

**Note:** the Major/Major (Co-op) Program in Health Studies - Population Health (B.Sc.) and Major/Major (Co-op) Program in Health Studies - Health Policy (B.A.) cannot be combined.

### Co-op Work Term Requirements

Students must satisfactorily complete Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Major (Co-op) Program in Health Studies - Population Health and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3.

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 requires that students take courses



during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC40H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC40H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

# Department of Languages

## Specialist (Co-operative) Program in Psycholinguistics

Co-op Program Coordinator: [coopsuccess.uts@utoronto.ca](mailto:coopsuccess.uts@utoronto.ca)

The Specialist (Co-op) Program in Psycholinguistics is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Psycholinguistics upon graduation. In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### Enrolment Requirements

The minimum qualifications for entry are 4.0 credits, including [LINA01H3](#) and [LINA02H3](#), plus a cumulative GPA of at least 2.5.

#### *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.

### Academic Program Requirements

Students must complete the program requirements as described in the Specialist Program in Psycholinguistics.

### 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 Psycholinguistics and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is strongly recommended that [LINB06H3](#) and [LINB09H3](#) be completed before the first work term.

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 requires that students take courses during at least one Summer semester.

### Co-op Course Requirements

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)

- Co-op Work Term courses: COPC40H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC40H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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

# Department of Psychology

## Specialist (Co-operative) Program in Mental Health Studies

Academic Program Advisor: A. Lawson [psychundergrad.utscc@utoronto.ca](mailto:psychundergrad.utscc@utoronto.ca)

Co-op Program Coordinator: C. Dixon [coopsuccess.utscc@utoronto.ca](mailto:coopsuccess.utscc@utoronto.ca)

The Specialist (Co-op) Program in Mental Health Studies is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Mental Health upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### 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 [[PSYB07H3](#) or equivalent] and [PSYB70H3](#).

### *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.

### 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

[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](#)

[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

[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 expect of PSYD98Y3. Student 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 Health 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 Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. 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 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is strongly recommended that [PSYB07H3](#), [PSYB32H3](#), and [PSYB70H3](#) be completed before the first work term, and [PSYB55H3](#), [PSYC02H3](#), [[PSYC08H3](#) or [PSYC09H3](#)], and [PSYC73H3](#) be completed before the second work term.

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 requires that students take courses during at least one Summer semester.

**Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC40H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC40H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## Specialist (Co-operative) Program in Psychology

Academic Program Advisor: A. Lawson [psychundergrad.utsc@utoronto.ca](mailto:psychundergrad.utsc@utoronto.ca)

Co-op Program Coordinator: C. Dixon [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Specialist (Co-op) Program in Psychology is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Psychology upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### 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 [[PSYB07H3](#) or equivalent] and [PSYB70H3](#).

### *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.

**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

[PSYC70H3](#) Advanced Research Methods Laboratory

and 0.5 credit from among the following:

[PSYC71H3](#)

[PSYC72H3](#)

[PSYC74H3](#)

[PSYC75H3](#) Cognitive Psychology Laboratory

[PSYC76H3](#)

**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 Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. 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 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is recommended that PSYB07H3 and [PSYB70H3](#) be completed before the first work term, and [PSYC02H3](#) and [[PSYC08H3](#) or [PSYC09H3](#)] be completed before the second work term.

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 requires that students take courses during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC40H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses (COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC40H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.

## **Specialist (Co-operative) Program in Neuroscience**

Academic Program Advisor: A. Lawson [psychundergrad.utsc@utoronto.ca](mailto:psychundergrad.utsc@utoronto.ca)

Co-op Program Coordinator: C. Dixon [coopsuccess.utsc@utoronto.ca](mailto:coopsuccess.utsc@utoronto.ca)

The Specialist Program in Neuroscience is a research-intensive program designed to provide students with strong breadth in the major domains of neuroscience, as well as an opportunity to intensively focus on one of three streams. This is a Work Integrated Learning (WIL) program that combines academic studies with paid work terms in the public, private, and/or non-profit sectors. The program provides students with the opportunity to develop the academic and professional skills required to pursue employment in these areas, or to continue on to graduate training in an academic field related to Neuroscience upon graduation.

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

Students will choose one of the following three streams:

A. **Systems/Behavioural:** this stream examines the neural mechanisms underlying behaviour and how brain circuits work together to analyze external stimuli, internal biological states, and past experiences in order to coordinate appropriate responses, predominantly through the use of *in vivo* approaches in behaving subjects (e.g., optogenetics, chemogenetics).

B. **Cellular/Molecular:** this stream explores the nervous system at its most fundamental level, investigating the influence of genes, signalling molecules, and cellular morphology on the development and maintenance of brain function, predominantly through the use of *in vitro* techniques (e.g., immunohistochemistry, patch clamp).

C. **Cognitive:** this stream focuses on understanding the neural basis of human cognition (e.g., language, memory, attention, decision-making) predominantly through the use of patient neuropsychology and neuroimaging techniques (e.g., magnetic resonance imaging (MRI), electroencephalography (EEG)).

In addition to their academic course requirements, students must successfully complete the additive Arts & Science Co-op Work Term and Course requirements.

### **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. 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.

**Academic 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 Co-op work term(s) as follows: three 4-month work terms, one 4-month work term and one 8-month work term, or one 12-month work term. To be eligible for their first work term, students must be enrolled in the Specialist Co-op Program in Neuroscience, and have completed at least 7.0 credits, achieve a cumulative GPA of 2.5 or higher, and complete COPB50H3 and COPB51H3. It is recommended that [NROB60H3](#), [[PSYB07H3](#) or [STAB22H3](#)], and [PSYB70H3](#) be completed before the first work term. The following additional courses are recommended to be completed before the second work term:

- For the Systems/Behavioural and Cellular/Molecular streams: BIOB10H3, [BIOB11H3](#), [BIOB12H3](#), CHMB41H3, NROB61H3, and PSYB55H3

For the Cognitive stream: BIOB11H3, NROB61H3, PSYB55H3, [PSYC02H3](#), and [[PSYC08H3](#) or [PSYC09H3](#)], and PSYC70H3

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 requires that students take courses during at least one Summer semester.

### **Co-op Course Requirements**

In addition to their academic program requirements, Co-op students complete the following Co-op specific courses as part of their degree:

- Co-op Preparation courses: COPB50H3 and COPB51H3 (completed in first year)
- Work Term Search courses: COPB52H3 (semester prior to first work term), COPC98H3 (semester prior to second work term), and COPC99H3 (semester prior to third work term)
- Co-op Work Term courses: COPC40H3 (each semester a student is on work term)

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 must be completed in sequence, and fall into three categories: Co-op Preparation courses (COPB50H3 & COPB51H3) are completed in first year, and cover a variety of topics intended to assist students in developing the skills and tools required to secure a work term; Work Term Search Courses



(COPB52H3, COPC98H3, & COPC99H3) are completed in the semester prior to each work term, and support students while competing for work terms that are appropriate to their program of study, as well as preparing students for the transition into and how to succeed the workplace; Co-op Work Term courses (COPC40H3) are completed during each semester that a student is on work term, and support students' success while on work term, as well as connecting their academics and the workplace experience.

Co-op courses 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.

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*.