

# Senate Graduate Council

## Open Session

January 21, 2026

10:00 a.m. - 11:30 a.m.

Needles Hall

NH 3318

Waterloo Campus

Think Differently | Act with Purpose | Work Together

## 2026 01 21 Senate Graduate Council Meeting Book

### AGENDA

	1. Governance Resources		
	<a href="#">1.1. Link to Governance Resources</a>		
10:00 a.m.	2. Approval of the Agenda		
	2.1. Conflict of Interest		
	2.2. Approval of the Agenda and Consent Items	Decision	3
	2.3. Business Arising from the Minutes	Information	
	3. Consent Agenda		
	3.1. Minutes of the November 17, 2025 Meeting	Decision	4
	3.2. Curricular Submissions		
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	4. Regular Agenda		
10:05 a.m.	5. Chair’s Remarks [Wan]	Information	
10:10 a.m.	6. Curricular Submissions		
	6.1. Faculty of Arts	Decision	114
	6.2. Faculty of Environment	Decision	158
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10:25 a.m.	7. Faculty of Environment – Joint Education Institutes [Rowlands, Wickens, & Wilson]		
	7.1. Joint Education Institutes	Discussion	200
10:35 a.m.	8. Student Academic Disability Accommodations Policy [Brown & Gillies]		
	8.1. Student Academic Disability Accommodations Policy	Discussion	202
10:55 a.m.	9. Senate Academic Innovation Committee [Abukhdeir]		
	9.1. Senate Academic Innovation Committee	Information	226
11:15 a.m.	10. Items Removed from the Consent Agenda		
11:20 a.m.	11. Other Business		
	12. Adjournment		
	The next SGC meeting is scheduled on March 3, 2026.		

**For Approval**

**Open Session**

**To:** Senate Graduate Council

**From:** Tony Ly  
Governance Officer

**Date of Meeting:** January 21, 2026

**Agenda Item:** **2. Approval of the Agenda**

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### **2.1. Conflict of Interest**

Members are invited to declare any conflicts related to the open session agenda at this time. Should a conflict of interest arise during discussion, members are asked to declare a conflict of interest as it arises. Information and guidance on conflicts of interest is provided on the Secretariat [website](#).

The Secretariat can provide guidance regarding potential conflicts of interest in advance of or during the meeting.

### **2.2. Approval of the Agenda and Approval of the Consent Agenda**

**Motion:** To approve the agenda as presented/amended, and to approve or receive for information the items on the consent agenda, listed as items 3.1 – 3.4.

Members wishing to have an item removed from consent to the regular agenda are asked to contact the Secretariat in advance of the meeting. Members may also request to have items moved to the regular agenda immediately prior to the approval of the agenda.

### **2.3. Business Arising from the Minutes**

Senate Graduate Council (SGC) on November 17, 2025 and Senate Undergraduate Council (SUC) on December 9, 2025 recommended that Senate approve the creation of the Senate Alternative Credentials Committee (SACC). Feedback provided from both SGC and SUC will be incorporated in the revised SACC proposal.

**University of Waterloo**  
**SENATE GRADUATE COUNCIL**  
**Minutes of the November 17, 2025 Meeting**

**Present:** Mike Beazely, Steven Bednarski, Helen Chen, Alison Hitchens, Rob de Loë, Brian Ingalls, Brian Laird, Christiane Lemieux, Tony Ly [Secretary], Carter Neal, Christopher Nielsen, Brad Pomeroy, Ian Rowlands, Meray Sadek, Justin Wan [Chair], Clarence Woudsma

**Resources/Guests:** Angela Christelis, David DeVidi, Carrie MacKinnon Molson, Marianne Simm

**Regrets:** David Clausi, Charmaine Dean, Tom Duever, Vivek Goel, Abhishesh Homagain, Lilhac Medina, Tizazu Mekonnen, Nicholas Pelligrino

**Organization of Meeting:** Justin Wan took the chair and Tony Ly acted as secretary. The secretary advised that quorum was present.

## **1. Governance Resources**

## **2. Consent Agenda**

### **3. Approval of the Agenda and the Minutes**

Council heard a motion to approve or receive for information the items of the consent agenda. Pomeroy and Beazeley. Carried.

#### **3.1. Conflict of Interest**

No conflicts of interest were declared.

#### **3.2. Approval of the Agenda and Consent Items**

Council approved the agenda as distributed.

#### **3.3. Minutes of the October 23, 2025 Meeting**

Council approved the minutes of the meeting as distributed.

#### **3.4. Business Arising from the Minutes**

The Chair noted that information from the graduate funding presentation is confidential and will not be distributed. Members are welcome to contact the Chair with any questions.

## **4. Graduate Awards and Scholarships**

Council received for information and approved all new awards and scholarships.

## **5. Curricular Submissions**

Council approved all curricular submissions items 5.1 – 5.3 on behalf of Senate.

## **6. Regular Agenda**

## **7. Char's Remarks**

The Chair noted that the next meeting on January 13, 2026 will be the joint meeting with the Senate Research and Innovation Council.

## **8. Curricular Submissions**

### **8.1. Faculty of Engineering**

Nielsen presented the proposal from the Faculty of Engineering. Members discussed the changes to course requirement and specialization. Nielsen mentioned that 1 out of 3 Master students are taking a specialization.

A motion was heard to recommend that Senate approve the major modifications to the Master of Engineering (MEng) in Chemical Engineering and the Master of Engineering (MEng) in Electrical and Computer Engineering programs, effective May 1, 2026, as presented. Nielsen and Lemieux. Carried.

## **8.2. Faculty of Health**

Laird presented the proposal from the Faculty of Health that outlines the name change from Master of Arts (MA) in Recreation and Leisure Studies to Master of Arts (MA) in Sport and Recreation Leadership. Beyond the name change, there are no other changes being proposed. No courses are being changed, the existing thesis option is not being altered, and there are no changes to the learning outcomes.

A motion was heard to recommend that Senate approve the major modifications to the Master of Arts (MA) in Recreation and Leisure Studies program, effective May 1, 2026, as presented. Laird and Beazeley. Carried.

## **9. Senate Alternative Credentials Committee**

DeVidi presented a framework for the Senate Alternative Credentials Committee (SACC). Historical context for the creation of the Alternative Credentials Approval Committee (ACAC) was provided. SACC will operate similar to ACAC and report to Senate annually. Council members recommended adding students and Affiliated and Federated Institutions of Waterloo (AFIW) members on SACC. The Terms of Reference should specify that Senate Undergraduate Council and Senate Graduate Council will still have oversight over courses for credits. The structure and processes of WatsPEED need to be clearer. Members recommended a review of the SACC Terms of Reference within 2-3 years.

A motion was heard to recommend that Senate approve the Senate Alternative Credentials Committee (SACC) proposal as presented/amended. Woudsma and de Loë. Carried.

## **10. Items removed from the Consent Agenda**

No item was removed from the consent agenda.

## **11. Other Business**

No other items of business were identified.

## **12. Adjournment**

With no further business, the meeting was adjourned. The joint meeting of the Senate Graduate Council plus Senate Research and Innovation Council is scheduled on January 13, 2026 from 3:30 p.m. to 4:30 p.m. in NH 3318. The next meeting of the Senate Graduate Council is scheduled on January 21, 2026 from 10:00 a.m. to 11:30 a.m. in NH 3318.

**Date 2025/12/02**

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## Meeting Information

**Agenda Page Title** SGC - Consent Agenda - Faculty of Arts - January 21, 2026

**Career Level**  
Graduate,

**Faculty/Unit** Arts

**Date** 2026-01-21

### Summary

**Classical Studies – Revise courses to remove department consent from GRK 610, GRK 620, LAT 610, and LAT 620.**

**Public Service – PS 614 update course title and description; PS 630 create new course titled Canadian Foreign and Defence Policy.**

**Psychology – PSYCH 827A update course description.**

## Course Proposals

**Courses: Retire** No proposals have been added.

### Courses: New

Code	Title	Type	Workflow Step
<a href="#">PS 630</a>	Canadian Foreign and Defence Policy	Courses	SGC, Senate Graduate Council (SGC)

### Courses: Changes

Code	Title	Type	Workflow Step
<a href="#">GRK 610</a>	Introductory Greek for Graduate Students	Courses	SGC, Senate Graduate Council (SGC)
<a href="#">GRK 620</a>	Intermediate Greek for Graduate Students	Courses	SGC, Senate Graduate Council (SGC)
<a href="#">LAT 610</a>	Introductory Latin for Graduate Students	Courses	SGC, Senate Graduate Council (SGC)
<a href="#">LAT 620</a>	Intermediate Latin for Graduate Students	Courses	SGC, Senate Graduate Council (SGC)
<a href="#">PS 614</a>	Communicating Policy: Genres, Audiences, and Technologies	Courses	SGC, Senate Graduate Council (SGC)
<a href="#">PSYCH 827A</a>	Applied Practicum in Industrial/Organizational Psychology I	Courses	SGC, Senate Graduate Council (SGC)

## Programs & Plans Proposals

**Programs & Plans: Retire** No proposals have been added.

**Programs & Plans: Major Modifications** No proposals have been added.

**Programs & Plans: Minor Modifications** No proposals have been added.

## Regulations Proposals

**Regulations: Retire** No proposals have been added.

**Regulations: New** No proposals have been added.

**Regulations: Changes** No proposals have been added.

**PS 630 - Canadian Foreign and Defence Policy**

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## Effective Date & Career

**Career**

Graduate,

**Effective Term and Year**

Spring 2026

## Proposal Details

**Proposal Type**

New,

**Academic Unit Approval**

2025-09-26

**Rationale for New Course**

Alexander Lanoszka has taught this course as PS 699 Special Topics – Topic 11 twice now (Winter 2024 and Fall 2025); it is time to make the course a permanent fixture in the Calendar. Given Alexander's role as director of the Master of Public Service program, the course allows him to contribute to program training and to leverage his expertise in matters relating to Canadian foreign and defence policy. It fills a gap in the Public Service course offerings because it deals explicitly with issues relating to defending national sovereignty and territorial integrity at the practical level. National Defence and Public Safety are two departments that have received additional resources as of late, and so this course may open doors for students aspiring to work at the federal level.

## Course Information

**Faculty**

Faculty of Arts

**Academic Unit**

Dean of Arts Office

**Subject Code**

PS

**Number**

630

**Title**

Canadian Foreign and Defence Policy

**Abbreviated Title**

Foreign and Defence Policy

**Description**

National Defence is the largest federal department in terms of staff size and budget, whereas Global Affairs Canada and Public Safety also enable the Government of Canada to achieve diplomatic clout, national prosperity, and homeland security. This course examines how various federal ministries, agencies, and other governmental entities conceive of the national interest and how they interact with one another in the making and implementation of foreign and defence policies.

**Units**

0.50

**Exceptions to Fees or Academic Progress Units**

No,

**Components**

LectureSeminar

**Primary Component**

Lecture

**Grading Information****Grading Basis**

Numerical Grading Basis

**Cross-Listing Information****Is this course cross-listed?**

No,

**Repeatable Courses****Can this course be repeated for credit?**

No,

**Enrolment Rules**

**Consent to Add**

Department consent required,

**Consent to Drop**

No consent required,

**Prerequisites**

No Rules

**Corequisites**

No Rules

**Antirequisites**

No Rules

**Course Notes****Workflow Information****Workflow Path**

Committee approvals,

**Faculty/AFIW Path(s) for Workflow**

Faculty of Arts

**Dependencies**

There are no dependencies

# GRK 610 - Introductory Greek for Graduate Students

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## Effective Date & Career

**Career**

Graduate,

Proposed

**Effective Term and Year**

Spring 2026

Existing

**Effective Term and Year**

Fall 2024

**Offering Number**

1

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-09-15

**Rationale for Change**

We would like to remove department consent as a requirement, as all of our graduate students are closely advised by their supervisors / mentors and the Associate Chair (or whoever will take on a similar role after the reorganization of the Faculty of Arts), to ensure level-appropriate placing in a language course.

## Course Information

**Faculty**

Faculty of Arts

**Academic Unit**

Department of Classical Studies

**Subject Code**

GRK

**Number**

610

**Title**

Introductory Greek for Graduate Students

**Abbreviated Title**

Introductory Greek

**Description**

This course is designed for students beginning the study of ancient Greek. It covers the foundational grammar of Attic and Hellenistic Greek and is the first step in preparing students to read original ancient Greek texts for the study of classical studies and religious studies. It can be chosen up to two times, as the grammar components taught change in the fall and the winter offering of this course.

**Units**

0.25

**Exceptions to Fees or Academic Progress Units**

No,

**Components**

Lecture

**Primary Component**

Lecture

**Grading Information****Grading Basis**

Numerical Grading Basis

**Cross-Listing Information****Is this course cross-listed?**

No,

**Repeatable Courses****Can this course be repeated for credit?**

Yes,

**Total Completions Allowed**

02

**Allow Multiple Enrol in a Term**

No,

## Enrolment Rules

Proposed

**Consent to Add**  
No consent required,

Existing

**Consent to Add**  
Department consent required,

**Consent to Drop**  
No consent required,

### Prerequisites

No Rules

### Corequisites

No Rules

### Antirequisites

No Rules

## Course Notes

## Workflow Information

**Workflow Path**  
Committee approvals,

**Faculty/AFIW Path(s) for Workflow**  
Faculty of Arts

## Dependencies

There are no dependencies

# GRK 620 - Intermediate Greek for Graduate Students

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## Effective Date & Career

**Career**

Graduate,

Proposed

Effective Term and Year  
Spring 2026

Existing

Effective Term and Year  
Fall 2024

**Offering Number**

1

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-09-15

**Rationale for Change**

We would like to remove department consent as a requirement, as all of our graduate students are closely advised by their supervisors / mentors and the Associate Chair (or whoever will take on a similar role after the reorganization of the Faculty of Arts), to ensure level-appropriate placing in a language course.

## Course Information

**Faculty**

Faculty of Arts

**Academic Unit**

Department of Classical Studies

**Subject Code**

GRK

**Number**

620

**Title**

Intermediate Greek for Graduate Students

**Abbreviated Title**

Intermediate Greek

**Description**

This course is a continuation of GRK 610. It will complete the initial study of ancient Greek grammar and devote some time to the reading of ancient Greek literature. Texts read will include a selection of poetry and prose in a variety of fields, including authors such as Homer, Herodotus, Euripides, Plato, the New Testament, and Josephus.

**Units**

0.25

**Exceptions to Fees or Academic Progress Units**

No,

**Components**

Lecture

**Primary Component**

Lecture

**Grading Information****Grading Basis**

Numerical Grading Basis

**Cross-Listing Information****Is this course cross-listed?**

No,

## Repeatable Courses

**Can this course be repeated for credit?**

Yes,

**Total Completions Allowed**

02

**Allow Multiple Enrol in a Term**

No,

## Enrolment Rules

Proposed

**Consent to Add**

No consent required,

Existing

**Consent to Add**

Department consent required,

**Consent to Drop**

No consent required,

### Prerequisites

No Rules

### Corequisites

No Rules

### Antirequisites

No Rules

## Course Notes

## Workflow Information

**Workflow Path**

**Faculty/AFIW Path(s) for Workflow**

Committee approvals,

Faculty of Arts

## Dependencies

There are no dependencies

# LAT 610 - Introductory Latin for Graduate Students

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## Effective Date & Career

**Career**

Graduate,

Proposed

**Effective Term and Year**

Spring 2026

Existing

**Effective Term and Year**

Fall 2024

**Offering Number**

1

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-09-15

## Rationale for Change

We would like to remove department consent as a requirement, as all of our graduate students are closely advised by their supervisors / mentors and the Associate Chair (or whoever will take on a similar role after the reorganization of the Faculty of Arts), to ensure level-appropriate placing in a language course.

## Course Information

### Faculty

Faculty of Arts

### Academic Unit

Department of Classical Studies

### Subject Code

LAT

### Number

610

### Title

Introductory Latin for Graduate Students

### Abbreviated Title

Introductory Latin

### Description

This course covers the most basic vocabulary and grammatical concepts, including several declension and conjugation patterns typically in the fall, while focusing on the use of the cases, especially the Ablative, and the various tenses typically in the winter. After taking this course, students will be able to translate simple Latin sentences.

### Units

0.25

### Exceptions to Fees or Academic Progress Units

No,

### Components

Lecture

### Primary Component

Lecture

## Grading Information

**Grading Basis**

Numerical Grading Basis

**Cross-Listing Information****Is this course cross-listed?**

No,

**Repeatable Courses****Can this course be repeated for credit?**

Yes,

**Total Completions Allowed**

02

**Allow Multiple Enrol in a Term**

No,

**Enrolment Rules**

Proposed

**Consent to Add**

No consent required,

Existing

**Consent to Add**

Department consent required,

**Consent to Drop**

No consent required,

**Prerequisites**

No Rules

**Corequisites**

No Rules

**Antirequisites**

No Rules

## Course Notes

## Workflow Information

### Workflow Path

Committee approvals,

### Faculty/AFIW Path(s) for Workflow

Faculty of Arts

## Dependencies

There are no dependencies

# LAT 620 - Intermediate Latin for Graduate Students

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## Effective Date & Career

### Career

Graduate,

Proposed

Effective Term and  
Year

Spring 2026

Existing

Effective Term and  
Year

Fall 2024

### Offering Number

1

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-09-15

**Rationale for Change**

We would like to remove department consent as a requirement, as all of our graduate students are closely advised by their supervisors / mentors and the Associate Chair (or whoever will take on a similar role after the reorganization of the Faculty of Arts), to ensure level-appropriate placing in a language course.

## Course Information

**Faculty**

Faculty of Arts

**Academic Unit**

Department of Classical Studies

**Subject Code**

LAT

**Number**

620

**Title**

Intermediate Latin for Graduate Students

**Abbreviated Title**

Intermediate Latin

**Description**

This course continues LAT 610. One offering of the course extends the concepts of the Latin cases and the complexity of the verbal structures (Accusative Infinitive, Ablative Absolute), typically taught in the fall, another concentrates on the Subjunctive and is typically taught in the winter, while a third version teaches grammar on the basis of relatively easy authors. After taking this course, students will be able to translate more complex Latin sentences.

**Units**

0.25

**Exceptions to Fees or Academic Progress Units**

No,

**Components**

Lecture

**Primary Component**

Lecture

**Grading Information****Grading Basis**

Numerical Grading Basis

**Cross-Listing Information****Is this course cross-listed?**

No,

**Repeatable Courses****Can this course be repeated for credit?**

Yes,

**Total Completions Allowed**

02

**Allow Multiple Enrol in a Term**

No,

**Enrolment Rules**

Proposed

**Consent to Add**

No consent required,

Existing

**Consent to Add**

Department consent required,

**Consent to Drop**

No consent required,

### Prerequisites

No Rules

### Corequisites

No Rules

### Antirequisites

No Rules

## Course Notes

## Workflow Information

### Workflow Path

Committee approvals,

### Faculty/AFIW Path(s) for Workflow

Faculty of Arts

## Dependencies

There are no dependencies

# PS 614 - Communicating Policy: Genres, Audiences, and Technologies

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## Effective Date & Career

**Career**

Proposed

**Offering Number**

Graduate,

**Effective Term and Year**  
Spring 2026

1

Existing

**Effective Term and Year**  
Fall 2023

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-09-26

**Rationale for Change**

The changed course title and description serve to update the course in order to match the changing context for communication in the public service, whether at the federal or provincial level.

## Course Information

**Faculty**

Faculty of Arts

**Academic Unit**

Dean of Arts Office

**Subject Code**

PS

**Number**

614

Proposed

**Title**

Communicating Policy: Genres, Audiences, and Technologies

Existing

**Title**  
Communicating with Diverse Audiences

**Proposed**

**Abbreviated Title**  
Communicating Policy

**Existing**

**Abbreviated Title**  
Comm. with Diverse Audiences

**Proposed**

**Description**

This course offers participants an opportunity to identify and interrogate the stylistic and visual strategies characteristic of documents used in the Public Service. Key considerations include understanding the diverse audiences for service communication; navigating a complex information environment, and responding to a rapidly changing technological landscape.

**Existing**

**Description**

Public servants often have to become communication specialists: they have to communicate with diverse audiences (e.g. citizen groups, politicians, lawyers, parliamentary committees and subcommittees) using a variety of genres (e.g. reports, records pamphlets, power point presentations, briefs) as well as different modes of communication (e.g. electronic, text, face-to-face). This course offers participants an opportunity to identify and interrogate the stylistic and visual strategies characteristic of the documents in their workplaces. Much of the course focuses on identifying the needs of different audiences and aligning stylistic and visual choices to those audiences. In the process of investigating documentation practices, course participants are offered opportunities to develop their own informal and formal communication skills. This course is restricted to students enrolled in the Master of Public Service program.

**Units**

0.50

**Exceptions to Fees or Academic Progress Units**

No,

**Components**

Seminar

**Primary Component**

Seminar

**Grading Information**

**Grading Basis**

Numerical Grading Basis

**Cross-Listing Information****Is this course cross-listed?**

No,

**Repeatable Courses****Can this course be repeated for credit?**

No,

**Enrolment Rules****Consent to Add**

No consent required,

**Consent to Drop**

No consent required,

**Prerequisites**

Enrolled in Master of Public Service (MPS), or Master of Public Service (MPS)-Co-op

**Corequisites**

No Rules

**Antirequisites**

No Rules

**Course Notes**

## Workflow Information

**Workflow Path**

Committee approvals,

**Faculty/AFIW Path(s) for Workflow**

Faculty of Arts

## Dependencies

There are no dependencies

# PSYCH 827A - Applied Practicum in Industrial/Organizational Psychology I

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## Effective Date & Career

**Career**

Graduate,

Proposed

**Effective Term and Year**  
Spring 2026

Existing

**Effective Term and Year**  
Fall 2023

**Offering Number**

1

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-09-10

## Rationale for Change

The current practicum description requires too short a practicum experience for students and potential partners to make use of the opportunity. A 25- to 40-hour per week experience will allow students to fully immerse and gain the skills and connections they desire. We clarify that both the research supervisor and I/O training director must approve the course so that the research supervisor is able to support the student taking significant focus away from the research program to develop these skills and the I/O training director can ensure that the plan for the practicum is valuable and appropriate. Given the extensive commitment and value of such an experience, we are allowing this to be used to fulfill a breadth course requirement at the Ph D level.

## Course Information

### Faculty

Faculty of Arts

### Academic Unit

Department of Psychology

### Subject Code

PSYCH

### Number

827A

### Title

Applied Practicum in Industrial/Organizational Psychology I

### Abbreviated Title

Applied Pract in I/O Psych I

## Proposed

### Description

Training in industrial/organizational (I/O) psychology follows the scientist-practitioner model, and careers after graduation for students in our program can include non-academic career paths (e.g., consulting, applied research). Therefore, it is beneficial that students have the opportunity to practice applying principles derived from research in I/O and to develop their practitioner skills in applied organizational contexts. The practicum setting is to be proposed by the student to the Director of Applied I/O Training and the time spent in this setting should be a minimum of 25 hours/week and a maximum of 40 hours/week over one academic term. The proposal should be approved by the student's research supervisor and should outline the planned location for the practicum, a primary contact, and the nature of practicum and its relation to the student's academic or professional goals, and the proposed hours per week. Following completion of the practicum, students will present a summary and reflection on their work experience, including making connections to content in their I/O coursework, identifying knowledge, skills, abilities, and other characteristics acquired, and a reflection on personal areas for growth and career goals. This practicum does not count towards the requirements to fulfill

the MASc in I/O degree. This practicum can count towards the breadth requirement for students registered in the I/O field in the Ph D in Psychology program or those who later matriculate into this from the MA or MASc.

Existing

### Description

Training in industrial/organizational (I/O) psychology follows the scientist-practitioner model, and careers after graduation for students in our program can include non-academic career paths (e.g., consulting, applied research). Therefore, it is beneficial that students have the opportunity to practice applying principles derived from research in I/O and to develop their practitioner skills in more applied organizational contexts. The practicum setting is to be proposed by the student to the faculty head of the I/O area and the time spent in this setting should be a minimum of 50 hours over the term (approximately 1 morning or afternoon a week). This proposal should outline the planned location for the practicum, a primary contact, and the nature of practicum and its relation to the student's academic or professional goals, and the proposed time. The plans for evaluation will be determined, on a case-by-case basis, in consultation with the student's advisor and the head of the area. This practicum does not count towards the breadth requirement for students in the I/O program. Additionally, this practicum is meant to complement rather than replace the internship requirement for I/O MASc students.

### Units

0.50

### Exceptions to Fees or Academic Progress Units

No,

Proposed

Components

Existing

Components

### Primary Component

Practicum

## Grading Information

### Grading Basis

Credit/No Credit

## Cross-Listing Information

### Is this course cross-listed?

No,

## Repeatable Courses

**Can this course be repeated for credit?**

No,

## Enrolment Rules

**Consent to Add**

Department consent required,

**Consent to Drop**

No consent required,

**Prerequisites**

No Rules

**Corequisites**

No Rules

**Antirequisites**

No Rules

## Course Notes

## Workflow Information

**Workflow Path**

Committee approvals,

**Faculty/AFIW Path(s) for Workflow**

Faculty of Arts

## Dependencies

There are no dependencies

Date 2026/01/06

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## Meeting Information

Agenda Page TitleSGC - Consent Agenda - Faculty of Engineering - January 21, 2026

Career Level  
Graduate,

Faculty/UnitEngineering

Date2026-01-21

### Summary

#### Course Proposals:

##### 1) Systems Design Engineering:

*1 new course*

#### Program Proposals:

##### 1) Biomedical Engineering:

###### 1.1) PhD in Biomedical Engineering:

*a) Revising the PACE Milestone descriptions so the GSAC is clearer and more concise.*

*b) Changing the course term completions wording.*

*c) Removing HLTH 616, HLTH 719, ECE 730 Topic 34, and ME 739 Topic 15 from the field-specific course list.*

*d) Adding HLTH 717M, HLTH 718M, ECE 638, and ME 646 to the field-specific course list.*

###### 1.2) MAsc in Biomedical Engineering:

*a) Revising the PACE Milestone descriptions so the GSAC is clearer and more concise.*

*b) Updating the advisory committee composition.*

*c) Changing the course term completions wording.*

*d) Removing HLTH 616, HLTH 719, ECE 730 Topic 34, and ME 739 Topic 15 from field-specific course list.*

*e) Adding HLTH 717M, HLTH 718M, ECE 638, and ME 646 to field-specific course list.*

##### 2) Systems Design Engineering:

###### 2.1) MEng in Systems Design Engineering:

*Replacing SYDE 770 Topic 39 with SYDE 670 in the list of courses associated with the Graduate Specialization in Artificial Intelligence and Machine Learning.*

#### Regulations Proposals:

**Faculty of Engineering:**

*Updating the Accelerated Master's program requirements to include the Master of Engineering programs and the Master of Management Science programs.*

**Attachment(s)**

## Course Proposals

**Courses: Retire** No proposals have been added.

**Courses: New**

Code	Title	Type	Workflow Step
<a href="#">SYDE 670</a>	Deployment of Deep Learning Models	Courses	SGC, Senate Graduate Council (SGC)

**Courses: Changes** No proposals have been added.

## Programs & Plans Proposals

**Programs & Plans: Retire** No proposals have been added.

**Programs & Plans: Major Modifications** No proposals have been added.

**Programs & Plans: Minor Modifications**

Code	Title	Type	Workflow Step
<a href="#">PhD in Biomedical Engineering</a>	Doctor of Philosophy (PhD) in Biomedical Engineering	Programs	SGC, Senate Graduate Council (SGC)
<a href="#">MASc in Biomedical Engineering</a>	Master of Applied Science (MASc) in Biomedical Engineering	Programs	SGC, Senate Graduate Council (SGC)
<a href="#">MEng in Systems Design Engineering</a>	Master of Engineering (MEng) in Systems Design Engineering	Programs	SGC, Senate Graduate Council (SGC)

## Regulations Proposals

**Regulations: Retire** No proposals have been added.

**Regulations: New** No proposals have been added.

**Regulations: Changes**

Code	Title	Type	Workflow Step
<a href="#">7.5 Faculty minimum requirements: Faculty of Engineering</a>	7.5 Faculty minimum requirements: Faculty of Engineering	Policies	SGC, Senate Graduate Council (SGC)

**Effective Date & Career**

**Career**  
Graduate,

**Effective Term and Year**  
Spring 2026

**Proposal Details**

**Proposal Type**  
New,

**Academic Unit Approval**  
2025-10-23

**Rationale for New Course**

This course was previously taught as a special topics course. Given its relevance to current academic and industry trends, and alignment with program learning outcomes, we are now offering this course on a regular basis.

**Course Information**

**Faculty**  
Faculty of Engineering

**Academic Unit**  
Department of Systems Design Engineering

**Subject Code**  
SYDE

**Number**  
670

**Title**  
Deployment of Deep Learning Models

**Abbreviated Title**  
Dplymt Deep Learning Mdls

**Description**  
This course focuses on the deployment of computer vision networks for real-world applications. Students will gain practical knowledge on various computer vision tasks such as semantic segmentation, object detection, optical flow, and depth estimation. The course covers all critical aspects from selecting appropriate network architectures, data preparation and handling, to deployment on edge devices. The course also delves into infrastructure setup, training, and model compression techniques to ensure efficient deployment. By the end of the course, practitioners will be equipped with the skills needed to devise, implement, and maintain robust computer vision solutions in diverse real-world scenarios.

**Units**  
0.50

**Exceptions to Fees or Academic Progress Units**  
No,

**Components**

**Primary Component**

## Grading Information

**Grading Basis**

Numerical Grading Basis

## Cross-Listing Information

**Is this course cross-listed?**

No,

## Repeatable Courses

**Can this course be repeated for credit?**

No,

## Enrolment Rules

**Consent to Add**

No consent required,

**Consent to Drop**

No consent required,

**Prerequisites**

No Rules

**Corequisites**

No Rules

**Antirequisites**

Not completed nor concurrently enrolled in: SYDE770 (Topic 39: Deployment of Deep Learning Models)

## Course Notes

## Workflow Information

**Workflow Path**  
Committee approvals,

**Faculty/AFIW Path(s) for Workflow**  
Faculty of Engineering

## Dependencies

There are no dependencies

# PhD in Biomedical Engineering - Doctor of Philosophy (PhD) in Biomedical Engineering

[Top](#)

## Effective Date and Career

**Career**  
Graduate,

Proposed

**Effective Term and Year**  
Spring 2026

Existing

**Effective Term and Year**  
Winter 2026

## Proposal Details

**Proposal Type**  
Change,

**Academic Unit Approval**  
2025-11-14

**Quality Assurance Designation**  
Minor Modification Qad

**Is there an impact to existing students?**  
Yes,

### **Impact on Existing Students**

- 1) The above proposed wording will provide a clear and concise description as to what students are required to complete as part of the PACE Milestone. The changes are:
  - a. Students will be required to attend an average of 4 seminars per term, except for their final term, instead of 5 seminars per term.
  - b. Students will be required to present 2 seminars as part of the seminar requirement instead of 1. This is because Ph D students are in the program for longer than master's students.
- 2) There will be more flexibility when students are to complete their course requirements as it will state "expected" instead of "must".
- 3) The field-specific courses will be revised so they are more accurate.

Students will have the option to follow the updated requirements since the majority of the changes are considered to be in their favour.

### **Is the credential name changing?**

No,

### **Graduate Co-operative Requirements**

Not Applicable,

### **Change to Learning Outcomes**

No,

### **Rationale and Background for Change(s)**

- 1) Revise the PACE Milestone descriptions so the GSAC is clearer and more concise. Identify the three components of the PACE as separate milestones. The list of milestones is also being revised so they appear in sequential order. Requesting to revise the wording of the PACE Milestone descriptions so they are more concise, which will be beneficial to students enrolled in the program. This will be beneficial as the proposed wording will provide a more straightforward description as to what is expected from students to complete the PACE Milestone. Identifying the PACE components as separate milestones will make administering and tracking the milestones more efficient.
- 2) Change course term completions wording. Requesting to change course term completions wording to allow for more flexibility so extension requests are not required. Since the current wording states that courses must be completed by the end of term 4 (term 5 if direct entry), students are required to submit an extension request. Already students are stating they need extension requests due to when courses are being offered.
- 3) Remove HLTH 616, HLTH 719, ECE 730 Topic 34, and ME 739 Topic 15 from field-specific course list. HLTH 616, HLTH 719, ECE 730 Topic 34, and ME 739 Topic 15 will no longer be offered, and therefore we are requesting to remove these.
- 4) Add HLTH 717M, HLTH 718M, ECE 638, and ME 646 to field-specific course list. HLTH 717M and HLTH 718M are replacing HLTH 719. ECE 638 is replacing ECE 730 Topic 34. ME 646 is replacing ME 739 Topic 15. Therefore, we are requesting to add these.

## **General Program/Plan Information**

### **Faculty**

Faculty of Engineering

### **Academic Unit**

Dean of Engineering Office

### **Graduate Field of Study**

Faculty

**Program/Plan Name**

Doctor of Philosophy (Ph D) in Biomedical Engineering

**Graduate Credential Type**

Ph D

**Accelerated Program**

Not applicable,

**Admit Term(s)**

Fall, Winter, Spring,

**Delivery Mode**

On-campus,

**Length of Program**

- Students are required to complete the program in accordance with the [University program time limits](#).

**Graduate Research Fields**

- Biomaterials, Tissue Engineering, and Drug Delivery
- Biomechanics and Rehabilitation
- Biomedical Signals and Devices
- Biomedical Imaging Technology
- Biomedical Informatics

## Admissions

**Admission Requirements: Minimum Requirements**

- Ph D (regular entry) applicants who completed a research thesis-based master's degree (or equivalent) in engineering, applied science, or science from a recognized institution with at least an overall 80% average and documented evidence of potential to excel in Ph D studies and research.
- Ph D (direct from Honours Biomedical Engineering (BME) undergraduate entry) applicants require a minimum overall average of 80% in a BME program at the undergraduate level and clear evidence of excellent potential to excel in Ph D studies and research. Substantial research experience is expected.
- Applicants who are deemed by the graduate coordinator, BME graduate program director, Admissions Committee or intended advisor to have an inadequate depth of technical BME background may be directed to take additional foundational courses, to be specified at the time of admission.
- [English language proficiency \(ELP\)](#) (if applicable)

**Admission Requirements: Application materials**

- Program-specific questions (PSQ)
- Résumé
- Statement of interest
- Transcript(s)

#### **Admission Requirements: References**

- Number of references: 3
- Type of references: 2 from academic sources that are able to comment upon academic preparation and research ability.

## Requirements Information

#### **Graduate Degree Requirements**

- Students must complete the course and milestone requirements listed below in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).

#### **Graduate Course Requirements**

No Rules

Proposed

#### **Graduate Course Requirements**

- Students are required to successfully complete 4 graduate-level courses (with unit weights of 0.50 each), including 1 core biomedical engineering course (BME 601, BME 602, or BME 603), 1 field-specific course from the list below, and 2 elective courses.
  - The field specific course and the chosen electives must be approved by the supervisor(s).
  - All courses are expected to be completed by the end of term 4.

- Further courses may be required by the supervisor(s) in consultation with the Director of Biomedical Engineering Graduate Programs depending on the student's educational background.
- Students who have completed the MASc program in BME at Waterloo may apply and continue to the doctoral program. In this situation, students will have already completed the core course requirements (one of BME 601, BME 602, or BME 603), a field-specific course and two electives as part of their master's degree requirements. To satisfy the Ph D program requirements, these students must complete a total of four courses including a) one core course requirement (one of BME 601, BME 602 or BME 603 that was not completed as part of the MASc in BME program); b) two additional electives; c) an additional field-specific course if they have switched fields between MASc and Ph D.
- Students admitted directly to the Ph D program who possess an honour's undergraduate degree in biomedical engineering are required to complete a minimum of 7 courses (with 0.50 credits each), including 1 core BME course (BME 601, BME 602, BME 603), 2 field-specific courses from the list below, and 4 elective courses.
  - The field specific course and the chosen electives must be approved by the supervisor(s).
  - All courses are expected to be completed by the end of term 5.
- Student must select their field-specific course(s) from the following list:
  - Biomaterials, Tissue Engineering and Drug Delivery
    - BIOL 636 Advanced Immunology
    - BME 611 Materials Biocompatibility
    - CHE 601 Theory and Application of Transport Phenomena
    - CHE 602 Chemical Reactor Analysis
    - CHE 612 Interfacial Phenomena
    - CHE 620 Applied Engineering Mathematics
    - CHE 640 Principles of Polymer Science
    - CHE 660 Principles of Biochemical Engineering
    - CHE 663 Bioseparations
    - CHE 760 Special Topics in Biochemical Engineering
    - ECE 601 Foundations of Biology in Engineering
    - KIN 657 Human Neuroanatomy
    - PHARM 609 Advanced Pharmacokinetics
    - PHARM 610 Topics in Drug Development
    - PHARM 617 Formulations
    - SYDE 684 Materials Biocompatibility
  - Biomechanics and Rehabilitation
    - AMATH 663 Fluid Mechanics
    - BME 550 Sports Engineering
    - BME 551 Biomechanics of Human Movement
    - BME 588 Special Topics in Biomechanics Topic 1: Mechanics of Biomaterials and Tissues
    - KIN 601 Skeletal Muscle Physiology: Structure & Function
    - KIN 602 Respiratory and Cardiovascular Physiology
    - KIN 603 Cardiac and Vascular Smooth Muscle Physiology
    - KIN 611 Biomechanics of Human Motion
    - KIN 613 Modern Methods in Biomechanical Modeling, Kinematics, and Kinetics
    - KIN 620 Ergonomic Aspects of Occupational Musculoskeletal Injuries
    - ME 621 Applied Finite Element Methods
    - ME 662 Advanced Fluid Mechanics
    - ME 663 Computational Fluid Dynamics
    - ME 720 Special Topics in Solid Mechanics Topic 5: Impact Biomechanics
    - ME 720 Special Topics in Solid Mechanics Topic 4: Mechanics of Medical Devices
    - ME 780 Special Topics in Mechatronics Topic 37: Human Movement Neuromechanics
    - PHYS 752 Molecular Biophysics
    - SYDE 644 Human Factors Testing
    - SYDE 652 Dynamics of Multibody Systems

- Biomedical Signals and Devices
  - ECE 638 Biosensing: Fundamentals and Applications
  - ECE 770 Special Topics in Antenna and Microwave Theory Topic 4: Computational Methods for Engineering Electromagnetics
  - KIN 653 Human Neuroscience Theory
  - ME 646 Design for Additive Manufacturing
  - ME 720 Special Topics in Solid Mechanics Topic 4: Mechanics of Medical Devices
  - ME 739 Manufacturing Processes Topics Topic 3: Materials for Nano & Microelectromechanical Systems
  - ME 765 Special Topics in Fluid Mechanics Topic 22: Microfluidic and MEMS Systems and Applications
  - ME 780 Special Topics in Mechatronics Topic 32: Neural and Rehabilitation Engineering
  - NANO 604 Nanomechanics and Molecular Dynamics Simulations
  - SYDE 750 Topics in Systems Modelling Topic 38: Social Robotics
- Biomedical Imaging Technology
  - BME 641 Medical Imaging
  - ECE 607 Fundamentals of Ultrasonics
  - ECE 613 Image Processing and Visual Communication
  - ECE 675 Radiation & Propagation of Electromagnetic Fields
  - ME 720 Special Topics in Solid Mechanics Topic 20: Acoustics
  - PHYS 751 Clinical Applications of Physics in Medicine
  - SYDE 671 Advanced Image Processing
  - SYDE 672 Statistical Image Processing
  - SYDE 675 Pattern Recognition
  - SYDE 677 Medical Imaging
  - SYDE 780 Selected Topics in Engineering Sciences Topic 13: Biomedical Optics
- Biomedical Informatics
  - AMATH 882 Mathematical Cell Biology
  - BIOL 614 Applied Bioinformatics and Genomics
  - BME 651 Big Data Analysis: Health and Biomedical Engineering
  - HLTH 612 Data Structures and Standards in Health Informatics
  - HLTH 615 Requirements Specification and Analysis in Health Systems
  - HLTH 717M Advanced Artificial Intelligence in Health I (0.25 unit weight) and HLTH 718M Natural Language Processing Algorithm and Application in Health (0.25 unit weight)
  - KIN 613 Modern Methods in Biomechanical Modeling, Kinematics, and Kinetics
- BME and health electives (general electives that include topics in more than one research fields)
  - ECE 603 Statistical Signal Processing
  - ECE 608 Quantitative Methods in Biomedical Engineering
  - ECE 757A Embodied Intelligence
  - KIN 601 Skeletal Muscle Physiology: Structure & Function
  - KIN 606 Molecular Basis of Disease
  - KIN 607 Integrative Energy Metabolism in Health and Disease
  - KIN 608 Introduction to Genetics for the Biosciences
  - KIN 612 Instrumentation and Signal Processing in Biophysical Research
  - KIN 646 Physiological and Biochemical Analysis of Nutrition and Health
  - KIN 653 Human Neuroscience Theory
  - KIN 654 Instrumentation in Neuroscience Research
  - MSE 619 Healthcare Analytics
  - SYDE 642 Cognitive Engineering Methods

- SYDE/ECE 750 Topics in Systems Modelling/Special Topics in Computer Software Topic 37/32: Biology and Computation
- SYDE 750 Topics in Systems Modelling Topic 39: Embodied Intelligence
- In every case, a graduate course program is established by the supervisor(s) in consultation with the student and is subject to the approval of the Director of the BME Graduate Program. Candidates may also be required to take additional courses as a result of a comprehensive examination. Students pursuing one of the program's Graduate Research Fields should inform their supervisor(s) of their chosen field(s) to ensure appropriate course selection.
- The Faculty of Engineering requires that no more than one-half of the courses used for credit towards a graduate degree may be taught by the candidate's supervisor(s). In the case of co-supervision in small research groups, it may be necessary to relax this rule, but the student's file must contain a statement of formal approval from the BME graduate program director and endorsement from the Associate Dean for Graduate Studies and Postdoctoral Affairs in the Faculty of Engineering.

## Existing

### Graduate Course Requirements

- Students are required to successfully complete 4 graduate-level courses (with unit weights of 0.50 each), including 1 core biomedical engineering course (BME 601, BME 602, or BME 603), 1 field-specific course from the list below, and 2 elective courses.
  - The field specific course and the chosen electives must be approved by the supervisor(s).
  - All courses must be completed by the end of term 4.
  - Further courses may be required by the supervisor(s) in consultation with the Director of Biomedical Engineering Graduate Programs depending on the student's educational background.
  - Students who have completed the MASc program in BME at Waterloo may apply and continue to the doctoral program. In this situation, students will have already completed the core course requirements (one of BME 601, BME 602, or BME 603), a field-specific course and two electives as part of their master's degree requirements. To satisfy the Ph D program requirements, these students must complete a total of four courses including a) one core course requirement (one of BME 601, BME 602 or BME 603 that was not completed as part of the MASc in BME program); b) two additional electives; c) an additional field-specific course if they have switched fields between MASc and Ph D.
- Students admitted directly to the Ph D program who possess an honour's undergraduate degree in biomedical engineering are required to complete a minimum of 7 courses (with 0.50 credits each), including 1 core BME course (BME 601, BME 602, BME 603), 2 field-specific courses from the list below, and 4 elective courses.
  - The field specific course and the chosen electives must be approved by the supervisor(s).
  - All courses must be completed by the end of term 5.
- Student must select their field-specific course(s) from the following list:
  - Biomaterials, Tissue Engineering and Drug Delivery
    - BIOL 636 Advanced Immunology
    - BME 611 Materials Biocompatibility
    - CHE 601 Theory and Application of Transport Phenomena
    - CHE 602 Chemical Reactor Analysis
    - CHE 612 Interfacial Phenomena
    - CHE 620 Applied Engineering Mathematics
    - CHE 640 Principles of Polymer Science
    - CHE 660 Principles of Biochemical Engineering
    - CHE 663 Bioseparations
    - CHE 760 Special Topics in Biochemical Engineering
    - ECE 601 Foundations of Biology in Engineering
    - KIN 657 Human Neuroanatomy
    - PHARM 609 Advanced Pharmacokinetics
    - PHARM 610 Topics in Drug Development
    - PHARM 617 Formulations
    - SYDE 684 Materials Biocompatibility
  - Biomechanics and Rehabilitation
    - AMATH 663 Fluid Mechanics
    - BME 550 Sports Engineering
    - BME 551 Biomechanics of Human Movement

- BME 588 Special Topics in Biomechanics Topic 1: Mechanics of Biomaterials and Tissues
- KIN 601 Skeletal Muscle Physiology: Structure & Function
- KIN 602 Respiratory and Cardiovascular Physiology
- KIN 603 Cardiac and Vascular Smooth Muscle Physiology
- KIN 611 Biomechanics of Human Motion
- KIN 613 Modern Methods in Biomechanical Modeling, Kinematics, and Kinetics
- KIN 620 Ergonomic Aspects of Occupational Musculoskeletal Injuries
- ME 621 Applied Finite Element Methods
- ME 662 Advanced Fluid Mechanics
- ME 663 Computational Fluid Dynamics
- ME 720 Special Topics in Solid Mechanics Topic 5: Impact Biomechanics
- ME 720 Special Topics in Solid Mechanics Topic 4: Mechanics of Medical Devices
- ME 780 Special Topics in Mechatronics Topic 37: Human Movement Neuromechanics
- PHYS 752 Molecular Biophysics
- SYDE 644 Human Factors Testing
- SYDE 652 Dynamics of Multibody Systems
- Biomedical Signals and Devices
  - ECE 730 Special Topics in Solid State Devices Topic 34: Biosensing – Fundamentals and Applications
  - ECE 770 Special Topics in Antenna and Microwave Theory Topic 4: Computational Methods for Engineering Electromagnetics
  - KIN 653 Human Neuroscience Theory
  - ME 720 Special Topics in Solid Mechanics Topic 4: Mechanics of Medical Devices
  - ME 739 Manufacturing Processes Topics Topic 3: Materials for Nano & Microelectromechanical Systems
  - ME 739 Manufacturing Processes Topics Topic 15: Additive Manufacturing Design
  - ME 765 Special Topics in Fluid Mechanics Topic 22: Microfluidic and MEMS Systems and Applications
  - ME 780 Special Topics in Mechatronics Topic 32: Neural and Rehabilitation Engineering
  - NANO 604 Nanomechanics and Molecular Dynamics Simulations
  - SYDE 750 Topics in Systems Modelling Topic 38: Social Robotics
- Biomedical Imaging Technology
  - BME 641 Medical Imaging
  - ECE 607 Fundamentals of Ultrasonics
  - ECE 613 Image Processing and Visual Communication
  - ECE 675 Radiation & Propagation of Electromagnetic Fields
  - ME 720 Special Topics in Solid Mechanics Topic 20: Acoustics
  - PHYS 751 Clinical Applications of Physics in Medicine
  - SYDE 671 Advanced Image Processing
  - SYDE 672 Statistical Image Processing
  - SYDE 675 Pattern Recognition
  - SYDE 677 Medical Imaging
  - SYDE 780 Selected Topics in Engineering Sciences Topic 13: Biomedical Optics
- Biomedical Informatics
  - AMATH 882 Mathematical Cell Biology
  - BIOL 614 Applied Bioinformatics and Genomics
  - BME 651 Big Data Analysis: Health and Biomedical Engineering
  - HLTH 612 Data Structures and Standards in Health Informatics
  - HLTH 615 Requirements Specification and Analysis in Health Systems

- HLTH 616 Decision Making and Systems Thinking in Health Informatics
- HLTH 719 Advanced Research Methods in Health Data Science
- KIN 613 Modern Methods in Biomechanical Modeling, Kinematics, and Kinetics
- BME and health electives (general electives that include topics in more than one research fields)
  - ECE 603 Statistical Signal Processing
  - ECE 608 Quantitative Methods in Biomedical Engineering
  - ECE 757A Embodied Intelligence
  - KIN 601 Skeletal Muscle Physiology: Structure & Function
  - KIN 606 Molecular Basis of Disease
  - KIN 607 Integrative Energy Metabolism in Health and Disease
  - KIN 608 Introduction to Genetics for the Biosciences
  - KIN 612 Instrumentation and Signal Processing in Biophysical Research
  - KIN 646 Physiological and Biochemical Analysis of Nutrition and Health
  - KIN 653 Human Neuroscience Theory
  - KIN 654 Instrumentation in Neuroscience Research
  - MSE 619 Healthcare Analytics
  - SYDE 642 Cognitive Engineering Methods
  - SYDE/ECE 750 Topics in Systems Modelling/Special Topics in Computer Software Topic 37/32: Biology and Computation
  - SYDE 750 Topics in Systems Modelling Topic 39: Embodied Intelligence
- In every case, a graduate course program is established by the supervisor(s) in consultation with the student and is subject to the approval of the Director of the BME Graduate Program. Candidates may also be required to take additional courses as a result of a comprehensive examination. Students pursuing one of the program's Graduate Research Fields should inform their supervisor(s) of their chosen field(s) to ensure appropriate course selection.
- The Faculty of Engineering requires that no more than one-half of the courses used for credit towards a graduate degree may be taught by the candidate's supervisor(s). In the case of co-supervision in small research groups, it may be necessary to relax this rule, but the student's file must contain a statement of formal approval from the BME graduate program director and endorsement from the Associate Dean for Graduate Studies and Postdoctoral Affairs in the Faculty of Engineering.

## Proposed

### Milestone Requirements

#### Professional Attributes and Competence Enhancement (PACE) Milestone

- The PACE milestone includes the following three components: PACE Days, BME Research Day, and Seminar Requirement. The requirements for the three components are outlined below:
- Professional Attributes and Competence Enhancement (PACE) Component 1: PACE Days
  - Students are required to attend and participate in PACE Days to complete the following modules:
    - Module 1: Research Design and Planning Ideas
    - Module 2: Professional Presentations
    - Module 3: Scientific Writing
    - Module 4: Vision Development
    - Module 5: Proposal Writing and Peer Review
  - If a Ph D student completed Module 1: Research Design and Planning Ideas, Module 2: Professional Presentations, and Module 3: Scientific Writing as part of the MASc in Biomedical Engineering program, they are only required to complete Module 4: Vision Development and Module 5: Proposal Writing and Peer Review.
- Professional Attributes and Competence Enhancement (PACE) Component 2: BME Research Day
  - Students are required to give either an oral or poster presentation at the BME Research Day each year that they are enrolled in the Ph D in Biomedical Engineering Program.
  - The BME Research Day occurs annually, which students are typically required to attend.
- Professional Attributes and Competence Enhancement (PACE) Component 3: Seminar Requirement
  - Students are required to attend an average of 4 seminars per term, except for their final term. The seminars attended are to be endorsed by the Biomedical Engineering Graduate Program.
  - Students are required to present at least two research seminars in the BME seminar series.

#### Ph D Comprehensive Examination I and Comprehensive Examination II

- Students are required to meet the University-level Ph D [Comprehensive Examination](#) minimum requirements outlined in the “Minimum requirements for the Ph D degree” section of the Graduate Studies Academic Calendar (GSAC), with certain noted differences that are specific to the [Faculty of Engineering Comprehensive Examination minimum requirements](#):
  - Comprehensive examination purpose: Consistent with University-level minimum requirements.
  - Timing: Students must follow the Faculty of Engineering completion timelines.
  - Committee: Students must follow the Faculty of Engineering committee composition guidelines which differ from the University-level minimum requirements in both number of committee members and committee makeup.
  - Who Chairs an examination: Students must follow the Faculty of Engineering Chair guidelines whereby the Chair is normally selected from outside of the student’s home department.
  - Format / Content: Consistent with University-level minimum requirements but with additional information provided in the Faculty of Engineering Comprehensive Examination minimum requirements.
  - Academic integrity: Consistent with University-level minimum requirements.
- In addition to the University-level and Faculty-level Ph D Comprehensive Examination minimum requirements, Ph D students in the Biomedical Engineering graduate program are also required to meet the following requirements:
  - Students must successfully complete (pass) the Comprehensive Background Examination (Comprehensive Exam I (Background)) and the Comprehensive Proposal Examination (Comprehensive Exam II (Proposal) which are conducted by the Department for each candidate.
  - The first exam, the Comprehensive Background Examination, will be held before the end of the third term (fourth term if transferring from an incomplete MASc). The main objective of this examination is to satisfy the Department that the candidate has a broad knowledge of their field and a thorough technical background to pursue their research; the candidate will be questioned on their background preparation.
  - The second exam, the Comprehensive Proposal Examination, will be held no later than the student’s sixth term and only after the Background Comprehensive Examination has been successfully completed. The main objective of this examination is to examine and approve the written thesis proposal.
  - The result of these examinations is the identification of an Advisory Committee which has examined and approved the candidate's background and thesis proposal and is willing to assist the supervisor with the subsequent research program.
  - Students who do not complete either Comprehensive Examination by the stated deadline, or fail either exam on their second attempt, will be required to withdraw from the program.
  - It is the supervisor’s responsibility to assemble the advisory committee.

### Ph D Thesis

- Students may choose to pursue one (1) of the following Graduate Research Fields:
  - Biomaterials, Tissue Engineering, and Drug Delivery
  - Biomechanics and Rehabilitation
  - Biomedical Signals and Devices
  - Biomedical Imaging Technology
  - Biomedical Informatics
- Candidates are expected to attend annual meetings with their Advisory Committee and complete term reports to provide updates on their progress.
- A Graduate Research Field is a university credential that is recognized on the student’s transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The BME graduate program, represented by the student’s supervisor and examining committee, must assess whether a student’s completed research warrants the field designation at the time of degree completion.
- Candidates are expected to maintain continuous registration until the thesis is submitted to Graduate Studies and Postdoctoral Affairs. Under exceptional circumstances, inactive terms or a leave of absence may be requested for a prior specified period with program approval. The role of a supervisor is to assist a candidate in establishing a research problem with an appropriate scope, to suggest alternative general approaches to the solution of a problem and to provide general advice on the structure and content of a thesis. It is imperative that the engineering code of ethics be strictly observed in the supervisor-candidate relationship.
- The Ph D degree in the Faculty of Engineering is awarded to a candidate who has successfully completed a program of advanced study and conducted original research. The program of research and its findings must be presented in the form of a thesis and submitted to the University for public examination prior to its oral defense.
- The writer of a thesis must demonstrate a critical awareness and understanding of the literature in the research field, exhibit a capability of defining original and useful research problems and a capability of independent thought in solving a research problem. An ability to communicate research results verbally and in writing must be shown. The University of Waterloo allows students to submit theses in English or in French, the latter being governed by certain important constraints. The principles governing the submission of theses in French are specified in the Graduate Studies Academic Calendar. The oral examination of a thesis will assess the ability of a candidate to communicate orally the results of the research and to defend the contents of the thesis.
- Originality in a thesis may be reflected in a number of ways. A candidate may have posed and solved an important new problem or have formulated an existing problem in a novel and useful way. A candidate may offer new and significant insights into problems examined previously by other researchers. Replications of previous investigations may be acceptable if, and only if, they incorporate [significantly new] elements in the design or execution of an experiment.
- Objective criteria describing what is meant by a significant contribution to knowledge are difficult to specify. One way of gauging a candidate's contribution is to consider the extent to which parts of the thesis might be published in peer-reviewed technical journals with an international stature or as a monograph by an acceptable publisher. The ultimate test of the acceptability of a thesis is the ability of a candidate to satisfy, through an oral examination, to a university-appointed committee of research specialists in the general field of study, that a significant research contribution has been made and communicated adequately.

Existing

### Milestone Requirements

#### Professional Attributes and Competence Enhancement (PACE) Module

- The PACE module milestone includes the following three components: Seminar series, PACE days, and Annual BME

research day. The requirements for the three components are outlined below:

- Seminar series including presenting a research seminar:
  - Biweekly seminar series with students and internal and external BME speakers (1.5-hour duration). Guest speakers will also be invited to speak at the seminar series. The topics may be related to BME research, academic integrity, or professional development.
  - Each student must attend a minimum of five seminars per term, except for their final term. It is the student's responsibility to submit their "Seminar Attendance Certificates" attached to their term activity report. BME records should show that the number of seminars a student has attended is at least four times the number of terms the student has been enrolled as a full-time student in the program.
  - Each student will be required to present a research seminar by the end of their final term and as part of the PACE module milestones. BME will contact seminar candidates with scheduling information after they have passed their comprehensive exam (Parts I and II).
- PACE days:
  - Students are required to attend and participate in 2 PACE days at the beginning of terms 1, 2, 3, 4 and 5. PACE days are dedicated to students' professional development and the topics vary each term.
- Annual BME Research Day – once per year
  - Students are required to attend and present at the Annual BME Research Day. The annual event gives students an opportunity to showcase their progress and research findings while building community among BME graduate students. Students are required to submit an abstract and give either an oral or poster presentation.

## Ph D Comprehensive Examination I and Comprehensive Examination II

- Students are required to meet the University-level Ph D [Comprehensive Examination](#) minimum requirements outlined in the "Minimum requirements for the Ph D degree" section of the Graduate Studies Academic Calendar (GSAC), with certain noted differences that are specific to the [Faculty of Engineering Comprehensive Examination minimum requirements](#):
  - Comprehensive examination purpose: Consistent with University-level minimum requirements.
  - Timing: Students must follow the Faculty of Engineering completion timelines.
  - Committee: Students must follow the Faculty of Engineering committee composition guidelines which differ from the University-level minimum requirements in both number of committee members and committee makeup.
  - Who Chairs an examination: Students must follow the Faculty of Engineering Chair guidelines whereby the Chair is normally selected from outside of the student's home department.
  - Format / Content: Consistent with University-level minimum requirements but with additional information provided in the Faculty of Engineering Comprehensive Examination minimum requirements.
  - Academic integrity: Consistent with University-level minimum requirements.
- In addition to the University-level and Faculty-level Ph D Comprehensive Examination minimum requirements, Ph D students in the Biomedical Engineering graduate program are also required to meet the following requirements:
  - Students must successfully complete (pass) the Comprehensive Background Examination (Comprehensive Exam I (Background)) and the Comprehensive Proposal Examination (Comprehensive Exam II (Proposal) which are conducted by the Department for each candidate.
  - The first exam, the Comprehensive Background Examination, will be held before the end of the third term (fourth term if transferring from an incomplete MASc). The main objective of this examination is to satisfy the Department that the candidate has a broad knowledge of their field and a thorough technical background to pursue their research; the candidate will be questioned on their background preparation.
  - The second exam, the Comprehensive Proposal Examination, will be held no later than the student's sixth term and only after the Background Comprehensive Examination has been successfully completed. The main objective of this examination is to examine and approve the written thesis proposal.
  - The result of these examinations is the identification of an Advisory Committee which has examined and approved the candidate's background and thesis proposal and is willing to assist the supervisor with the subsequent research program.
  - Students who do not complete either Comprehensive Examination by the stated deadline, or fail either exam on their second attempt, will be required to withdraw from the program.
  - It is the supervisor's responsibility to assemble the advisory committee.

## Ph D Thesis

- Students may choose to pursue one (1) of the following Graduate Research Fields:
  - Biomaterials, Tissue Engineering, and Drug Delivery
  - Biomechanics and Rehabilitation
  - Biomedical Signals and Devices
  - Biomedical Imaging Technology
  - Biomedical Informatics
- Candidates are expected to attend annual meetings with their Advisory Committee and complete term reports to provide updates on their progress.
- A Graduate Research Field is a university credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The BME graduate program, represented by the student's supervisor and examining committee, must assess whether a student's completed research warrants the field designation at the time of degree completion.
- Candidates are expected to maintain continuous registration until the thesis is submitted to Graduate Studies and Postdoctoral Affairs. Under exceptional circumstances, inactive terms or a leave of absence may be requested for a prior specified period with program approval. The role of a supervisor is to assist a candidate in establishing a research problem with an appropriate scope, to suggest alternative general approaches to the solution of a problem and to provide general advice on the structure and content of a thesis. It is imperative that the engineering code of ethics be strictly observed in the supervisor-candidate relationship.
- The Ph D degree in the Faculty of Engineering is awarded to a candidate who has successfully completed a program of advanced study and conducted original research. The program of research and its findings must be presented in the form of a thesis and submitted to the University for public examination prior to its oral defense.
- The writer of a thesis must demonstrate a critical awareness and understanding of the literature in the research field, exhibit a capability of defining original and useful research problems and a capability of independent thought in solving a research problem. An ability to communicate research results verbally and in writing must be shown. The University of Waterloo allows students to submit theses in English or in French, the latter being governed by certain important constraints. The principles governing the submission of theses in French are specified in the Graduate

Studies Academic Calendar. The oral examination of a thesis will assess the ability of a candidate to communicate orally the results of the research and to defend the contents of the thesis.

- Originality in a thesis may be reflected in a number of ways. A candidate may have posed and solved an important new problem or have formulated an existing problem in a novel and useful way. A candidate may offer new and significant insights into problems examined previously by other researchers. Replications of previous investigations may be acceptable if, and only if, they incorporate [significantly new] elements in the design or execution of an experiment.
- Objective criteria describing what is meant by a significant contribution to knowledge are difficult to specify. One way of gauging a candidate's contribution is to consider the extent to which parts of the thesis might be published in peer-reviewed technical journals with an international stature or as a monograph by an acceptable publisher. The ultimate test of the acceptability of a thesis is the ability of a candidate to satisfy, through an oral examination, to a university-appointed committee of research specialists in the general field of study, that a significant research contribution has been made and communicated adequately.

#### Notes

- [Biomedical Engineering website](#)
- [Doctor of Philosophy \(Ph D\) in Biomedical Engineering future graduate students program page](#)

## Specializations

## Undergraduate Plan Guidelines

## Workflow Information

**Workflow Path**  
Committee approvals,

**Faculty/AFIW Path(s) for Workflow**  
Faculty of Engineering

## Dependencies

## Effective Date and Career

**Career**

Graduate,

Proposed

**Effective Term and Year**

Spring 2026

Existing

**Effective Term and Year**

Winter 2026

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-11-14

**Quality Assurance Designation**

Minor Modification Qad

**Is there an impact to existing students?**

Yes,

**Impact on Existing Students**

- 1) The above proposed wording will provide a clear and concise description as to what students are required to complete as part of the PACE Milestone. This is considered in the students' favour since:
- Students will be required to present at only one BME Research Day.
  - Students will be required to attend an average of 4 seminars per term, except for their final term, instead of 5 seminars per term.
  - Their committee membership will be less strict, which will provide more options.
  - There will be more flexibility when students are to complete their course requirements as it will state "expected" instead of "must".
- 4) The field-specific courses will be revised so they are more accurate.  
We will allow students to follow the updated requirements since they are considered to be in their favour.

**Is the credential name changing?**

No,

**Graduate Co-operative Requirements**

Not Applicable,

### Change to Learning Outcomes

No,

### Rationale and Background for Change(s)

- 1) Revise the PACE Milestone descriptions so the GSAC is clearer and more concise. Identify the three components of the PACE as separate milestones. The list of milestones is also being revised so they appear in sequential order. Requesting to revise the wording of the PACE Milestone descriptions so they are more concise, which will be beneficial to students enrolled in the program. This will be beneficial as the proposed wording will provide a more straightforward description as to what is expected from students to complete the PACE Milestone. Identifying the PACE components as separate milestones will make administering and tracking the milestones more efficient.
- 2) Update the advisory committee composition. Requesting to revise the advisory committee composition to give more options on who can be a committee member. The requested revisions are still in line with the University and Faculty of Engineering regulations for master's committee membership.
- 3) Change course term completions wording. Requesting to change course term completions wording to allow for more flexibility so extension requests are not required. Since the current wording states that courses must be completed by the end of term 4, students are required to submit an extension request. Already students are stating they need extension requests due to when courses are being offered.
- 4) Remove HLTH 616, HLTH 719, ECE 730 Topic 34, and ME 739 Topic 15 from field-specific course list. HLTH 616, HLTH 719, ECE 730 Topic 34, and ME 739 Topic 15 will no longer be offered, and therefore we are requesting to remove these.
- 5) Add HLTH 717M, HLTH 718M, ECE 638, and ME 646 to field-specific course list. HLTH 717M and HLTH 718M are replacing HLTH 719. ECE 638 is replacing ECE 730 Topic 34. ME 646 is replacing ME 739 Topic 15. Therefore, we are requesting to add these.

## General Program/Plan Information

### Faculty

Faculty of Engineering

### Academic Unit

Dean of Engineering Office

### Graduate Field of Study

Biomedical Engineering

### Faculty

Faculty of Engineering

### Program/Plan Name

Master of Applied Science (MASc) in Biomedical Engineering

### Graduate Credential Type

Master's

### Accelerated Program

Not applicable,

### Study Options (New)

Thesis

### Admit Term(s)

Fall, Winter, Spring,

### Delivery Mode

On-campus,

### **Length of Program**

- Students are required to complete the program in accordance with the [University program time limits](#).

### **Graduate Research Fields**

- Biomaterials, Tissue Engineering, and Drug Delivery
- Biomechanics and Rehabilitation
- Biomedical Signals and Devices
- Biomedical Imaging Technology
- Biomedical Informatics

## **Admissions**

### **Admission Requirements: Minimum Requirements**

- MASc applicants must have completed a bachelor's degree (or equivalent) in any field of engineering or a related science discipline at a recognized institution with a minimum 80% overall average.
- Applicants who are deemed by the graduate coordinator, Biomedical Engineering (BME) graduate program director, Admissions Committee or intended advisor to have an inadequate depth of technical BME background may be directed to take additional foundational courses, to be specified at the time of admission.
- [English language proficiency \(ELP\)](#) (if applicable)

### **Admission Requirements: Application materials**

- Program-specific questions (PSQ)
- Résumé
- Statement of interest
- Transcript(s)

### **Admission Requirements: References**

- Number of references: 2
- Type of references: Academic. Applicants who completed their degree five or more years before the application date may submit 1 academic and 1 professional reference.

## **Requirements Information**

## Graduate Degree Requirements

- Students must complete the course and milestone requirements listed below in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).

## Thesis Option: Course Requirements

No Rules

### Proposed

#### Thesis Option: Course Requirements

- Students must complete the following 4 graduate level courses (0.50 unit weight per course) counting towards degree credit from the University of Waterloo:
  - 1 of the following Biomedical Engineering core courses:
    - BME 601 Physiological Systems and Biomedical Design
    - BME 602 Foundations in Biomechanical Engineering
    - BME 603 Engineering Analysis of Living Cells
  - 1 of the following field-specific courses:
    - Biomaterials, Tissue Engineering and Drug Delivery
      - BIOL 636 Advanced Immunology
      - BME 611 Materials Biocompatibility
      - CHE 601 Theory and Application of Transport Phenomena
      - CHE 602 Chemical Reactor Analysis
      - CHE 612 Interfacial Phenomena
      - CHE 620 Applied Engineering Mathematics
      - CHE 640 Principles of Polymer Science
      - CHE 660 Principles of Biochemical Engineering
      - CHE 663 Bioseparations
      - CHE 760 Special Topics in Biochemical Engineering
    - ECE 601 Foundations of Biology in Engineering
    - KIN 657 Human Neuroanatomy
    - PHARM 609 Advanced Pharmacokinetics
    - PHARM 610 Topics in Drug Development
    - PHARM 617 Formulations
    - SYDE 684 Materials Biocompatibility
  - Biomechanics and Rehabilitation
    - AMATH 663 Fluid Mechanics
    - BME 550 Sports Engineering
    - BME 551 Biomechanics of Human Movement
    - BME 588 Special Topics in Biomechanics Topic 1: Mechanics of Biomaterials and Tissues
    - KIN 601 Skeletal Muscle Physiology: Structure & Function
    - KIN 602 Respiratory and Cardiovascular Physiology

- KIN 603 Cardiac and Vascular Smooth Muscle Physiology
  - KIN 611 Biomechanics of Human Motion
  - KIN 613 Modern Methods in Biomechanical Modeling, Kinematics, and Kinetics
  - KIN 620 Ergonomic Aspects of Occupational Musculoskeletal Injuries
  - ME 621 Applied Finite Element Methods
  - ME 662 Advanced Fluid Mechanics
  - ME 663 Computational Fluid Dynamics
  - ME 720 Special Topics in Solid Mechanics Topic 4: Mechanics of Medical Devices
  - ME 720 Special Topics in Solid Mechanics Topic 5: Impact Biomechanics
  - ME 780 Special Topics in Mechatronics Topic 37: Human Movement Neuromechanics
  - PHYS 752 Molecular Biophysics
  - SYDE 644 Human Factors Testing
  - SYDE 652 Dynamics of Multibody Systems
  - Biomedical Signals and Devices
    - ECE 638 Biosensing: Fundamentals and Applications
    - ECE 770 Special Topics in Antenna and Microwave Theory Topic 4: Computational Methods for Engineering Electromagnetics
    - KIN 653 Human Neuroscience Theory
    - ME 646 Design for Additive Manufacturing
    - ME 720 Special Topics in Solid Mechanics Topic 4: Mechanics of Medical Devices
    - ME 739 Manufacturing Processes Topics Topic 3: Materials for Nano & Microelectromechanical Systems
    - ME 765 Special Topics in Fluid Mechanics Topic 22: Microfluidic and MEMS Systems and Applications
    - ME 780 Special Topics in Mechatronics Topic 32: Neural and Rehabilitation Engineering
    - NANO 604 Nanomechanics and Molecular Dynamics Simulations
    - SYDE 750 Topics in Systems Modelling Topic 38: Social Robotics
  - Biomedical Imaging Technology
    - BME 641 Medical Imaging
    - ECE 607 Fundamentals of Ultrasonics
    - ECE 613 Image Processing and Visual Communication
    - ECE 675 Radiation & Propagation of Electromagnetic Fields
    - ME 720 Special Topics in Solid Mechanics Topic 20: Acoustics
    - PHYS 751 Clinical Applications of Physics in Medicine
    - SYDE 671 Advanced Image Processing
    - SYDE 672 Statistical Image Processing
    - SYDE 675 Pattern Recognition
    - SYDE 677 Medical Imaging
    - SYDE 780 Selected Topics in Engineering Sciences Topic 13: Biomedical Optics
  - Biomedical Informatics
    - AMATH 882 Mathematical Cell Biology
    - BIOL 614 Applied Bioinformatics and Genomics
    - BME 651 Big Data Analysis: Health and Biomedical Engineering
    - HLTH 612 Data Structures and Standards in Health Informatics
    - HLTH 615 Requirements Specification and Analysis in Health Systems
    - HLTH 717M Advanced Artificial Intelligence in Health I (0.25 unit weight) and HLTH 718M Natural Language Processing Algorithm and Application in Health (0.25 unit weight)
    - KIN 613 Modern Methods in Biomechanical Modeling, Kinematics, and Kinetics
  - BME and health electives (general electives that include topics in more than one research fields)
    - ECE 603 Statistical Signal Processing
    - ECE 608 Quantitative Methods in Biomedical Engineering
    - ECE 757A Embodied Intelligence
    - KIN 601 Skeletal Muscle Physiology: Structure & Function
    - KIN 606 Molecular Basis of Disease
    - KIN 607 Integrative Energy Metabolism in Health and Disease
    - KIN 608 Introduction to Genetics for the Biosciences
    - KIN 612 Instrumentation and Signal Processing in Biophysical Research
    - KIN 646 Physiological and Biochemical Analysis of Nutrition and Health
    - KIN 653 Human Neuroscience Theory
    - KIN 654 Instrumentation in Neuroscience Research
    - MSE 619 Healthcare Analytics
    - SYDE 642 Cognitive Engineering Methods
    - SYDE/ECE 750 Topics in Systems Modelling/Special Topics in Computer Software Topic 37/32: Biology and Computation
    - SYDE 750 Topics in Systems Modelling Topic 39: Embodied Intelligence
  - 2 elective courses
- All courses are expected to be completed by the end of term 4.
  - All course selections are arranged by the supervisor(s) in consultation with the student and are subject to the approval of the Director or Associate Director, BME graduate program. Students pursuing one the program's Graduate Research Fields, should inform their supervisor(s) of their chosen field(s) to ensure appropriate course selection.
  - Note: these requirements are in addition to satisfactory completion of any transitional courses that may be specified at the time of admission.
  - Note: The Faculty of Engineering requires that no more than one-half of the courses used for credit toward a graduate degree may be taught by a candidate's supervisor(s). In the case of co-supervision in small research groups, it may be necessary to relax this rule; however, the student's file must contain a statement of formal approval from the BME graduate program director and endorsement from the Associate Dean for Graduate Studies and Postdoctoral Affairs in the Faculty of Engineering.

- Students must complete the following 4 graduate level courses (0.50 unit weight per course) counting towards degree credit from the University of Waterloo:
  - 1 of the following Biomedical Engineering core courses:
    - BME 601 Physiological Systems and Biomedical Design
    - BME 602 Foundations in Biomechanical Engineering
    - BME 603 Engineering Analysis of Living Cells
  - 1 of the following field-specific courses:
    - Biomaterials, Tissue Engineering and Drug Delivery
      - BIOL 636 Advanced Immunology
      - BME 611 Materials Biocompatibility
      - CHE 601 Theory and Application of Transport Phenomena
      - CHE 602 Chemical Reactor Analysis
      - CHE 612 Interfacial Phenomena
      - CHE 620 Applied Engineering Mathematics
      - CHE 640 Principles of Polymer Science
      - CHE 660 Principles of Biochemical Engineering
      - CHE 663 Bioseparations
      - CHE 760 Special Topics in Biochemical Engineering
      - ECE 601 Foundations of Biology in Engineering
      - KIN 657 Human Neuroanatomy
      - PHARM 609 Advanced Pharmacokinetics
      - PHARM 610 Topics in Drug Development
      - PHARM 617 Formulations
      - SYDE 684 Materials Biocompatibility
    - Biomechanics and Rehabilitation
      - AMATH 663 Fluid Mechanics
      - BME 550 Sports Engineering
      - BME 551 Biomechanics of Human Movement
      - BME 588 Special Topics in Biomechanics Topic 1: Mechanics of Biomaterials and Tissues
      - KIN 601 Skeletal Muscle Physiology: Structure & Function
      - KIN 602 Respiratory and Cardiovascular Physiology
      - KIN 603 Cardiac and Vascular Smooth Muscle Physiology
      - KIN 611 Biomechanics of Human Motion
      - KIN 613 Modern Methods in Biomechanical Modeling, Kinematics, and Kinetics
      - KIN 620 Ergonomic Aspects of Occupational Musculoskeletal Injuries
      - ME 621 Applied Finite Element Methods
      - ME 662 Advanced Fluid Mechanics
      - ME 663 Computational Fluid Dynamics
      - ME 720 Special Topics in Solid Mechanics Topic 4: Mechanics of Medical Devices
      - ME 720 Special Topics in Solid Mechanics Topic 5: Impact Biomechanics
      - ME 780 Special Topics in Mechatronics Topic 37: Human Movement Neuromechanics
      - PHYS 752 Molecular Biophysics
      - SYDE 644 Human Factors Testing
      - SYDE 652 Dynamics of Multibody Systems
    - Biomedical Signals and Devices
      - ECE 730 Special Topics in Solid State Devices Topic 34: Biosensing – Fundamentals and Applications
      - ECE 770 Special Topics in Antenna and Microwave Theory Topic 4: Computational Methods for Engineering Electromagnetics
      - KIN 653 Human Neuroscience Theory
      - ME 720 Special Topics in Solid Mechanics Topic 4: Mechanics of Medical Devices
      - ME 739 Manufacturing Processes Topics Topic 3: Materials for Nano & Microelectromechanical Systems
      - ME 739 Manufacturing Processes Topics Topic 15: Additive Manufacturing Design
      - ME 765 Special Topics in Fluid Mechanics Topic 22: Microfluidic and MEMS Systems and Applications
      - ME 780 Special Topics in Mechatronics Topic 32: Neural and Rehabilitation Engineering
      - NANO 604 Nanomechanics and Molecular Dynamics Simulations
      - SYDE 750 Topics in Systems Modelling Topic 38: Social Robotics
    - Biomedical Imaging Technology
      - BME 641 Medical Imaging
      - ECE 607 Fundamentals of Ultrasonics
      - ECE 613 Image Processing and Visual Communication
      - ECE 675 Radiation & Propagation of Electromagnetic Fields
      - ME 720 Special Topics in Solid Mechanics Topic 20: Acoustics
      - PHYS 751 Clinical Applications of Physics in Medicine
      - SYDE 671 Advanced Image Processing
      - SYDE 672 Statistical Image Processing
      - SYDE 675 Pattern Recognition
      - SYDE 677 Medical Imaging
      - SYDE 780 Selected Topics in Engineering Sciences Topic 13: Biomedical Optics
    - Biomedical Informatics
      - AMATH 882 Mathematical Cell Biology
      - BIOL 614 Applied Bioinformatics and Genomics
      - BME 651 Big Data Analysis: Health and Biomedical Engineering
      - HLTH 612 Data Structures and Standards in Health Informatics
      - HLTH 615 Requirements Specification and Analysis in Health Systems
      - HLTH 616 Decision Making and Systems Thinking in Health Informatics
      - HLTH 719 Advanced Research Methods in Health Data Science

- KIN 613 Modern Methods in Biomechanical Modeling, Kinematics, and Kinetics
- BME and health electives (general electives that include topics in more than one research fields)
  - ECE 603 Statistical Signal Processing
  - ECE 608 Quantitative Methods in Biomedical Engineering
  - ECE 757A Embodied Intelligence
  - KIN 601 Skeletal Muscle Physiology: Structure & Function
  - KIN 606 Molecular Basis of Disease
  - KIN 607 Integrative Energy Metabolism in Health and Disease
  - KIN 608 Introduction to Genetics for the Biosciences
  - KIN 612 Instrumentation and Signal Processing in Biophysical Research
  - KIN 646 Physiological and Biochemical Analysis of Nutrition and Health
  - KIN 653 Human Neuroscience Theory
  - KIN 654 Instrumentation in Neuroscience Research
  - MSE 619 Healthcare Analytics
  - SYDE 642 Cognitive Engineering Methods
  - SYDE/ECE 750 Topics in Systems Modelling/Special Topics in Computer Software Topic 37/32: Biology and Computation
  - SYDE 750 Topics in Systems Modelling Topic 39: Embodied Intelligence
- 2 elective courses
- All courses must be completed by the end of term 4.
- All course selections are arranged by the supervisor(s) in consultation with the student and are subject to the approval of the Director or Associate Director, BME graduate program. Students pursuing one the program's Graduate Research Fields, should inform their supervisor(s) of their chosen field(s) to ensure appropriate course selection.
- Note: these requirements are in addition to satisfactory completion of any transitional courses that may be specified at the time of admission.
- Note: The Faculty of Engineering requires that no more than one-half of the courses used for credit toward a graduate degree may be taught by a candidate's supervisor(s). In the case of co-supervision in small research groups, it may be necessary to relax this rule; however, the student's file must contain a statement of formal approval from the BME graduate program director and endorsement from the Associate Dean for Graduate Studies and Postdoctoral Affairs in the Faculty of Engineering.

## Proposed

### Thesis Option: Milestone Requirements

#### Professional Attributes and Competence Enhancement (PACE) Milestone

- The PACE milestone includes the following three components: PACE Days, BME Research Day, and Seminar Requirement. The requirements for the three components are outlined below:
- Professional Attributes and Competence Enhancement (PACE) Component 1: PACE Days
  - Students are required to attend and participate in PACE Days to complete the following modules:
    - Module 1: Research Design and Planning Ideas
    - Module 2: Professional Presentations
    - Module 3: Scientific Writing
- Professional Attributes and Competence Enhancement (PACE) Component 2: BME Research Day
  - Students are required to give either an oral or poster presentation at a minimum of one BME Research Day.
  - The BME Research Day occurs annually, which students are typically required to attend.
- Professional Attributes and Competence Enhancement (PACE) Component 3: Seminar Requirement
  - Students are required to attend an average of 4 seminars per term, except for their final term. The seminars attended are to be endorsed by the Biomedical Engineering Graduate Program.
  - Students are required to present at least one research seminar in the BME seminar series.

#### Master's Thesis Proposal

- Students must develop and defend a thesis proposal that will be examined and approved by their supervisor and committee. The thesis proposal must be completed by the end of term 3.

#### Master's Thesis

- Students may choose to pursue one (1) of the following Graduate Research Fields:
  - Biomaterials, Tissue Engineering, and Drug Delivery
  - Biomechanics and Rehabilitation
  - Biomedical Signals and Devices
  - Biomedical Imaging Technology
  - Biomedical Informatics
- A Graduate Research Field is a university credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The BME graduate program, represented by the student's supervisor and examining committee, must assess whether a student's completed research warrants the field designation at the time of degree completion.
- Upon approval of the thesis proposal, students will proceed to the research and writing of the thesis. Students must complete and orally defend the thesis by the end of term 6. The thesis and defence will be evaluated by the student's Advisory Committee. The Advisory Committee shall be comprised of: the student's supervisor(s); an additional tenured or tenure track BME graduate faculty member; and at least one additional examiner, excluding BME graduate faculty members from the student's supervisors' home department, whose expertise can support the evaluation of the Master's thesis. At least two of the committee members must be tenured or tenure-track. Consistent with the Faculty of Engineering requirements, a maximum of one committee member with an adjunct appointment

or emeritus status is permitted.

Existing

### Thesis Option: Milestone Requirements

#### Professional Attributes and Competence Enhancement (PACE) Module

- The PACE module milestone includes the following three components: a Seminar series, PACE days, and Annual BME research day. The requirements for the three components are outlined below:
- Seminar series including presenting a research seminar:
  - Biweekly seminar series with students and internal and external BME speakers (1.5-hour duration). Guest speakers will also be invited to speak at the seminar series. The topics may be related to BME research, academic integrity, or professional development.
  - Each student must attend a minimum of five seminars per term, except for their final term. It is the student's responsibility to submit their "Seminar Attendance Certificates" attached to their term activity report. BME records should show that the number of seminars a student has attended is at least four times the number of terms the student has been enrolled as a full-time student in the program.
  - Each student will be required to present a research seminar by the end of their final term and as part of the PACE module milestones. BME will contact seminar candidates with scheduling information after they have passed their proposal.
- PACE Days:
  - Students are required to attend and participate in 2 PACE days at the beginning of terms 1, 2, and 3. PACE days are dedicated to students' professional development and the topics vary each term.
- Annual BME Research Day – once per year
  - Students are required to attend and present at the Annual BME Research Day. The annual event gives students an opportunity to showcase their progress and research findings while building community among BME graduate students. Students are required to submit an abstract and give either an oral or poster presentation.

#### Master's Thesis Proposal

- Students must develop and defend a thesis proposal that will be examined and approved by their supervisor and committee. The thesis proposal must be completed by the end of term 3.

#### Master's Thesis

- Students may choose to pursue one (1) of the following Graduate Research Fields:
  - Biomaterials, Tissue Engineering, and Drug Delivery
  - Biomechanics and Rehabilitation
  - Biomedical Signals and Devices
  - Biomedical Imaging Technology
  - Biomedical Informatics
- A Graduate Research Field is a university credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The BME graduate program, represented by the student's supervisor and examining committee, must assess whether a student's completed research warrants the field designation at the time of degree completion.
- Upon approval of the thesis proposal, students will proceed to the research and writing of the thesis. Students must complete and orally defend the thesis by the end of term 6. The thesis and defence will be evaluated by the student's Advisory Committee. The Advisory Committee shall be comprised of: at least one tenured or tenure track faculty member from the BME graduate program who will normally be the student's supervisor(s); an additional tenured or tenure track BME graduate faculty member; and at least one additional examiner who is not a BME faculty member (but may be from a department with BME faculty members) and whose expertise can support the evaluation of the Master's thesis. Consistent with the Faculty of Engineering requirements, a maximum of one committee member with an adjunct appointment or emeritus status is permitted.

#### Notes

- [Biomedical Engineering website](#)
- [Master of Applied Science \(MASc\) in Biomedical Engineering future graduate students program page](#)

**Specializations**

**Undergraduate Plan Guidelines**

**Workflow Information**

**Workflow Path**  
Committee approvals,

**Faculty/AFIW Path(s) for Workflow**  
Faculty of Engineering

**Dependencies**

**MEng in Systems Design Engineering - Master of Engineering (MEng) in Systems Design Engineering**

[Top](#)

**Effective Date and Career**

**Career**  
Graduate,

Proposed
<b>Effective Term and Year</b> Spring 2026
Existing
<b>Effective Term and Year</b> Fall 2025

**Proposal Details**

**Proposal Type**  
Change,

**Academic Unit Approval**  
2025-10-23

**Quality Assurance Designation**  
Minor Modification Qad

**Is there an impact to existing students?**

Yes,

**Impact on Existing Students**

Students registered in the program in Winter 2026 will be the last cohort to take SYDE 770 Topic 39. An anti-requisite will be listed for SYDE 670 to indicate SYDE 770 Topic 39.

**Is the credential name changing?**

No,

**Graduate Co-operative Requirements**

Not Applicable,

**Change to Learning Outcomes**

No,

**Rationale and Background for Change(s)**

Replacing SYDE 770 Topic 39 with SYDE 670 in the list of courses associated with the Graduate Specialization in Artificial Intelligence and Machine Learning. SYDE 670 is a new course that was previously taught as SYDE 770 Topic 39 which is a special topics course. Given its relevance to current academic and industry trends, and alignment with program learning outcomes, we are now offering this course on a regular basis.

**General Program/Plan Information**

**Faculty**

Faculty of Engineering

**Academic Unit**

Department of Systems Design Engineering

**Graduate Field of Study**

Systems Design Engineering

**Faculty**

Faculty of Engineering

**Program/Plan Name**

Master of Engineering (MEng) in Systems Design Engineering

**Graduate Credential Type**

Master's

**Accelerated Program**

Not applicable,

**Study Options (New)**

Coursework

**Admit Term(s)**

Fall, Winter, Spring,

**Delivery Mode**

On-campus,

**Length of Program**

- Full-time: 4 terms (16 months)
- Part-time: 8 terms (32 months)

**Graduate Specializations**

- Artificial Intelligence and Machine Learning
- Biomedical Systems
- Human Factors
- Mechatronics and Physical Systems
- Vision, Image and Signal Processing

## Admissions

**Admission Requirements: Minimum Requirements**

- A 4-year Honours Bachelor's degree in engineering. For applicants whose previous degree was completed in Canada, a 75% overall standing in the last two years, or equivalent (at the sole discretion of the University of Waterloo, in all cases), in a four-year Honour's Bachelor's degree in engineering is the minimum requirement for admission to a Master's program.
- Due to the variable nature of international credentials, for applicants whose previous degree was completed outside of Canada, a 75% overall standing in a four-year Honours Bachelor's degree in engineering or equivalent is the minimum requirement for admission.
- Applicants who do not hold a Honours Bachelor's degree in engineering must justify their suitability by demonstrating formal or informal training in engineering through the supplementary information form (SIF), their resume/CV, or other supporting material.
- [English language proficiency \(ELP\)](#) (if applicable)

**Admission Requirements: Application materials**

- Program-specific questions (PSQ)
- Résumé
- Transcript(s)

**Admission Requirements: References**

- Number of references: 2

- Type of references: a minimum of 1 academic reference. Applicants who complete their degree five or more years before the application date may submit 2 professional references.

## Requirements Information

### Graduate Degree Requirements

- Students must complete the course requirements listed below in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).

### Coursework Option: Course Requirements

No Rules

#### Proposed

### Coursework Option: Course Requirements

- Students must complete the following 2 core Systems Design Engineering graduate courses:
  - SYDE 600 Systems Theory, Models, Research & Design
  - 1 of:
    - SYDE 660A Systems Design Graduate Workshop 1 - AI and Machine Learning,
    - SYDE 660B Systems Design Graduate Workshop 1 - Biomedical Systems,
    - SYDE 660C Systems Design Graduate Workshop 1 - Human Factors,

- SYDE 660D Systems Design Graduate Workshop 1 - Mechatronic & Physical Systems,
- SYDE 660E Systems Design Graduate Workshop 1 - Vision, Image & Signal Processing, or
- SYDE 660 Systems Design Graduate Workshop 1
- In addition to the 2 core courses, students must complete 6 Engineering graduate courses (0.50 unit weight per course) counting towards degree credit from the University of Waterloo satisfying the following criteria:
  - At least 2 Systems Design Engineering courses at the 500, 600 or 700 level.
  - At most 2 courses at the 500 level.
  - At most 2 graduate courses may be taken from the Faculty of Mathematics.
- Students in the MEng in Systems Design Engineering program may also choose to pursue one of the following five Graduate Specializations:
  1. Artificial Intelligence and Machine Learning
  2. Biomedical Systems
  3. Human Factors
  4. Mechatronics and Physical Systems
  5. Vision, Image and Signal Processing
- A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the MEng degree and the requirements associated with the Graduate Specialization.
- All MEng Graduate Specializations in Systems Design Engineering consist of a set of 4 graduate (0.50 weight) level courses and this set is comprised of a mix of specified and elective courses. Specified courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization. The requirements for each of the five Graduate Specializations are described below.

#### 1. Graduate Specialization in Artificial Intelligence and Machine Learning

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 522 Machine Intelligence or SYDE 552 Computational Neurosciences
  - SYDE 660A Systems Design Graduate Workshop 1 – AI and Machine Learning
  - SYDE 675 Pattern Recognition
- Elective courses (at least 1 course from the following list):
  - SYDE 662 Systems Design Graduate Workshop 2
  - SYDE 670 Deployment of Deep Learning Models
  - SYDE 671 Advanced Image Processing
  - SYDE 672 Statistical Image Processing
  - SYDE 673 Video Processing & Analytics
  - SYDE 674 3D Computer Vision & Imaging

#### 2. Graduate Specialization in Biomedical Systems

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 660B Systems Design Graduate Workshop 1 – Biomedical Systems
  - At least 2 from the following list:
    - SYDE 544 Biomed Measure & SIP
    - SYDE 684 Materials Biocompatibility
    - SYDE 750 Topic 20 Topics in Systems Modelling: Modeling of Biomechanical Systems
    - SYDE 750 Topic 36 Topics in Systems Modelling: Assistive Tech and Rehab Eng
- Elective courses (at least 1 from the following list or an additional course from the Specified course list)
  - SYDE 552 Computational Neurosciences
  - SYDE 556 Simulating Neurobiological Systems
  - SYDE 652 Dynamics of Multibody Systems
  - SYDE 662 Systems Design Graduate Workshop 2
  - SYDE 677 Medical Imaging
- Note that only one 500 level course may be used to satisfy the requirements of a Graduate Specialization. Therefore, if SYDE 544 is taken as a Specified course, then SYDE 552 and SYDE 556 cannot be taken to satisfy the Elective course requirement.

#### 3. Graduate Specialization in Human Factors

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 660C Systems Design Graduate Workshop 1 – Human Factors
  - At least 2 from the following list:
    - SYDE 542 Interface Design or SYDE 543 Cognitive Ergonomics
    - SYDE 642 Cognitive Engineering Methods
    - SYDE 644 Human Factors Testing
- Elective courses (at least 1 from the following list or an additional course from the Specified course list):
  - SYDE 533 Conflict Resolution
  - SYDE 662 Systems Design Graduate Workshop 2
  - SYDE 740 Advanced Cognitive Ergonomics
- Note that only one 500 level course may be used to satisfy the requirements of a Graduate Specialization. Therefore, if SYDE 542 or SYDE 543 is taken as a Specified course, then SYDE 533 cannot be taken to satisfy the Elective course requirement.

#### 4. Graduate Specialization in Mechatronics and Physical Systems

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 660D Systems Design Graduate Workshop 1 - Mechatronic & Physical Systems

- At least 2 from the following list:
  - SYDE 553 Advanced Dynamics
  - SYDE 652 Dynamics of Multibody Systems
  - SYDE 655 Optimal Control
  - SYDE 682 Advanced MEMS, Physics, Design & Fabrication
  - SYDE 683 Modelling, Simulation & Design of MEMS
  - SYDE 750 Modelling Continuum Systems
- Elective courses (at least 1 from the following list or an additional course from the Specified course list):
  - SYDE 531 Design Opt. under Probabilistic Uncertainty
  - SYDE 631 Time Series Modelling
  - SYDE 661 Model-based robust design
  - SYDE 662 Systems Design Graduate Workshop 2
- Note that only one 500 level course may be used to satisfy the requirements of a Graduate Specialization. Therefore, if SYDE 553 is taken as a Specified course, then SYDE 531 cannot be taken to satisfy the Elective course requirement.

#### 5. Graduate Specialization in Vision, Image and Signal Processing

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 660E Systems Design Graduate Workshop 1 - Vision, Image & Signal Processing
  - At least 2 from the following list:
    - SYDE 575 Image Processing
    - SYDE 671 Advanced Image Processing
    - SYDE 677 Medical Imaging
- Elective courses (at least 1 from the following list or an additional course from the Specified course list):
  - SYDE 544 Biomed Measure & SIP
  - SYDE 633 Remote Sensing Systems
  - SYDE 662 Systems Design Graduate Workshop 2
  - SYDE 672 Statistical Image Processing
  - SYDE 673 Video Processing & Analytics
  - SYDE 674 3D Computer Vision & Imaging
  - SYDE 675 Pattern Recognition
- Note that only one 500 level course may be used to satisfy the requirements of a Graduate Specialization. Therefore, if SYDE 575 is taken as a specified course, then SYDE 544 cannot be taken to satisfy the Elective course requirement.
- All course selections are arranged by the student.
- Note: these requirements are in addition to satisfactory completion of any transitional courses that may be specified at the time of admission.

### Existing

#### Coursework Option: Course Requirements

- Students must complete the following 2 core Systems Design Engineering graduate courses:
  - SYDE 600 Systems Theory, Models, Research & Design
  - 1 of:
    - SYDE 660A Systems Design Graduate Workshop 1 - AI and Machine Learning,
    - SYDE 660B Systems Design Graduate Workshop 1 - Biomedical Systems,
    - SYDE 660C Systems Design Graduate Workshop 1 - Human Factors,
    - SYDE 660D Systems Design Graduate Workshop 1 - Mechatronic & Physical Systems,
    - SYDE 660E Systems Design Graduate Workshop 1 - Vision, Image & Signal Processing, or
    - SYDE 660 Systems Design Graduate Workshop 1
- In addition to the 2 core courses, students must complete 6 Engineering graduate courses (0.50 unit weight per course) counting towards degree credit from the University of Waterloo satisfying the following criteria:
  - At least 2 Systems Design Engineering courses at the 500, 600 or 700 level.
  - At most 2 courses at the 500 level.
  - At most 2 graduate courses may be taken from the Faculty of Mathematics.
- Students in the MEng in Systems Design Engineering program may also choose to pursue one of the following five Graduate Specializations:
  1. Artificial Intelligence and Machine Learning
  2. Biomedical Systems
  3. Human Factors
  4. Mechatronics and Physical Systems
  5. Vision, Image and Signal Processing
- A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the MEng degree and the requirements associated with the Graduate Specialization.
- All MEng Graduate Specializations in Systems Design Engineering consist of a set of 4 graduate (0.50 weight) level courses and this set is comprised of a mix of specified and elective courses. Specified courses are those that are prescribed as part of the Graduate Specialization. Elective courses are those that are on a list of courses designated as electives for a given Graduate Specialization. The requirements for each of the five Graduate Specializations are described below.

#### 1. Graduate Specialization in Artificial Intelligence and Machine Learning

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 522 Machine Intelligence or SYDE 552 Computational Neurosciences
  - SYDE 660A Systems Design Graduate Workshop 1 – AI and Machine Learning
  - SYDE 675 Pattern Recognition
- Elective courses (at least 1 course from the following list):

- SYDE 662 Systems Design Graduate Workshop 2
- SYDE 671 Advanced Image Processing
- SYDE 672 Statistical Image Processing
- SYDE 673 Video Processing & Analytics
- SYDE 674 3D Computer Vision & Imaging
- SYDE 770 Topic 39 Selected Topics in Communication and Information Systems: Deployment of Deep Learning Models

## 2. Graduate Specialization in Biomedical Systems

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 660B Systems Design Graduate Workshop 1 – Biomedical Systems
  - At least 2 from the following list:
    - SYDE 544 Biomed Measure & SIP
    - SYDE 684 Materials Biocompatibility
    - SYDE 750 Topic 20 Topics in Systems Modelling: Modeling of Biomechanical Systems
    - SYDE 750 Topic 36 Topics in Systems Modelling: Assistive Tech and Rehab Eng
- Elective courses (at least 1 from the following list or an additional course from the Specified course list)
  - SYDE 552 Computational Neurosciences
  - SYDE 556 Simulating Neurobiological Systems
  - SYDE 652 Dynamics of Multibody Systems
  - SYDE 662 Systems Design Graduate Workshop 2
  - SYDE 677 Medical Imaging
- Note that only one 500 level course may be used to satisfy the requirements of a Graduate Specialization. Therefore, if SYDE 544 is taken as a Specified course, then SYDE 552 and SYDE 556 cannot be taken to satisfy the Elective course requirement.

## 3. Graduate Specialization in Human Factors

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 660C Systems Design Graduate Workshop 1 – Human Factors
  - At least 2 from the following list:
    - SYDE 542 Interface Design or SYDE 543 Cognitive Ergonomics
    - SYDE 642 Cognitive Engineering Methods
    - SYDE 644 Human Factors Testing
- Elective courses (at least 1 from the following list or an additional course from the Specified course list):
  - SYDE 533 Conflict Resolution
  - SYDE 662 Systems Design Graduate Workshop 2
  - SYDE 740 Advanced Cognitive Ergonomics
- Note that only one 500 level course may be used to satisfy the requirements of a Graduate Specialization. Therefore, if SYDE 542 or SYDE 543 is taken as a Specified course, then SYDE 533 cannot be taken to satisfy the Elective course requirement.

## 4. Graduate Specialization in Mechatronic and Physical Systems

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 660D Systems Design Graduate Workshop 1 - Mechatronic & Physical Systems
  - At least 2 from the following list:
    - SYDE 553 Advanced Dynamics
    - SYDE 652 Dynamics of Multibody Systems
    - SYDE 655 Optimal Control
    - SYDE 682 Advanced MEMS, Physics, Design & Fabrication
    - SYDE 683 Modelling, Simulation & Design of MEMS
    - SYDE 750 Modelling Continuum Systems
- Elective courses (at least 1 from the following list or an additional course from the Specified course list):
  - SYDE 531 Design Opt. under Probabilistic Uncertainty
  - SYDE 631 Time Series Modelling
  - SYDE 661 Model-based robust design
  - SYDE 662 Systems Design Graduate Workshop 2
- Note that only one 500 level course may be used to satisfy the requirements of a Graduate Specialization. Therefore, if SYDE 553 is taken as a Specified course, then SYDE 531 cannot be taken to satisfy the Elective course requirement.

## 5. Graduate Specialization in Vision, Image and Signal Processing

- Students must satisfy the following:
- 3 Specified courses:
  - SYDE 660E Systems Design Graduate Workshop 1 - Vision, Image & Signal Processing
  - At least 2 from the following list:
    - SYDE 575 Image Processing
    - SYDE 671 Advanced Image Processing
    - SYDE 677 Medical Imaging
- Elective courses (at least 1 from the following list or an additional course from the Specified course list):
  - SYDE 544 Biomed Measure & SIP
  - SYDE 633 Remote Sensing Systems
  - SYDE 662 Systems Design Graduate Workshop 2
  - SYDE 672 Statistical Image Processing
  - SYDE 673 Video Processing & Analytics
  - SYDE 674 3D Computer Vision & Imaging
  - SYDE 675 Pattern Recognition

- Note that only one 500 level course may be used to satisfy the requirements of a Graduate Specialization. Therefore, if SYDE 575 is taken as a specified course, then SYDE 544 cannot be taken to satisfy the Elective course requirement.
- All course selections are arranged by the student.
- Note: these requirements are in addition to satisfactory completion of any transitional courses that may be specified at the time of admission.

#### Notes

- [Systems Design Engineering website](#)
- [Master of Engineering \(MEng\) in Systems Design Engineering future graduate students program page](#)

## Specializations

## Undergraduate Plan Guidelines

## Workflow Information

#### Workflow Path

Committee approvals,

#### Faculty/AFIW Path(s) for Workflow

Faculty of Engineering

## Dependencies

# 7.5 Faculty minimum requirements: Faculty of Engineering - 7.5 Faculty minimum requirements: Faculty of Engineering [Top](#)

## Effective Date & Career

#### Career

Graduate,

Proposed

**Effective Term and Year**

Spring 2026

Existing

**Effective Term and Year**

Fall 2024

## Proposal Details

**Proposal Type**

Change,

**Rationale and Background**

Undergraduate students in the Faculty of Engineering are currently allowed to complete some of the work required for the completion of the Master of Applied Science (MASc) degree. Students take graduate courses during their fourth year and may also begin work on their thesis topic thereby facilitating the timely and possibly early completion of the Master's degree. Admission to an Accelerated Master's program normally takes place in the 3A/3B level, with the approval of the department undergraduate and graduate officers.

Updates to the Accelerated Master's program requirements are being made to include the Master of Engineering programs and the Master of Management Science programs. This will create a new pathway for exceptional undergraduate students in the Faculty of Engineering to pursue a professional master's degree who otherwise might not have considered it. This change will help attract quality students to these programs and facilitates the timely and possibly early completion of the master's degree. These changes were discussed at the Engineering Graduate Studies Council on September 23, 2025 and all (applicable) units agreed.

## General Regulation Information

**Type of Regulation**

University-wide,

**Regulation Grouping**

07. Graduate academic roles and degree requirements

**Regulation Page Name**

7.5 Faculty minimum requirements: Faculty of Engineering

## Regulation Details

Proposed

**Regulation Details**

The following sections describe minimum requirements for graduate programs in the Faculty of Engineering. Departments may have additional requirements and/or higher standards.

**Admission requirements**

For Master's and Diploma program applicants who completed their previous relevant degree at a Canadian institution, the Faculty of Engineering requires a minimum overall average of 75% either over 4 years or a minimum overall average of 75% over the last 2 years for admission. For all other applicants, the Faculty of Engineering requires a minimum overall

average of 75% over 4 years in the applicant's previous relevant program for admission.

For Ph D and Non-degree program applicants the Faculty of Engineering requires the University standard of a minimum overall average of 75% in the applicant's previous relevant program for admission. Some departments and programs have additional requirements and/or require a higher admission average.

Applicants to Master's or Diploma programs who do not meet the required minimum overall average may be considered for probationary admission if they meet at least one of the following conditions:

1. A minimum of 78% average in the last year of their bachelor's program (including all credit courses);
2. At least three years of relevant industrial or professional experience following the completion of a bachelor's degree.

The minimum overall degree requirements for probationary students are identical to those of regular students. However, probationary students may be required to complete undergraduate or graduate courses additional to those required of regular Master's students. In addition, at least the first two courses of a probationary student's program should be specified in writing at the time of departmental recommendation for admission. These courses should not be taught by the student's supervisor and the student will need to achieve a minimum grade of 75% (Departments may specify a higher minimum grade in the offer letter) in each course in order to continue in the Master's program as regular students. If the student fails to achieve the required grades their status must be reviewed by the Department Graduate Studies Committee. Normally a student will not continue on probationary status for more than two terms. A student cannot go inactive until their probationary requirements have been cleared.

Probationary admission is not permitted for Doctoral programs.

### **Accelerated Master's programs**

Undergraduate students in the Faculty of Engineering at the University of Waterloo may be allowed to complete some of the work required for the completion of the Master of Applied Science (MASc), Master of Engineering (MEng), or Master of Management Science (MMSc) degree. Students will take graduate courses during their fourth year and may also begin work on their thesis topic thereby facilitating the timely and possibly early completion of the Master's degree. Admission to an Accelerated Master's program will normally take place in the 3A/3B level, with the approval of the department undergraduate and graduate officers.

Students interested in this opportunity should contact the co-ordinator of undergraduate or graduate studies in their department for more information. Also, see the [Accelerated Master's program web page](#).

### **Course requirements**

At least half of the courses for the minimum degree requirements must normally be Faculty of Engineering Graduate Courses.

### **Course grades**

A grade of less than 65% in any graduate course offered within the Faculty of Engineering is considered a failed course. Students in the Faculty of Engineering are required to maintain a cumulative program average of at least 70% to remain in their program. Some programs may have higher required grades and cumulative averages.

If a student fails a course, or their average falls below their program's required minimum, they will automatically undergo a formal academic review by the Graduate Studies Committee within their Department. The outcome of this review will either be (i) a decision to permit the student to remain in the program which will normally also include placing the student on Academic Probation and declaring how and when the student must clear the probationary conditions; or (ii) recommending to the Associate Dean that the student be required to withdraw from the program.

### **Maximum number of courses taken per term**

There is a maximum number of courses in which students registered in the Faculty of Engineering may enroll each term. This maximum applies to both course- and thesis-based students, in both the Master's and Ph D programs.

Full-time students may enroll in a maximum of 1.75 credits of courses (typical full term graduate courses have 0.5 credits, implying a maximum of three 0.5 weight courses) per term, except students in the MArch program within the School of Architecture who (due to differences in course weights), may enroll in maximum of 3.0 credits of courses per term. Additionally, students enrolled in the MBET program within the Conrad School of Entrepreneurship and Business will be exempt from the Faculty maximums due to differences in program structure and may only enroll in prescribed courses as per departmental procedure.

Part-time students may enroll in a maximum of 0.75 credits (e.g. one 0.5 weight course) per term. Similarly to full-time students, MArch and MBET students have alternative part-time maximums due to differences in program structure.

Departments may impose lower maximum values for specific programs. Program specific requirements can be found in the relevant sections of this calendar. It is the student's responsibility to become aware of requirements associated with their specific program.

In exceptional circumstance, full-time students may request to register in an additional course, but this must be approved by the course instructor, the Associate Chair for Graduate Studies, and the Associate Dean for Graduate Studies using the [Graduate studies course drop/add form](#).

### **Program-specific course requirements**

For all thesis-based programs, the course plan is established by the student, their supervisor, and if deemed necessary, with the departmental Associate Chair, Graduate Studies.

### **Master's Programs (including MASc, MEng, MMSc, and MArch)**

A minimum of two-thirds of the courses used for credit towards a Master's degree must be taken from 600 and 700 series graduate courses.

Master's students may be permitted to take a limited number of 500 series courses (400 series in Electrical and Computer Engineering), where 500 series courses are senior undergraduate courses.

### **Doctoral Programs**

Ph D candidates possessing a Master's degree in an appropriate discipline are required to take a minimum of three courses at the 600 or 700 level. Departments may require students to take more than three courses.

Generally, candidates with a Master's degree cannot complete a 500-level course towards their Ph D degree requirements. The inclusion of a 500 level course for credit must be recommended by the candidate's supervisor and the home department's Associate Chair, Graduate Studies prior to enrolling in the course, and it must be approved by the Associate Dean, Graduate Studies.

Ph D candidates without a completed Master's degree in an appropriate discipline are required to complete at least seven courses, of which a minimum of five must be at the 600 or 700 level. Up to two 500-level courses can be completed towards the candidate's program requirements. The inclusion of additional 500 level courses for credit must be recommended by the candidate's supervisor and the home department's Associate Chair, Graduate Studies prior to enrolling in the course, and it must be approved by the Associate Dean, Graduate Studies.

In all cases, departments may have more restrictive policies on the types of courses that may be used for credit towards a degree.

### **Courses taught by supervisor or co-supervisor**

To ensure students receive a diversity of experience in teaching methods, academic feedback, and evaluations, the Faculty of Engineering requires that at least one half of the course credits required as part of the student's program be taught by instructors other than the student's supervisor or co-supervisor(s). In the case where a student has two or more co-supervisors and there is compelling academic justification, a student can petition their Department and the Associate Dean, Graduate Studies to reduce this requirement and thereby receive credit for additional courses taught by the student's supervisors. This petition should be submitted prior to enrolling in a course for which credit is desired.

### **MASc thesis acceptance and examination**

#### [Master's degree with thesis](#)

In the Faculty of Engineering, the required display period for the MASc thesis is fifteen business days.

### **MASc Thesis Committee**

The purpose of the Thesis Committee is to evaluate the student's scholarly work which is the culmination of the research. In the Faculty of Engineering, the Thesis Committee (in some departments called the Reading Committee and in others the Examining Committee) will consist of a minimum of two examiners who are not the student's supervisor(s). The Faculty of Engineering has adopted the University regulations regarding committee composition.

It is the responsibility of the student's supervisor or the Departmental Graduate Officer to identify appropriate members for the Thesis Committee.

Departments may set additional requirements. Please check the relevant sections of this calendar for further information, or with the appropriate department authority. It is the student's responsibility to become aware of requirements which are in addition to the stated minima.

### **Ph D Comprehensive Examination milestone**

Ph D students in the Faculty of Engineering are required to successfully complete the Ph D Comprehensive Examination milestone.

The [Ph D Comprehensive Examination](#) consists of an oral examination conducted at the University of Waterloo with the candidate and members of the Comprehensive Examining Committee present. In the Faculty of Engineering, the examination serves to determine that Ph D students have:

1. The capacity to communicate clearly in both oral and written form;
2. The appropriate breadth and depth of knowledge of the field of study and the background necessary to be successful in their Ph D program; and
3. Developed a research proposal that is novel, is of the appropriate scope for a Ph D, and is likely to be feasible (e.g. required resources are available; candidate has appropriate knowledge/skill, etc.).

The format of the comprehensive examination may vary by department. In some departments, there is a single examination which addresses all three of the purposes listed above. In other departments, the Ph D Comprehensive Examination is divided into two separate milestones, with the first focusing on the background preparation of the student (items 1 and 2 from the list above) and the second focusing on the research proposal (items 1 and 3 from the list above). The Comprehensive Examining Committee requirements described below do not apply to the committee for the Background Exam for Departments which have two separate milestones.

### **Comprehensive Examining Committee**

In Engineering, the Comprehensive Examining Committee will consist of a minimum of three examiners (one more than the University minimum requirements) in addition to the student's supervisor(s). These examiners must satisfy the following conditions:

- must hold a Ph D or equivalent degree;
- at most one can hold an adjunct appointment or emeritus status;
- at least one, in addition to the supervisor, must be from the student's home department and hold a tenure or tenure track position;
- at least one must be from outside the student's home department.

It is the responsibility of the student's supervisor to recommend appropriate members for the Examining Committee. The composition of the comprehensive examining committee will be approved by the Associate Dean, Graduate Studies for the student's Faculty, or delegate.

The comprehensive exam shall be chaired by a tenured or tenure-track faculty member at the University of Waterloo with Sole-Supervisory Privilege Status (SSPS2), normally external to the student's home Department/School. The Chair is a non-voting member of the comprehensive examining committee.

### Research Proposal requirements

The research proposal will consist of a double spaced report of no more than 50 pages including tables, diagrams, and references.

The proposal should:

1. identify the research problem,
2. review the relevant literature,
3. describe the approach that is proposed to solve the problem and how this approach and/or the expected outcomes are novel,
4. identify resources (e.g. data, equipment, space, etc.) that will be needed to carry out the research and how these resources have been or will be acquired, and
5. propose a timetable for the completion of the project, including the defense of the Ph D thesis. With approval from their supervisor, a student may wish to distribute background working papers to members of the Committee to provide further evidence of background preparation.

As per [University regulations](#), students are required to ensure that the research proposal does not violate academic integrity, including plagiarism.

### Distributing the proposal

Students must submit a copy of their proposal to each member of their committee at least two weeks before the date of the comprehensive examination.

Departments may set additional requirements. Please check the relevant sections of this calendar for further information, or with the appropriate department authority. It is the student's responsibility to become aware of any department requirements which are in addition to the stated Faculty of Engineering minima.

### Comprehensive Examination timeline

Students enrolled in a Ph D program in the Faculty of Engineering must complete their Comprehensive Examination by the end of the term specified below. Note that all students, regardless of Ph D program, must have their Comprehensive Examination complete before the end of their 7th term of enrolment otherwise they will be required to withdraw from their program.

Program	Comprehensive Examination must be completed before the end of
Students with a Master's degree (Ph D2)	4th term
Students admitted directly to Ph D from the Bachelor's degree (Ph D3)	6th term
Students who transfer to Ph D without completing Master's degree and who do not hold a Master's degree (Ph D3 transfer)	the earlier of either: <ul style="list-style-type: none"> <li>• four terms from the first term the student was registered in the Ph D program, or</li> <li>• six terms from the beginning of the student's Master's program</li> </ul>

Note: in establishing the above timelines, each term of full-time enrollment counts as one term and each term of part-time enrollment counts as 0.5 terms.

### Comprehensive Examination extension requests

The Faculty of Engineering adheres to the [University's regulations](#) with respect to petitions for extensions to the above stated examination deadlines.

### Ph D thesis acceptance and examination

#### Ph D minimum requirements

In the Faculty of Engineering, the required display period for the Doctoral thesis is twenty-five business days. External Examiners must be approved by the Associate Dean for Graduate Studies prior to the thesis being accepted for display by the Engineering Graduate Studies Office.

Departments may set additional requirements. Please check the relevant sections of this calendar for further information, or with the appropriate department authority. It is the student's responsibility to become aware of requirements which are in addition to the stated minima.

Existing

Regulation Details

The following sections describe minimum requirements for graduate programs in the Faculty of Engineering. Departments may have additional requirements and/or higher standards.

## Admission requirements

For Master's and Diploma program applicants who completed their previous relevant degree at a Canadian institution, the Faculty of Engineering requires a minimum overall average of 75% either over 4 years or a minimum overall average of 75% over the last 2 years for admission. For all other applicants, the Faculty of Engineering requires a minimum overall average of 75% over 4 years in the applicant's previous relevant program for admission.

For Ph D and Non-degree program applicants the Faculty of Engineering requires the University standard of a minimum overall average of 75% in the applicant's previous relevant program for admission. Some departments and programs have additional requirements and/or require a higher admission average.

Applicants to Master's or Diploma programs who do not meet the required minimum overall average may be considered for probationary admission if they meet at least one of the following conditions:

1. A minimum of 78% average in the last year of their bachelor's program (including all credit courses);
2. At least three years of relevant industrial or professional experience following the completion of a bachelor's degree.

The minimum overall degree requirements for probationary students are identical to those of regular students. However, probationary students may be required to complete undergraduate or graduate courses additional to those required of regular Master's students. In addition, at least the first two courses of a probationary student's program should be specified in writing at the time of departmental recommendation for admission. These courses should not be taught by the student's supervisor and the student will need to achieve a minimum grade of 75% (Departments may specify a higher minimum grade in the offer letter) in each course in order to continue in the Master's program as regular students. If the student fails to achieve the required grades their status must be reviewed by the Department Graduate Studies Committee. Normally a student will not continue on probationary status for more than two terms. A student cannot go inactive until their probationary requirements have been cleared.

Probationary admission is not permitted for Doctoral programs.

## Accelerated Master's programs

Undergraduate students in the Faculty of Engineering at the University of Waterloo may be allowed to complete some of the work required for the completion of the Master of Applied Science (MAsc) degree. Students will take graduate courses during their fourth year and may also begin work on their thesis topic thereby facilitating the timely and possibly early completion of the Master's degree. Admission to an Accelerated Master's program will normally take place in the 3A/3B level, with the approval of the department undergraduate and graduate officers.

Students interested in this opportunity should contact the co-ordinator of undergraduate or graduate studies in their department for more information. Also, see the [Accelerated Master's program web page](#).

## Course requirements

At least half of the courses for the minimum degree requirements must normally be Faculty of Engineering Graduate Courses.

### Course grades

A grade of less than 65% in any graduate course offered within the Faculty of Engineering is considered a failed course. Students in the Faculty of Engineering are required to maintain a cumulative program average of at least 70% to remain in their program. Some programs may have higher required grades and cumulative averages.

If a student fails a course, or their average falls below their program's required minimum, they will automatically undergo a formal academic review by the Graduate Studies Committee within their Department. The outcome of this review will either be (i) a decision to permit the student to remain in the program which will normally also include placing the student on Academic Probation and declaring how and when the student must clear the probationary conditions; or (ii) recommending to the Associate Dean that the student be required to withdraw from the program.

### Maximum number of courses taken per term

There is a maximum number of courses in which students registered in the Faculty of Engineering may enroll each term. This maximum applies to both course- and thesis-based students, in both the Master's and Ph D programs.

Full-time students may enroll in a maximum of 1.75 credits of courses (typical full term graduate courses have 0.5 credits, implying a maximum of three 0.5 weight courses) per term, except students in the MArch program within the School of Architecture who (due to differences in course weights), may enroll in maximum of 3.0 credits of courses per term. Additionally, students enrolled in the MBET program within the Conrad School of Entrepreneurship and Business will be exempt from the Faculty maximums due to differences in program structure and may only enroll in prescribed courses as per departmental procedure.

Part-time students may enroll in a maximum of 0.75 credits (e.g. one 0.5 weight course) per term. Similarly to full-time students, MArch and MBET students have alternative part-time maximums due to differences in program structure.

Departments may impose lower maximum values for specific programs. Program specific requirements can be found in the relevant sections of this calendar. It is the student's responsibility to become aware of requirements associated with their specific program.

In exceptional circumstance, full-time students may request to register in an additional course, but this must be approved by the course instructor, the Associate Chair for Graduate Studies, and the Associate Dean for Graduate Studies using the [Graduate studies course drop/add form](#).

## Program-specific course requirements

For all thesis-based programs, the course plan is established by the student, their supervisor, and if deemed necessary, with the departmental Associate Chair, Graduate Studies.

### **Master's Programs (including MASc, MEng, MMSc, and MArch)**

A minimum of two-thirds of the courses used for credit towards a Master's degree must be taken from 600 and 700 series graduate courses.

Master's students may be permitted to take a limited number of 500 series courses (400 series in Electrical and Computer Engineering), where 500 series courses are senior undergraduate courses.

### **Doctoral Programs**

Ph D candidates possessing a Master's degree in an appropriate discipline are required to take a minimum of three courses at the 600 or 700 level. Departments may require students to take more than three courses.

Generally, candidates with a Master's degree cannot complete a 500-level course towards their Ph D degree requirements. The inclusion of a 500 level course for credit must be recommended by the candidate's supervisor and the home department's Associate Chair, Graduate Studies prior to enrolling in the course, and it must be approved by the Associate Dean, Graduate Studies.

Ph D candidates without a completed Master's degree in an appropriate discipline are required to complete at least seven courses, of which a minimum of five must be at the 600 or 700 level. Up to two 500-level courses can be completed towards the candidate's program requirements. The inclusion of additional 500 level courses for credit must be recommended by the candidate's supervisor and the home department's Associate Chair, Graduate Studies prior to enrolling in the course, and it must be approved by the Associate Dean, Graduate Studies.

In all cases, departments may have more restrictive policies on the types of courses that may be used for credit towards a degree.

### **Courses taught by supervisor or co-supervisor**

To ensure students receive a diversity of experience in teaching methods, academic feedback, and evaluations, the Faculty of Engineering requires that at least one half of the course credits required as part of the student's program be taught by instructors other than the student's supervisor or co-supervisor(s). In the case where a student has two or more co-supervisors and there is compelling academic justification, a student can petition their Department and the Associate Dean, Graduate Studies to reduce this requirement and thereby receive credit for additional courses taught by the student's supervisors. This petition should be submitted prior to enrolling in a course for which credit is desired.

### **MASc thesis acceptance and examination**

#### [Master's degree with thesis](#)

In the Faculty of Engineering, the required display period for the MASc thesis is fifteen business days.

#### **MASc Thesis Committee**

The purpose of the Thesis Committee is to evaluate the student's scholarly work which is the culmination of the research. In the Faculty of Engineering, the Thesis Committee (in some departments called the Reading Committee and in others the Examining Committee) will consist of a minimum of two examiners who are not the student's supervisor(s). The Faculty of Engineering has adopted the University regulations regarding committee composition.

It is the responsibility of the student's supervisor or the Departmental Graduate Officer to identify appropriate members for the Thesis Committee.

Departments may set additional requirements. Please check the relevant sections of this calendar for further information, or with the appropriate department authority. It is the student's responsibility to become aware of requirements which are in addition to the stated minima.

### **Ph D Comprehensive Examination milestone**

Ph D students in the Faculty of Engineering are required to successfully complete the Ph D Comprehensive Examination milestone.

The [Ph D Comprehensive Examination](#) consists of an oral examination conducted at the University of Waterloo with the candidate and members of the Comprehensive Examining Committee present. In the Faculty of Engineering, the examination serves to determine that Ph D students have:

1. The capacity to communicate clearly in both oral and written form;
2. The appropriate breadth and depth of knowledge of the field of study and the background necessary to be successful in their Ph D program; and
3. Developed a research proposal that is novel, is of the appropriate scope for a Ph D, and is likely to be feasible (e.g. required resources are available; candidate has appropriate knowledge/skill, etc.).

The format of the comprehensive examination may vary by department. In some departments, there is a single examination which addresses all three of the purposes listed above. In other departments, the Ph D Comprehensive Examination is divided into two separate milestones, with the first focusing on the background preparation of the student (items 1 and 2 from the list above) and the second focusing on the research proposal (items 1 and 3 from the list above). The Comprehensive Examining Committee requirements described below do not apply to the committee for the Background Exam for Departments which have two separate milestones.

#### **Comprehensive Examining Committee**

In Engineering, the Comprehensive Examining Committee will consist of a minimum of three examiners (one more than

the University minimum requirements) in addition to the student's supervisor(s). These examiners must satisfy the following conditions:

- must hold a Ph D or equivalent degree;
- at most one can hold an adjunct appointment or emeritus status;
- at least one, in addition to the supervisor, must be from the student's home department and hold a tenure or tenure track position;
- at least one must be from outside the student's home department.

It is the responsibility of the student's supervisor to recommend appropriate members for the Examining Committee. The composition of the comprehensive examining committee will be approved by the Associate Dean, Graduate Studies for the student's Faculty, or delegate.

The comprehensive exam shall be chaired by a tenured or tenure-track faculty member at the University of Waterloo with Sole-Supervisory Privilege Status (SSPS2), normally external to the student's home Department/School. The Chair is a non-voting member of the comprehensive examining committee.

### Research Proposal requirements

The research proposal will consist of a double spaced report of no more than 50 pages including tables, diagrams, and references.

The proposal should:

1. identify the research problem,
2. review the relevant literature,
3. describe the approach that is proposed to solve the problem and how this approach and/or the expected outcomes are novel,
4. identify resources (e.g. data, equipment, space, etc.) that will be needed to carry out the research and how these resources have been or will be acquired, and
5. propose a timetable for the completion of the project, including the defense of the Ph D thesis. With approval from their supervisor, a student may wish to distribute background working papers to members of the Committee to provide further evidence of background preparation.

As per [University regulations](#), students are required to ensure that the research proposal does not violate academic integrity, including plagiarism.

### Distributing the proposal

Students must submit a copy of their proposal to each member of their committee at least two weeks before the date of the comprehensive examination.

Departments may set additional requirements. Please check the relevant sections of this calendar for further information, or with the appropriate department authority. It is the student's responsibility to become aware of any department requirements which are in addition to the stated Faculty of Engineering minima.

### Comprehensive Examination timeline

Students enrolled in a Ph D program in the Faculty of Engineering must complete their Comprehensive Examination by the end of the term specified below. Note that all students, regardless of Ph D program, must have their Comprehensive Examination complete before the end of their 7th term of enrolment otherwise they will be required to withdraw from their program.

Program	Comprehensive Examination must be completed before the end of
Students with a Master's degree (Ph D2)	4th term
Students admitted directly to Ph D from the Bachelor's degree (Ph D3)	6th term
Students who transfer to Ph D without completing Master's degree and who do not hold a Master's degree (Ph D3 transfer)	the earlier of either: <ul style="list-style-type: none"> <li>• four terms from the first term the student was registered in the Ph D program, or</li> <li>• six terms from the beginning of the student's Master's program</li> </ul>

Note: in establishing the above timelines, each term of full-time enrollment counts as one term and each term of part-time enrollment counts as 0.5 terms.

### Comprehensive Examination extension requests

The Faculty of Engineering adheres to the [University's regulations](#) with respect to petitions for extensions to the above stated examination deadlines.

### Ph D thesis acceptance and examination

#### [Ph D minimum requirements](#)

In the Faculty of Engineering, the required display period for the Doctoral thesis is twenty-five business days. External Examiners must be approved by the Associate Dean for Graduate Studies prior to the thesis being accepted for display by

the Engineering Graduate Studies Office.

Departments may set additional requirements. Please check the relevant sections of this calendar for further information, or with the appropriate department authority. It is the student's responsibility to become aware of requirements which are in addition to the stated minima.

## Workflow Information

**Workflow Path**

Committee approvals,

**Faculty/AFIW Path(s) for Workflow**

Faculty of Engineering

**FACULTY OF ENVIRONMENT - GRADUATE STUDIES COMMITTEE**

**REPORT TO SENATE GRADUATE COUNCIL**

**January 2026**

1. Program and Course Changes
  - a. Course addition: GEOG 699 new Capstone project course
  - b. Master of Climate Change
    - i. Coursework Option program revision - Making the new GEMCC 699 Graduate Capstone Project course a required course (which then reduces the climate change elective options to 2 from 3), and removing GEMCC 690 Climate Change Projects
    - ii. Course addition: GEMCC 699 Graduate Capstone Project
    - iii. Course inactivation: GEMCC 690 Climate Change Projects
    - iv. Internship Option program revision - adding the new GEMCC 699 Graduate Capstone Project course to the list of climate change elective options and removing GEMCC 690 Climate Change projects from the list of climate change elective options along with updating the internship option to be a transfer-in only option.
  - c. Graduate Diploma in Climate Change program revision - Formally adding GEMCC 614 Climate Services to the list of climate change course options
  - d. Course addition: SUSM 665 Life Cycle Assessment

Prior to form submission, review the [instructions](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Environment

**Effective date:** Term: Spring Year: 2026

### Milestone

Note: milestone changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Choose an item.
- Inactivate: Choose an item.
- Revise: from Choose an item. to Choose an item.

### Course

Note: some course changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Complete all course elements below
- Inactivate: Complete the following course elements:  
Course subject code, Course number, Course title
- Revise: Complete all course elements below to reflect the proposed change(s) and identify the course elements being revised (*e.g. Course description, Course title*):

**Course elements** (complete as indicated above. Review the [glossary of terms](#) for details on course elements)

Course subject code: GEOG

Course number: 699

Course title (max. 100 characters including spaces): Graduate Capstone Project

Course short title (max. 30 characters including spaces): Graduate Capstone Project

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Not required

Course description: This capstone course allows graduate students to synthesize and apply knowledge developed throughout their coursework to help solve a specific problem. Students will work with the course instructor to identify a topic relevant to their area of study (e.g., tourism and environmental change, land-use change, climate change), propose methods, and complete the capstone project. This capstone project must be distinct from other coursework and students' Master's research paper (MRP) or thesis.

Course component(s): Seminar (SEM) Lecture (LEC) Choose an item. Choose an item.

Primary course component: Seminar (SEM)

Requisites (identify antirequisites, corequisites, or prerequisites if applicable to the course): N/A

Special topics course: Yes  No

Special topics course total completions allowed (max. 30):

Can students enrol in multiple sections of the same special topics course in the same term? Yes  No

Cross-listed course: Yes  No

If yes, list the course subject code(s) and number(s) that this course is/will be cross-listed with: GEMCC 699

Note: cross-listed courses must share all course elements except the subject code(s), course number(s), and requisites, and require a separate Graduate Studies Course/Milestone form submission for each course.

**Rationale for request:** This course provides an opportunity to complete a research project as part of a graduate program of study. This provides a capstone experience for students completing a Master's program under a coursework option.

**Form completed by:** Maria Strack

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 10/28/25

**Department/School approval date** (mm/dd/yy): 10/29/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/31/25

**Faculty Council approval date** (mm/dd/yy): 11/13/25

Prior to form submission, review the [instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Environment

**Program:** Master of Climate Change (MCC)

**Program contact name(s):** Teresa Wilson, Wesley Van Wychen

**Form completed by:** Teresa Wilson

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*Changing the requirements of the Master of Climate Change (coursework only option) to include the completion of GEMCC 699 Graduate Capstone Project course (a new course to be added Spring 2026).*

**Is this a [major modification](#) to the program?** No

**Rationale for change(s):**

*We intend on making the GEMCC 699 Graduate Capstone Project course a requirement for the coursework only option of the Master of Climate Change program. The rationale for this is to provide practical research and work experience within the discipline of climate change to all students. The goal is to emphasize practical skills development in the field of climate change that builds from the foundational knowledge that students would have learned in all their other GEMCC required and elective courses. This change ensures a similar project-based learning environment for students within the MCC coursework option as those that opt for the MCC internship option. This change also helps prepare students with the skills needed as they move into the job-market or continue along a graduate studies path.*

**Proposed effective date:** Term: Spring Year: 2026

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/HJVu29T1eI>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Coursework option: Course requirements</b></p> <ul style="list-style-type: none"> <li>• Students must successfully complete the following graduate level courses (0.50 unit weight per course):</li> <li>• 3 required courses:               <ul style="list-style-type: none"> <li>○ GEMCC 601 Climate Change: Physical Science Basis</li> </ul> </li> </ul>	<p><b>Coursework option: Course requirements</b></p> <ul style="list-style-type: none"> <li>• Students must successfully complete the following graduate level courses (0.50 unit weight per course):</li> <li>• 4 required courses:               <ul style="list-style-type: none"> <li>○ GEMCC 601 Climate Change: Physical Science Basis</li> </ul> </li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>○ GEMCC 602 Climate Change Vulnerability and Adaptation</li> <li>○ GEMCC 603 Climate Change Mitigation</li> <li>• 3 climate change electives: <ul style="list-style-type: none"> <li>○ Students are able to tailor their program of study based on their individual interests by completing 3 climate change designated electives which can be chosen from, but are not limited to, the following list. The availability of climate change designated electives varies year-to-year, including newly approved courses. <ul style="list-style-type: none"> <li>▪ GEMCC 610 Climate Prediction, Modeling and Scenarios</li> <li>▪ GEMCC 614 Climate Services</li> <li>▪ GEMCC 620 Climate Data and Analytics</li> <li>▪ GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction</li> <li>▪ GEMCC 630 Land Use and the Carbon Cycle</li> <li>▪ GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation</li> <li>▪ GEMCC 644 Climate Resilient Canadians and Health Systems</li> <li>▪ GEMCC 650/ENBUS 652 Business and Climate Change</li> <li>▪ GEMCC 652/PLAN 627 Climate Change and Community Planning</li> <li>▪ GEMCC 653/FCIT 606 Sustainability Transitions in Cities</li> <li>▪ GEMCC 660 Carbon Accounting and Management</li> <li>▪ <del>GEMCC 690 Climate Change Projects</del></li> </ul> </li> </ul> </li> <li>• 2 open electives chosen from the climate change designated electives list, partnering programs within the Faculty of Environment (subject to meeting pre-requisites and available capacity), and graduate programs offered by other Faculties (subject to meeting pre-requisites and available capacity).</li> <li>• Failure to maintain a program average of 75% or better results in an automatic review of the student's status in the program. The review committee will consist of the Program Director</li> </ul>	<ul style="list-style-type: none"> <li>○ GEMCC 602 Climate Change Vulnerability and Adaptation</li> <li>○ GEMCC 603 Climate Change Mitigation</li> <li>○ <u>GEMCC 699 / GEOG 699 Graduate Capstone Project</u></li> <li>• 2 climate change electives: <ul style="list-style-type: none"> <li>○ Students are able to tailor their program of study based on their individual interests by completing 2 climate change designated electives which can be chosen from, but are not limited to, the following list. The availability of climate change designated electives varies year-to-year, including newly approved courses. <ul style="list-style-type: none"> <li>▪ GEMCC 610 Climate Prediction, Modeling and Scenarios</li> <li>▪ GEMCC 614 Climate Services</li> <li>▪ GEMCC 620 Climate Data and Analytics</li> <li>▪ GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction</li> <li>▪ GEMCC 630 Land Use and the Carbon Cycle</li> <li>▪ GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation</li> <li>▪ GEMCC 644 Climate Resilient Canadians and Health Systems</li> <li>▪ GEMCC 650/ENBUS 652 Business and Climate Change</li> <li>▪ GEMCC 652/PLAN 627 Climate Change and Community Planning</li> <li>▪ GEMCC 653/FCIT 606 Sustainability Transitions in Cities</li> <li>▪ GEMCC 660 Carbon Accounting and Management</li> </ul> </li> </ul> </li> <li>• 2 open electives chosen from the climate change designated electives list, partnering programs within the Faculty of Environment (subject to meeting pre-requisites and available capacity), and graduate programs offered by other Faculties (subject to meeting pre-requisites and available capacity).</li> <li>• Failure to maintain a program average of 75% or better results in an automatic review of the student's status in the program. The review committee will consist of the Program Director</li> </ul>

<b>Current Graduate Studies Academic Calendar content:</b>	<b>Proposed Graduate Studies Academic Calendar content:</b>
and the Department Chair. The review committee may require that the student withdraw from the program.	and the Department Chair. The review committee may require that the student withdraw from the program.

**How will students currently registered in the program be impacted by these changes?**

*Students who entered the coursework only option before the addition of the required projects course (i.e. before Spring 2026) will not be required to complete the projects course. They can follow the requirements which were in effect in the term in which they entered in the coursework only option.*

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 10/10/25

**Department/School approval date** (mm/dd/yy): 10/29/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/31/25

**Faculty Council approval date** (mm/dd/yy): 11/13/25

Prior to form submission, review the [instructions](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Environment

**Effective date:** Term: Spring Year: 2026

### Milestone

Note: milestone changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Choose an item.
- Inactivate: Choose an item.
- Revise: from Choose an item. to Choose an item.

### Course

Note: some course changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Complete all course elements below
- Inactivate: Complete the following course elements:  
Course subject code, Course number, Course title
- Revise: Complete all course elements below to reflect the proposed change(s) and identify the course elements being revised (*e.g. Course description, Course title*):

**Course elements** (complete as indicated above. Review the [glossary of terms](#) for details on course elements)

Course subject code: GEMCC

Course number: 699

Course title (max. 100 characters including spaces): Graduate Capstone Project

Course short title (max. 30 characters including spaces): Graduate Capstone Project

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Not required

Course description: This capstone course allows graduate students to synthesize and apply knowledge developed throughout their coursework to help solve a specific problem. Students will work with the course instructor to identify a topic relevant to their area of study (e.g., tourism and environmental change, land-use change, climate change), propose methods, and complete the capstone project. This capstone project must be distinct from other coursework and students' Master's research paper (MRP) or thesis.

Course component(s): Seminar (SEM) Lecture (LEC) Choose an item. Choose an item.

Primary course component: Seminar (SEM)

Requisites (identify antirequisites, corequisites, or prerequisites if applicable to the course):

Prerequisite: Master of Climate Change students only

Special topics course: Yes  No

Special topics course total completions allowed (max. 30):

Can students enrol in multiple sections of the same special topics course in the same term? Yes  No

Cross-listed course: Yes  No

If yes, list the course subject code(s) and number(s) that this course is/will be cross-listed with:

Note: cross-listed courses must share all course elements except the subject code(s), course number(s), and requisites, and require a separate Graduate Studies Course/Milestone form submission for each course.

GEOG 699 Graduate Capstone Project

**Rationale for request:** This course provides an opportunity to complete a research project as part of a graduate program of study. This provides a capstone experience for students completing a Master's program under a coursework option.

**Form completed by:** Teresa Wilson

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 10/28/25

**Department/School approval date** (mm/dd/yy): 10/29/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/31/25

**Faculty Council approval date** (mm/dd/yy): 11/13/25

Prior to form submission, review the [instructions](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Environment

**Effective date:** Term: Spring Year: 2026

### Milestone

Note: milestone changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Choose an item.
- Inactivate: Choose an item.
- Revise: from Choose an item. to Choose an item.

### Course

Note: some course changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Complete all course elements below
- Inactivate: Complete the following course elements:  
Course subject code, Course number, Course title
- Revise: Complete all course elements below to reflect the proposed change(s) and identify the course elements being revised (*e.g. Course description, Course title*):

**Course elements** (complete as indicated above. Review the [glossary of terms](#) for details on course elements)

Course subject code: GEMCC

Course number: 690

Course title (max. 100 characters including spaces): Climate Change Projects

Course short title (max. 30 characters including spaces):

Grading basis: Choose an item.

Course credit weight: Choose an item.

Course consent required: Choose an item.

Course description:

Course component(s): Choose an item. Choose an item. Choose an item. Choose an item.

Primary course component: Choose an item.

Requisites (identify antirequisites, corequisites, or prerequisites if applicable to the course):

Special topics course: Yes  No

Special topics course total completions allowed (max. 30):

Can students enrol in multiple sections of the same special topics course in the same term? Yes  No

Cross-listed course: Yes  No

If yes, list the course subject code(s) and number(s) that this course is/will be cross-listed with:

Note: cross-listed courses must share all course elements except the subject code(s), course number(s), and requisites, and require a separate Graduate Studies Course/Milestone form submission for each course.

**Rationale for request:** This course is being replaced with a new capstone project course.

**Form completed by:** Teresa Wilson

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 10/28/25

**Department/School approval date** (mm/dd/yy): 10/29/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/31/25

**Faculty Council approval date** (mm/dd/yy): 11/13/25

Prior to form submission, review the [instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Environment

**Program:** Master of Climate Change (MCC) - Internship

**Program contact name(s):** Teresa Wilson, Wesley Van Wychen

**Form completed by:** Teresa Wilson

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*Changing the entry method of the Master of Climate Change - Internship option from direct entry to transfer entry.*

Is this a [major modification](#) to the program? No

**Rationale for change(s):**

*The Master of Climate Change program recently launched a 'Coursework Only' option to provide a new pathway to degree completion. The program would like the 'Coursework Only' option to be the only direct entry point to the program as this is a pathway to degree completion without relying on the external job market which has become more variable in recent years. Students transitioning to the 'Master of Climate Change - Internship' option will be expected to complete and demonstrate competency in the three core MCC courses (GEMCC 601; GEMCC 602; GEMCC 603) before they are able to transfer, and they are expected to find their own climate change themed internship.*

*Minor updates are being made to the list of climate change elective options – removing GEMCC 690 Climate Change Projects (which is being inactivated) and adding GEMCC 699 Graduate Capstone Project.*

**Proposed effective date:** Term: Spring Year: 2026

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/S176gkR0s3>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Admit term(s)</b></p> <ul style="list-style-type: none"> <li>• Fall</li> </ul> <p><b>Registration option(s)</b></p> <ul style="list-style-type: none"> <li>• Full-time</li> <li>• Part-time</li> </ul> <p><b>Length of program</b></p> <ul style="list-style-type: none"> <li>• Full-time: 3 terms (12 months)</li> </ul>	<p><b>Admit term(s)</b></p> <ul style="list-style-type: none"> <li>• Fall</li> <li>• <u>Winter</u></li> <li>• <u>Spring</u></li> </ul> <p><b>Registration option(s)</b></p> <ul style="list-style-type: none"> <li>• Full-time</li> <li>• Part-time</li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>• Part-time: 8 terms (32 months)</li> </ul> <p><b>Admission requirements: Minimum requirements</b></p> <ul style="list-style-type: none"> <li>• <del>Students must have completed a four year honours Bachelor degree (or equivalent) in a humanities, social science, health, engineering, science, or business discipline with an overall average of at least 75% in the final 20 courses (or last 2 years).</del></li> <li>• <del><a href="#">English language proficiency (ELP)</a> (if applicable)</del></li> </ul> <p><b>Admission requirements: Application materials</b></p> <ul style="list-style-type: none"> <li>• <del>Résumé</del></li> <li>• <del>Supplementary information form</del></li> <li>• <del>Transcript(s)</del></li> </ul> <p><b>Admission requirements: References</b></p> <ul style="list-style-type: none"> <li>• <del>Number of references: 3</del></li> <li>• <del>Type of references: normally from academic sources, but may be from professional sources.</del></li> </ul> <p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>• Students must complete the course and milestone requirements listed below in addition to the <a href="#">Graduate Academic Integrity Module (Graduate AIM)</a>.</li> </ul> <p><b>Coursework option: Course requirements</b></p> <ul style="list-style-type: none"> <li>• Students must successfully complete the following graduate level courses (0.50 unit weight per course):</li> <li>• 3 required courses: <ul style="list-style-type: none"> <li>○ GEMCC 601 Climate Change: Physical Science Basis</li> <li>○ GEMCC 602 Climate Change Vulnerability and Adaptation</li> <li>○ GEMCC 603 Climate Change Mitigation</li> </ul> </li> <li>• 2 climate change electives: <ul style="list-style-type: none"> <li>○ Students are able to tailor their program of study based on their individual interests by completing 2 climate change designated electives which can be chosen from, but are not limited to, the following list. The availability of climate change designated electives varies year-to-year, including newly approved courses. <ul style="list-style-type: none"> <li>▪ GEMCC 610 Climate Prediction, Modeling and Scenarios</li> <li>▪ GEMCC 614 Climate Services</li> </ul> </li> </ul> </li> </ul>	<p><b>Length of program</b></p> <ul style="list-style-type: none"> <li>• Full-time: 3 terms (12 months)</li> <li>• Part-time: 8 terms (32 months)</li> </ul> <p><b>Admission requirements: Minimum requirements</b></p> <ul style="list-style-type: none"> <li>• <u>Students in the Master of Climate Change (MCC) program can apply to transfer into the Master of Climate Change (MCC) - Internship program option after completing at minimum the following three core courses: GEMCC 601, GEMCC 602, GEMCC 603. Admittance will be decided based on the student's progress to date and is subject to approval by the Program Director and the Department Chair.</u></li> </ul> <p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>• Students must complete the course and milestone requirements listed below in addition to the <a href="#">Graduate Academic Integrity Module (Graduate AIM)</a>.</li> </ul> <p><b>Coursework option: Course requirements</b></p> <ul style="list-style-type: none"> <li>• Students must successfully complete the following graduate level courses (0.50 unit weight per course):</li> <li>• 3 required courses: <ul style="list-style-type: none"> <li>○ GEMCC 601 Climate Change: Physical Science Basis</li> <li>○ GEMCC 602 Climate Change Vulnerability and Adaptation</li> <li>○ GEMCC 603 Climate Change Mitigation</li> </ul> </li> <li>• 2 climate change electives: <ul style="list-style-type: none"> <li>○ Students are able to tailor their program of study based on their individual interests by completing 2 climate change designated electives which can be chosen from, but are not limited to, the following list. The availability of climate change designated electives varies year-to-year, including newly approved courses. <ul style="list-style-type: none"> <li>▪ GEMCC 610 Climate Prediction, Modeling and Scenarios</li> <li>▪ GEMCC 614 Climate Services</li> <li>▪ GEMCC 620 Climate Data and Analytics</li> <li>▪ GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction</li> <li>▪ GEMCC 630 Land Use and the Carbon Cycle</li> </ul> </li> </ul> </li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>▪ GEMCC 620 Climate Data and Analytics</li> <li>▪ GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction</li> <li>▪ GEMCC 630 Land Use and the Carbon Cycle</li> <li>▪ GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation</li> <li>▪ GEMCC 644 Climate Resilient Canadians and Health Systems</li> <li>▪ GEMCC 650/ENBUS 652 Business and Climate Change</li> <li>▪ GEMCC 652/PLAN 627 Climate Change and Community Planning</li> <li>▪ GEMCC 653/FCIT 606 Sustainability Transitions in Cities</li> <li>▪ GEMCC 660 Carbon Accounting and Management</li> <li>▪ <del>GEMCC 690 Climate Change Projects</del></li> </ul> <ul style="list-style-type: none"> <li>• 2 open electives chosen from the climate change designated electives list, partnering programs within the Faculty of Environment (that are willing to allow the student to enroll in a course), and graduate programs offered by other Faculties (that are willing to allow the student to enroll in a course).</li> <li>• Failure to maintain a program average of 75% or better results in an automatic review of the student's status in the program. The review committee will consist of the Program Director and the Department Chair. The review committee may require that the student withdraw from the program.</li> </ul> <p><b>Coursework option: Milestone requirements</b></p> <p><b>Graduate Studies Internship</b></p> <ul style="list-style-type: none"> <li>• All internship students are required to spend the equivalent of one academic term as an intern working on climate change in the public or private sector, at a research institute, or for a non-governmental organization. It is the student's primary responsibility to identify potential organizations with which to undertake their internship, although some employers recruit for positions through the program. The work-term will normally take place in the third term of the program. The internship must be</li> </ul>	<ul style="list-style-type: none"> <li>▪ GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation</li> <li>▪ GEMCC 644 Climate Resilient Canadians and Health Systems</li> <li>▪ GEMCC 650/ENBUS 652 Business and Climate Change</li> <li>▪ GEMCC 652/PLAN 627 Climate Change and Community Planning</li> <li>▪ GEMCC 653/FCIT 606 Sustainability Transitions in Cities</li> <li>▪ GEMCC 660 Carbon Accounting and Management</li> <li>▪ <u>GEMCC 699 / GEOG 699 Graduate Capstone Project</u></li> </ul> <ul style="list-style-type: none"> <li>• 2 open electives chosen from the climate change designated electives list, partnering programs within the Faculty of Environment (<u>subject to meeting pre-requisites and available capacity</u>), and graduate programs offered by other Faculties (<u>subject to meeting pre-requisites and available capacity</u>).</li> <li>• Failure to maintain a program average of 75% or better results in an automatic review of the student's status in the program. The review committee will consist of the Program Director and the Department Chair. The review committee may require that the student withdraw from the program.</li> </ul> <p><b>Coursework option: Milestone requirements</b></p> <p><b>Graduate Studies Internship</b></p> <ul style="list-style-type: none"> <li>• All internship students are required to spend the equivalent of one academic term (<u>14-16 weeks</u>) as an intern working on climate change in the public or private sector, at a research institute, or for a non-governmental organization. It is the student's primary responsibility to identify potential organizations with which to undertake their internship, although some employers recruit for positions through the program. The work-term will normally take place in the third term of the program. The internship must be approved as being a suitable practical learning experience having sufficient climate change focus to be eligible. Students will be required to submit a short proposal outlining how the work of the organization and the internship position relates to the climate change program curriculum, the</li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>approved as being a suitable practical learning experience having sufficient climate change focus to be eligible. Students will be required to submit a short proposal outlining how the work of the organization and the internship position relates to the climate change program curriculum, the student's professional interests, and the professional experience sought through the internship. A final written report arising out of the internship experience will be required and will be evaluated.</p>	<p>student's professional interests, and the professional experience sought through the internship. A final written report arising out of the internship experience will be required and will be evaluated.</p>

**How will students currently registered in the program be impacted by these changes?**

*Students who are currently in the internship option can remain in the internship option, or they can switch to the coursework only option by completing a program/plan change form.*

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 10/10/25

**Department/School approval date** (mm/dd/yy): 10/29/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/31/25

**Faculty Council approval date** (mm/dd/yy): 11/13/25

Prior to form submission, review the [instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Environment

**Program:** Graduate Diploma (GDip) in Climate Change (Type 2)

**Program contact name(s):** Wesley Van Wychen, Teresa Wilson

**Form completed by:** Teresa Wilson

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*To add a new climate change elective option to the list of approved options, and to remove options that are Special Topics courses or have never been offered.*

**Is this a [major modification](#) to the program?** No

**Rationale for change(s):**

*As new courses are developed, new climate change elective options are added to the list of approved options. Special Topics courses are being removed because the courses topics are not regular course offerings and are normally only offered only once.*

*Although ARCH 672 was to be a regular course offering, it no longer appears in the GSAC, and it appears to have never been scheduled.*

**Proposed effective date:** Term: Spring Year: 2026

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/HkmiJI8eR?bc>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>• Students must complete the course and milestone requirements listed below.</li> <li>• Students must have completed all GDip in Climate Change requirements, including the courses and milestones, by the time of degree completion from their regular master’s or doctoral program.</li> </ul> <p><b>Graduate Diploma: Course requirements</b></p> <ul style="list-style-type: none"> <li>• In order to obtain the GDip in Climate Change, students must successfully complete 2</li> </ul>	<p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>• Students must complete the course and milestone requirements listed below.</li> <li>• Students must have completed all GDip in Climate Change requirements, including the courses and milestones, by the time of degree completion from their regular master’s or doctoral program.</li> </ul> <p><b>Graduate Diploma: Course requirements</b></p> <ul style="list-style-type: none"> <li>• In order to obtain the GDip in Climate Change, students must successfully complete 2</li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>graduate level courses (0.50 unit weight) in addition to the degree requirements of their home master's or doctoral program. There can be no double counting of courses for different degrees/diplomas.</p> <ul style="list-style-type: none"> <li>• Students must complete GEMCC 605 Climate Change and Society and 1 of the following climate change courses (or an alternate course that fits with the goals of the GDip, as approved by the Program Director): <ul style="list-style-type: none"> <li>◦ <del>ARCH 672 Energy Effective Design</del></li> <li>◦ ARCH 673 The Science of the Building Envelope</li> <li>◦ ECE 632 Photovoltaic Energy Conversion</li> <li>◦ ECE 660 Operation and Control of Future Integrated Energy Systems</li> <li>◦ ENBUS 652 Business and Climate Change</li> <li>◦ GEMCC 610 Climate Prediction, Modeling and Scenarios</li> <li>◦ GEMCC 620 Climate Data and Analytics</li> <li>◦ GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction</li> <li>◦ GEMCC 630 Land Use and the Carbon Cycle</li> <li>◦ GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation</li> <li>◦ GEMCC 644 Climate Resilient Canadians and Health Systems</li> <li>◦ GEMCC 652 Climate Change and Community Planning</li> <li>◦ GEMCC 660 Carbon Accounting and Management</li> <li>◦ <del>GGOV 628 Governing a World in Climate Crisis</del></li> <li>◦ HIST 624 Environmental &amp; Climate History, Premodern</li> <li>◦ HIST 660 Transnational and Global History: Old Problems and New Directions</li> <li>◦ HLTH 604 Public Health and the Environment</li> <li>◦ <del>STAT 946 Topics in Probability and Statistics: A Quantitative Approach to Sustainable Finance</del></li> </ul> </li> <li>• Note: GEMCC 605 should normally be completed prior to taking the climate change elective course.</li> </ul>	<p>graduate level courses (0.50 unit weight) in addition to the degree requirements of their home master's or doctoral program. There can be no double counting of courses for different degrees/diplomas.</p> <ul style="list-style-type: none"> <li>• Students must complete GEMCC 605 Climate Change and Society and 1 of the following climate change courses (or an alternate course that fits with the goals of the GDip, as approved by the Program Director): <ul style="list-style-type: none"> <li>◦ ARCH 673 The Science of the Building Envelope</li> <li>◦ ECE 632 Photovoltaic Energy Conversion</li> <li>◦ ECE 660 Operation and Control of Future Integrated Energy Systems</li> <li>◦ ENBUS 652 Business and Climate Change</li> <li>◦ GEMCC 610 Climate Prediction, Modeling and Scenarios</li> <li>◦ <u>GEMCC 614 Climate Services</u></li> <li>◦ GEMCC 620 Climate Data and Analytics</li> <li>◦ GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction</li> <li>◦ GEMCC 630 Land Use and the Carbon Cycle</li> <li>◦ GEMCC 640 Climate Change Governance: From Global Treaties to Local Innovation</li> <li>◦ GEMCC 644 Climate Resilient Canadians and Health Systems</li> <li>◦ GEMCC 652 Climate Change and Community Planning</li> <li>◦ GEMCC 660 Carbon Accounting and Management</li> <li>◦ HIST 624 Environmental &amp; Climate History, Premodern</li> <li>◦ HIST 660 Transnational and Global History: Old Problems and New Directions</li> <li>◦ HLTH 604 Public Health and the Environment</li> </ul> </li> <li>• Note: GEMCC 605 should normally be completed prior to taking the climate change elective course.</li> </ul>

**How will students currently registered in the program be impacted by these changes?**

*Students currently in the program will have a new course option. Any current students who took the courses being removed from the list will still be eligible to use them towards the diploma.*

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 08/20/25

**Department/School approval date** (mm/dd/yy): 10/29/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/31/25

**Faculty Council approval date** (mm/dd/yy): 11/13/25

Prior to form submission, review the [instructions](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Environment

**Effective date:** Term: Spring Year: 2026

### Milestone

Note: milestone changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New:** Choose an item.
- Inactivate:** Choose an item.
- Revise:** from Choose an item. to Choose an item.

### Course

Note: some course changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New:** Complete all course elements below
- Inactivate:** Complete the following course elements  
Course subject code, Course number, Course title
- Revise:** Complete all course elements below to reflect the proposed change(s) and identify the course elements being revised (*e.g. Course description, Course title*):

**Course elements** (complete as indicated above. Review the [glossary of terms](#) for details on course elements)

Course subject code: SUSM

Course number: 665

Course title (max. 100 characters including spaces): Life Cycle Assessment

Course short title (max. 30 characters including spaces): Life Cycle Assessment

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Not required

Course description: This course builds students' technical competencies in life cycle assessment (LCA) and in critical analysis of products' environmental impacts through an understanding of life cycle management. Course content covers the International Organization for Standardization (ISO) life-cycle assessment framework, how to conduct technical LCA (including applying quantitative approaches using LCA software and databases, as available and appropriate), challenges of application of LCA to a range of product systems, limitations of LCA, and product life cycle management concepts for business and policy decisions. Students will use the knowledge gained to conduct their own technical LCA.

Course component(s): Lecture (LEC) Choose an item. Choose an item. Choose an item.

Primary course component: Lecture (LEC)

Requisites (identify antirequisites, corequisites, or prerequisites if applicable to the course): No requisites

Special topics course: Yes  No

Special topics course total completions allowed (max. 30):

Can students enrol in multiple sections of the same special topics course in the same term? Yes  No

Cross-listed course: Yes  No

Note: cross-listed courses must share all course elements except the subject code(s), course number(s), and requisites, and require a separate Graduate Studies Course/Milestone form submission for each course.

**Rationale for request:** In response to emerging demand within the Department of Chemical Engineering for a course on life cycle assessment, we propose SUSM 665 as a new course. This course was offered as SUSM 675 Reading Course: Topic 57 Intro to Life Cycle Assessment and has increased in demand which is why we are creating a separate course.

**Form completed by:** Jason Thistlethwaite

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 10/08/25

**Department/School approval date** (mm/dd/yy): 10/28/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/31/25

**Faculty Council approval date** (mm/dd/yy): 11/13/25

From: Brian Ingalls, Associate Dean, Mathematics Graduate Studies

1. Calendar changes Pure Mathematics  
**Motion A:** Program revision removing admit terms for the following programs:  
Doctor of Philosophy (PhD) in Pure Mathematics  
Doctor of Philosophy (PhD) in Pure Mathematics - Quantum Information  
Master of Mathematics (MMath) in Pure Mathematics  
Master of Mathematics (MMath) in Pure Mathematics - Quantum Information
2. Calendar changes Combinatorics and Optimization  
**Motion B:** Program revision adding a requirement for students to maintain a  
  
minimum average of 75% for the following programs  
Doctor of Philosophy (PhD) in Combinatorics and Optimization  
Doctor of Philosophy (PhD) in Combinatorics and Optimization – Internship  
Doctor of Philosophy (PhD) in Combinatorics and Optimization - Quantum  
Information  
Doctor of Philosophy (PhD) in Combinatorics and Optimization - Quantum  
Information - Internship
3. Calendar changes Master of Mathematics for Teachers  
**Motion C1:** Inactivate current course MATH 650 Mathematical Modeling with  
Differential Equations  
**Motion C2:** Create new course MATH 655 Differential Equations - Techniques and  
Applications
4. Calendar changes Applied Mathematics  
**Motion D:** Program revision updating the degree requirements to identify the  
maximum number of reading courses that students are permitted to  
complete for the following courses:  
Doctor of Philosophy (PhD) in Applied Mathematics  
Doctor of Philosophy (PhD) in Applied Mathematics - Aeronautics  
Doctor of Philosophy (PhD) in Applied Mathematics - Quantum Information  
Doctor of Philosophy (PhD) in Applied Mathematics - Water  
Master of Mathematics (MMath) in Applied Mathematics  
Master of Mathematics (MMath) in Applied Mathematics - Aeronautics  
Master of Mathematics (MMath) in Applied Mathematics - Co-operative Program

Master of Mathematics (MMath) in Applied Mathematics - Quantum Information  
Master of Mathematics (MMath) in Applied Mathematics - Water

5. Calendar changes Computer Science

**Motion E:** Program revision updating the degree requirements to reflect new co-op requirements for the Master of Mathematics (MMath) in Computer Science - Co-operative Program

## **2. Calendar changes Pure Mathematics**

- a) Program revision removing admit terms for the following programs:
1. Doctor of Philosophy (PhD) in Pure Mathematics
  2. Doctor of Philosophy (PhD) in Pure Mathematics - Quantum Information
  3. Master of Mathematics (MMath) in Pure Mathematics
  4. Master of Mathematics (MMath) in Pure Mathematics - Quantum Information

Prior to form submission, review the [instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Mathematics

**Programs:** 1) Doctor of Philosophy (PhD) in Pure Mathematics  
 2) Doctor of Philosophy (PhD) in Pure Mathematics - Quantum Information  
 3) Master of Mathematics (MMath) in Pure Mathematics  
 4) Master of Mathematics (MMath) in Pure Mathematics - Quantum Information

**Program contact name(s):** Ben Webster

**Form completed by:**

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*Removing admit terms.*

Is this a [major modification](#) to the program? No

**Rationale for change(s):**

*This change will bring the calendar listing in line with our current practice, and avoid applications in terms when in practice we never admit students. Fall will be the only admit term listed in the Graduate Calendar and Slate for all our graduate programs (MMath, PhD, MMath-QI and PhD-QI). On rare occasions, winter or spring term applicants will be considered, and we will work with GSPA on admitting these students.*

**Proposed effective date:** Term: Spring Year: 2026

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/rygWyAAo2>

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/rkZgZk0Ajh>

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/BJJeZJ0Rs3>

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/B1Jby00sn>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Doctor of Philosophy (PhD) in Pure Mathematics</b>  <b>Doctor of Philosophy (PhD) in Pure Mathematics - Quantum Information</b></p> <p><b>Admit term(s)</b></p> <ul style="list-style-type: none"> <li>• Fall</li> <li>• <del>Winter</del></li> </ul>	<p><b>Doctor of Philosophy (PhD) in Pure Mathematics</b>  <b>Doctor of Philosophy (PhD) in Pure Mathematics - Quantum Information</b></p> <p><b>Admit term(s)</b></p> <ul style="list-style-type: none"> <li>• Fall</li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<ul style="list-style-type: none"> <li>• Spring</li> </ul> <p><b>Master of Mathematics (MMath) in Pure Mathematics</b>  <b>Master of Mathematics (MMath) in Pure Mathematics - Quantum Information</b></p> <p><b>Admit term(s)</b></p> <ul style="list-style-type: none"> <li>• Fall</li> <li>• <del>Winter</del></li> </ul>	<p><b>Master of Mathematics (MMath) in Pure Mathematics</b>  <b>Master of Mathematics (MMath) in Pure Mathematics - Quantum Information</b></p> <p><b>Admit term(s)</b></p> <ul style="list-style-type: none"> <li>• Fall</li> </ul>

**How will students currently registered in the program be impacted by these changes?**

*There will be no impact to currently registered students.*

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 09/12/25

**Department/School approval date** (mm/dd/yy): 10/01/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/27/25

**Faculty Council approval date** (mm/dd/yy): 11/25/25

**Senate Graduate & Research Council (SGRC) approval date** (mm/dd/yy):

### **3. Calendar changes Combinatorics and Optimization**

- a) Program revision adding a requirement for students to maintain a minimum average of 75% for the following programs
  - 1. Doctor of Philosophy (PhD) in Combinatorics and Optimization
  - 2. Doctor of Philosophy (PhD) in Combinatorics and Optimization – Internship
  - 3. Doctor of Philosophy (PhD) in Combinatorics and Optimization - Quantum Information
  - 4. Doctor of Philosophy (PhD) in Combinatorics and Optimization - Quantum Information - Internship

Prior to form submission, review the [instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Mathematics

**Programs:**

1. Doctor of Philosophy (PhD) in Combinatorics and Optimization
2. Doctor of Philosophy (PhD) in Combinatorics and Optimization - Internship
3. Doctor of Philosophy (PhD) in Combinatorics and Optimization - Quantum Information
4. Doctor of Philosophy (PhD) in Combinatorics and Optimization - Quantum Information - Internship

**Program contact name(s):** Douglas Stebila, Associate Chair Graduate Studies, Department of Combinatorics & Optimization

**Form completed by:** Douglas Stebila, Associate Chair Graduate Studies, Department of Combinatorics & Optimization

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

Add a requirement for students to maintain a minimum average of 75% in the program.

Is this a [major modification](#) to the program? No

**Rationale for change(s):**

This will ensure an appropriate quality standard for student progression in the program. The C&O MMath programs require students to maintain a minimum average of 75% in the program, so this improves consistency across the degrees.

**Proposed effective date:** Term: Spring Year: 2026

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

1. <https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/B1qgb1AAjh/>
2. <https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/ryqxbk00ih>
3. <https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/B1zgW10Ai2/>
4. <https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/Skbgby0Aih>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>Doctor of Philosophy (PhD) in Combinatorics and Optimization                      Doctor of Philosophy (PhD) in Combinatorics and Optimization - Internship                      Doctor of Philosophy (PhD) in Combinatorics &amp; Optimization - Quantum Information</p>	<p>Doctor of Philosophy (PhD) in Combinatorics and Optimization                      Doctor of Philosophy (PhD) in Combinatorics and Optimization - Internship                      Doctor of Philosophy (PhD) in Combinatorics &amp; Optimization - Quantum Information</p>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Doctor of Philosophy (PhD) in Combinatorics &amp; Optimization - Quantum Information - Internship</b></p> <p><b>Course requirements</b></p> <ul style="list-style-type: none"> <li>At least 6 courses should normally be completed within the first 6 terms.</li> </ul>	<p><b>Doctor of Philosophy (PhD) in Combinatorics &amp; Optimization - Quantum Information - Internship</b></p> <p><b>Course requirements</b></p> <ul style="list-style-type: none"> <li>At least 6 courses should normally be completed within the first 6 terms.</li> <li><u>An overall average of at least 75% must be maintained.</u></li> </ul>

**How will students currently registered in the program be impacted by these changes?**

Students currently registered in the program will be able to follow the requirements in place at the time of their admission.

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 05/23/25

**Department/School approval date** (mm/dd/yy): 10/23/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/27/25

**Faculty Council approval date** (mm/dd/yy): 11/25/25

**Senate Graduate & Research Council (SGRC) approval date** (mm/dd/yy):

#### **4. Calendar changes MMT**

- a) Inactivate current course MATH 650 Mathematical Modeling with Differential Equations
  
- b) Create new course MATH 655 Differential Equations - Techniques and Applications

Prior to form submission, review the [instructions](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Mathematics

**Effective date:** Term: Spring Year: 2026

### Milestone

Note: milestone changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Choose an item.
- Inactivate: Choose an item.
- Revise: from Choose an item. to Choose an item.

### Course

Note: some course changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Complete all course elements below
- Inactivate: Complete the following course elements:  
Course subject code, Course number, Course title
- Revise: Complete all course elements below to reflect the proposed change(s) and identify the course elements being revised (*e.g. Course description, Course title*):

**Course elements** (complete as indicated above. Review the [glossary of terms](#) for details on course elements)

Course subject code: MATH

Course number: 650

Course title (max. 100 characters including spaces): Mathematical Modeling with Differential Equations

Course short title (max. 30 characters including spaces):

Grading basis: Choose an item.

Course credit weight: Choose an item.

Course consent required: Choose an item.

Course description:

Course component(s): Choose an item. Choose an item. Choose an item. Choose an item.

Primary course component: Choose an item.

Requisites (identify antirequisites, corequisites, or prerequisites if applicable to the course):

Special topics course: Yes  No

Special topics course total completions allowed (max. 30):

Can students enrol in multiple sections of the same special topics course in the same term? Yes  No

Cross-listed course: Yes  No

If yes, list the course subject code(s) and number(s) that this course is/will be cross-listed with:

Note: cross-listed courses must share all course elements except the subject code(s), course number(s), and requisites, and require a separate Graduate Studies Course/Milestone form submission for each course.

**Rationale for request:**

MATH 650 is being inactivated and replaced by MATH 655. MATH 650 served the program well for 12 years, but enrolment was low and declining. We believe this is largely because of the demands of the course and a decreasing number of students in the program with a sufficient background in linear algebra and calculus.

**Form completed by:**

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 09/19/25

**Department/School approval date** (mm/dd/yy): 10/20/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/27/2025

**Faculty Council approval date** (mm/dd/yy): 11/25/25

Prior to form submission, review the [instructions](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Mathematics

**Effective date:** Term: Spring Year: 2026

### Milestone

Note: milestone changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Choose an item.
- Inactivate: Choose an item.
- Revise: from Choose an item. to Choose an item.

### Course

Note: some course changes also require the completion/submission of the [Graduate Studies Program Revision Template](#).

- New: Complete all course elements below
- Inactivate: Complete the following course elements:  
Course subject code, Course number, Course title
- Revise: Complete all course elements below to reflect the proposed change(s) and identify the course elements being revised (*e.g. Course description, Course title*):

**Course elements** (complete as indicated above. Review the [glossary of terms](#) for details on course elements)

Course subject code: MATH

Course number: 655

Course title (max. 100 characters including spaces): Differential Equations - Techniques and Applications

Course short title (max. 30 characters including spaces): Differential Equations

Grading basis: Numerical

Course credit weight: 0.50

Course consent required: Not required

Course description: This course is an introduction to ordinary differential equations and mathematical modelling. The topics covered include: first order differential equations, second and higher order linear differential equations with constant and variable coefficients, systems of linear differential equations, approximation and numerical methods. Numerous applications and demonstrations will illustrate how differential equations are used to describe the behaviour of natural and engineered systems.

Course component(s): Lecture (LEC) Choose an item. Choose an item. Choose an item.

Primary course component: Lecture (LEC)

Requisites: MATH 600 and 692 are co-requisites; MATH 650 is an anti-requisite

Special topics course: Yes  No

Special topics course total completions allowed (max. 30):

Can students enrol in multiple sections of the same special topics course in the same term? Yes  No

Cross-listed course: Yes  No

If yes, list the course subject code(s) and number(s) that this course is/will be cross-listed with:

Note: cross-listed courses must share all course elements except the subject code(s), course number(s), and requisites, and require a separate Graduate Studies Course/Milestone form submission for each course.

### Rationale for request:

This course is meant to replace MATH 650 – Mathematical Modelling. It remains important to provide MMT students with an introduction to differential equations. This background supports their own teaching of calculus by providing depth and a broader sense of associated real-world applications. In the MMT, differential equations are currently covered by MATH 650 which MATH 655 is meant to replace. MATH 650 served the program well for 12 years, but enrolment was low and declining. We believe this is largely because of the demands of the course and a decreasing number of students in the program with a sufficient background in linear algebra and calculus.

MATH 655 will be different than MATH 650 in the following ways:

- It will cover fewer topics and will focus more on the techniques and applications.
- Solving systems of linear differential equations normally requires linear algebra methods such as diagonalization. However, many applications can be expressed as a system of two linear differential equations, and these small systems can be solved without resorting to linear algebra. The new course will focus on small systems, and the solution procedure will involve combining the equations into a single equation which can then be solved using the methods covered. Thus, very little linear algebra will be required in the new course.
- An open Access e-textbook and solution manual will be adopted.
- MATH 655 will not have weekly quizzes.
- Sage has just replaced Maple in MATH 600, the first course taken by all MMT students. MATH 650 relied on familiarity with Maple, but MATH 655 will allow Maple, Sage or other similar software. Also, MATH 655 assignment questions will be designed so that they can be done without using software.
- A MATH 655 preparedness quiz on differential and integral calculus, and solving linear systems will be provided to students to allow them to assess where they stand before enrolling in the course. This quiz will also be reviewed during the first week of the term.

**Form completed by:** J.P. Pretti

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 09/19/25

**Department/School approval date** (mm/dd/yy): 10/20/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/27/25

**Faculty Council approval date** (mm/dd/yy): 11/25/25

## **5. Calendar changes Applied Mathematics**

a) Program revision updating the degree requirements to identify the maximum number of reading courses that students are permitted to complete for the following courses:

1. Doctor of Philosophy (PhD) in Applied Mathematics
2. Doctor of Philosophy (PhD) in Applied Mathematics - Aeronautics
3. Doctor of Philosophy (PhD) in Applied Mathematics - Quantum Information
4. Doctor of Philosophy (PhD) in Applied Mathematics - Water
5. Master of Mathematics (MMath) in Applied Mathematics
6. Master of Mathematics (MMath) in Applied Mathematics - Aeronautics
7. Master of Mathematics (MMath) in Applied Mathematics - Co-operative Program
8. Master of Mathematics (MMath) in Applied Mathematics - Quantum Information
9. Master of Mathematics (MMath) in Applied Mathematics - Water

Prior to form submission, review the [content revision instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Mathematics

- Programs:**
- 1) Doctor of Philosophy (PhD) in Applied Mathematics
  - 2) Doctor of Philosophy (PhD) in Applied Mathematics - Aeronautics
  - 3) Doctor of Philosophy (PhD) in Applied Mathematics - Quantum Information
  - 4) Doctor of Philosophy (PhD) in Applied Mathematics - Water
  - 5) Master of Mathematics (MMath) in Applied Mathematics
  - 6) Master of Mathematics (MMath) in Applied Mathematics - Aeronautics
  - 7) Master of Mathematics (MMath) in Applied Mathematics - Co-operative Program
  - 8) Master of Mathematics (MMath) in Applied Mathematics - Quantum Information
  - 9) Master of Mathematics (MMath) in Applied Mathematics - Water

**Program contact name(s):** Florian Girelli, Associate Chair, Graduate Studies, Applied Math

**Form completed by:** Florian Girelli, Associate Chair, Graduate Studies, Applied Math

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*Updating the degree requirements to identify the maximum number of reading courses that students are permitted to complete.*

**Is this a [major modification](#) to the program?** No

**Rationale for change(s):**

*Under the program's recently introduced breadth requirement, there is, in principle, no cap on the number of reading courses that students can take to fulfil their degree requirements. We intend to state explicitly that students can take at most 1 reading course out of 4 (or 2 out of 7 for the MMath Master's Research Paper option) for credit towards their degree requirements, which is current practice.*

**Proposed effective date:** Term: Spring Year: 2026

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs?group=Applied%20Mathematics>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Doctor of Philosophy (PhD) in Applied Mathematics</b>  <b>Doctor of Philosophy (PhD) in Applied Mathematics- Aeronautics</b>  <b>Doctor of Philosophy (PhD) in Applied Mathematics - Quantum Information</b>  <b>Doctor of Philosophy (PhD) in Applied Mathematics – Water</b></p> <p><b>Course requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete 4 one-term (0.50 unit) graduate courses after the Master's degree, at least one of which must be an AMATH course, or 8 one-term (0.50 unit) graduate courses after the Bachelor's degree, at least three of which must be AMATH courses. Candidates for the PhD degree must maintain a grade point average of at least 70% in their coursework.</li> </ul> <p><b>Master of Mathematics (MMath) in Applied Mathematics</b>  <b>Master of Mathematics (MMath) in Applied Mathematics – Aeronautics</b>  <b>Master of Mathematics (MMath) in Applied Mathematics – Co-operative Program</b>  <b>Master of Mathematics (MMath) in Applied Mathematics – Quantum Information</b>  <b>Master of Mathematics (MMath) in Applied Mathematics – Water</b></p> <p><b>Thesis option: Course requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete 4 one-term (0.50 unit) graduate courses, at least two of which must be AMATH courses. Candidates for the MMath (thesis) degree must maintain a grade point average of at least 70% in their coursework</li> </ul> <p><b>Master's Research Paper option: Course requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete 7 one-term (0.50 unit) graduate courses, at least four of which must be AMATH courses. Candidates for the MMath (Research paper) degree must maintain a</li> </ul>	<p><b>Doctor of Philosophy (PhD) in Applied Mathematics</b>  <b>Doctor of Philosophy (PhD) in Applied Mathematics- Aeronautics</b>  <b>Doctor of Philosophy (PhD) in Applied Mathematics - Quantum Information</b>  <b>Doctor of Philosophy (PhD) in Applied Mathematics - Water</b></p> <p><b>Course requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete 4 one-term (0.50 unit) graduate courses after the Master's degree, at least one of which must be an AMATH course, or 8 one-term (0.50 unit) graduate courses after the Bachelor's degree, at least three of which must be AMATH courses. <u>Students may complete a maximum of 1 reading course.</u> Candidates for the PhD degree must maintain a grade point average of at least 70% in their coursework.</li> </ul> <p><b>Master of Mathematics (MMath) in Applied Mathematics</b>  <b>Master of Mathematics (MMath) in Applied Mathematics – Aeronautics</b>  <b>Master of Mathematics (MMath) in Applied Mathematics – Co-operative Program</b>  <b>Master of Mathematics (MMath) in Applied Mathematics – Quantum Information</b>  <b>Master of Mathematics (MMath) in Applied Mathematics – Water</b></p> <p><b>Thesis option: Course requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete 4 one-term (0.50 unit) graduate courses, at least two of which must be AMATH courses. <u>Students may complete a maximum of 1 reading course.</u> Candidates for the MMath (thesis) degree must maintain a grade point average of at least 70% in their coursework.</li> </ul> <p><b>Master's Research Paper option: Course requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete 7 one-term (0.50 unit) graduate courses, at least four of which must be AMATH courses. <u>Students may complete a</u></li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
grade point average of at least 70% in their coursework.	<u>maximum of 2 reading courses.</u> Candidates for the MMath (Research paper) degree must maintain a grade point average of at least 70% in their coursework.

**How will students currently registered in the program be impacted by these changes?**

*Students currently registered in the program will be able to follow the requirements in place at the time of their admission.*

**Department/School approval date** (mm/dd/yy): 03/31/25

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 05/23/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/27/25

**Faculty approval date** (mm/dd/yy): 11/25/25

**Senate Graduate & Research Council (SGRC) approval date** (mm/dd/yy):

## **6. Calendar changes Computer Science**

a) Program revision updating the degree requirements to reflect new co-op requirements for the Master of Mathematics (MMath) in Computer Science - Co-operative Program

Prior to form submission, review the [instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Mathematics

**Program:** Master of Mathematics (MMath) in Computer Science - Co-operative Program

**Program contact name(s):** Jesse Hoey, Denise Shantz

**Form completed by:**

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGRC Graduate Studies Course/Milestone Form](#).

*Updating the degree requirements to include new co-op requirements.*

**Is this a [major modification](#) to the program?** No

**Rationale for change(s):**

*The degree requirements are being updated to reflect new co-op requirements, including a modification to the number of sequenced and required work terms as well as the timing of the work terms. Note: The co-op sequencing is related to the fee structure. The fee structure has changed to a program-based fee, which was approved by the Board of Governors in February 2025. Graduate co-op fees will align with cost-recovery requirements and will be assessed on the program's first study term and the remaining fee(s) will be assessed during each subsequent work term(s).*

**Proposed effective date:** Term: Spring Year: 2026

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/HJybyC0ih>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete the course and milestone requirements associated with their chosen study option in addition to the Graduate Academic Integrity Module (Graduate AIM).</li> <li>Students are required to complete WIL 601 Career Foundations for Work-Integrated Learning in their first academic term. Students must complete WIL 601 in addition to the program's course requirements.</li> </ul>	<p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete the course and milestone requirements associated with their chosen study option in addition to the Graduate Academic Integrity Module (Graduate AIM).</li> <li>Students are required to complete WIL 601 Career Foundations for Work-Integrated Learning in their first academic term. Students must complete WIL 601 in addition to the program's course requirements.</li> <li><u>Students are required to successfully complete 1 credited <a href="#">standard work term</a>. Students have</u></li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Milestone requirements</b></p> <p><b>Graduate Studies Work Report</b></p> <ul style="list-style-type: none"> <li>Co-op requirements: in Computer Science, a master's program may be undertaken on a co-operative basis enabling a student to combine graduate studies with some work experience. The program involves an initial study period, a work period and a final study period. It is fairly flexible in length, each period comprising one or more terms. The usual pattern of study and work consists of two academic terms in which the courses are completed, a two-term work placement, and two or three terms in which the thesis is completed. Students may apply for the co-op option during their second or third term in the Master's program.</li> <li>The work placement must be related to the student's research topic, or relevant to their coursework, and requires the approval of the Director of Graduate Studies and the student's research supervisor.</li> <li>The student will be required to do a two-term work placement at a suitable industrial location, to begin as soon as possible after the coursework or 50% of the degree requirements have been completed. The student will also be expected to return to campus after the work placement in order to complete the final thesis. The student will need to supply a work term report when they return to campus.</li> </ul>	<p><u>the option to complete a second work term with approvals from the School.</u></p> <ul style="list-style-type: none"> <li><u>The work term(s) typically takes place in term 3 (or terms 3 and 4). Students should apply to jobs related to their program of study.</u></li> <li><u>The program must start and end on an academic term.</u></li> </ul> <p><b>Milestone requirements</b></p> <p><b>Graduate Studies Work Report</b></p> <ul style="list-style-type: none"> <li><u>Students must complete one work report, submitted to the School for review and credit, within 30 days of starting the next academic term.</u></li> <li><u>Students are responsible for following the <a href="#">roles and responsibilities of Co-operative and Experiential Education (CEE)</a>.</u></li> </ul>

**How will students currently registered in the program be impacted by these changes?**

*Current students will not be impacted by these changes and will follow the requirements that were in place when they started their program. Students entering the program in Fall 2025 will follow the new requirements.*

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy):

**Department/School approval date** (mm/dd/yy): 10/08/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/27/25

**Faculty Council approval date** (mm/dd/yy): 11/25/25

**Senate Graduate & Research Council (SGRC) approval date** (mm/dd/yy):



January 7, 2026

TO: Ashley Day, Associate University Secretary  
Tony Ly, Governance Officer

FROM: Heidi Mussar, Associate Director, Graduate Financial Aid & Awards

RE: Agenda items for Senate Graduate Council – January 2026

**Awards for Consent**

**a) BMO Founder Award - trust**

An award, valued at \$10,000, will be provided annually to a full-time, woman-identifying undergraduate or graduate student engaged in Velocity. Selection is based on the impact the award will have on the candidate's ability to pursue their educational and entrepreneurial goals. Candidates are required to complete the Velocity Cornerstone Program to be eligible. Interested students must complete the application found on the Velocity website by the advertised deadline. This fund is made possible by a donation from BMO to support women-identifying founders and entrepreneurs.

The first selection will be in Spring 2026 and the last in Spring 2030.

**b) Mrs. Samia Barakat and Dr. Soliman Abdelfattah Soliman Graduate Scholarship in Engineering – trust**

Three scholarships valued at \$10,000 each will be provided annually to international graduate students who are or will be registered full time in a research-based master's or doctoral program in the Faculty of Engineering. Selection will be based on academic excellence (minimum 80% cumulative average or equivalent). Preference will be given to students who graduated from an accredited University in Egypt. If a suitable candidate cannot be found, then the scholarship will be awarded to any international student in a research-based graduate program in Engineering. The Faculty of Engineering will identify candidates based on their application for admission. This fund is made possible by a donation from the Soliman family, in honour of their parents, Mrs. Samia Barakat and Dr. Soliman Abdelfattah Soliman's 50th anniversary of making Canada their home.

The first selection will be made in Fall 2026 and the last in Fall 2030.

**c) Robert Bowerman Engineering Graduate Scholarship – endowment**

A scholarship valued at \$1,500 will be awarded annually to a full-time graduate student enrolled in any year of a MAsc or PhD program in the Faculty of Engineering. Selection to be based on academic excellence and demonstrated interest in using optimization for engineering problem-solving as determined by their award application. Interested students should submit an application to the Graduate Studies Office in the Faculty of Engineering. This fund is made possible by a donation from proud alumni, Robert Bowerman (MAsc '91, PhD '97) and Christine Robson (BA '95, BMATH '01), who are excited to support the next generation of engineering researchers.

**d) Bill Swirsky Graduate Scholarship in Innovation – endowment**

A scholarship, valued at a minimum of \$1,500, will be provided annually to a MAcc student registered full-time in the School of Accounting and Finance in the Faculty of Arts. Selection will

be based on academic excellence and demonstrated interest in emerging technologies and innovation. Students interested in being considered must submit an expression of interest to the graduate office in the School of Accounting and Finance. This fund was established by Professor Efrim Boritz and is made possible by donations from faculty, friends and colleagues in memory of Bill Swirsky.

#### **Awards for Information**

##### **e) Environment Graduate Student Award – operating**

Previously restricted to certain programs, the Faculty is revising the terms of the award to reflect that it is now open to students registered in any graduate program in the Faculty of Environment. The updated award description is as follows:

Awards valued at up to \$10,000 will be available to eligible graduate students registered full time in any master's or doctoral program in the Faculty of Environment. Students in good academic standing will be nominated for the award by their Graduate Officer or Program Director with final approval made by the Associate Dean, Graduate Studies in the Faculty of Environment.

##### **f) GrandBridge Energy Graduate Scholarship – trust**

Originally established in 2023 as the GrandBridge Energy Green Energy Graduate Scholarship, through an annual gift, the gift is being renewed with some revisions including new award name, value and some revised criteria. The updated description is as follows:

A scholarship, valued at \$4,000, will be awarded annually to a full-time graduate student enrolled in the Sustainable Energy specialization of the Master of Engineering (MEng) program in the Department of Mechanical and Mechatronics Engineering in the Faculty of Engineering. Selection will be based on academic excellence combined with demonstrated interest in green energy, environmental sustainability, and innovative energy solutions for the future. Interested students should submit an application found on the Department of Mechanical and Mechatronics Engineering website by May 1. This fund is made possible by a donation from GrandBridge Energy to support specialized technical training and to advance sustainable solutions for the energy sector.

# Accessible Education Project – Senate Graduate Council

## January 21, 2026

### Accessible Education Project Update

Over the past two years, teams of faculty and staff at the University of Waterloo have worked collaboratively to advance a comprehensive, cross-Faculty, institution-wide approach to accessible education. The [Accessible Education](#) project in the [Teaching Innovation Incubator](#) had been tasked with addressing 26 of the 185 AODA PSE recommendations. Three project teams were created to advance this work in three distinct areas:

- Policy & Guidelines
- Instructional Programs & Practices
- Learning Tools & Materials

This project's overarching goal has been to foster a teaching and learning environment in which innovative, inclusive, and accessible teaching practices are valued, supported, and continually improved.

Major accomplishments of the Accessible Education project include:

- Student Academic Disability Accommodation Policy (wrapping up early 2026; **focus of discussion today**)
- Waterloo Practices for Accessible Teaching and Helpful/Holistic Strategies (WatPATHS) resource (completed)
- [Accessible Teaching](#) website (integrating WatPATHS resource) (completed)
- Summarized action items designated for ASUs to address (completed; shared with respective ASUs, and being built into long-term recommendations for this work)
- Working definitions and processes to guide programs and instructors through identifying Essential Requirements for a given academic program (process being refined for pilot purposes)
- Development and hosting of Accessible Education Day (2024 & 2025)
- Integrated Accessibility Retreat – one-day retreat for instructors to work on accessibility in their courses (2024 & 2025)

Concurrently, an open-access [Postsecondary Course Accessibility Guide](#) was developed by Christine Zaza (Centre for Extended Learning). The Guide includes 39 accessibility practices within six sections (e.g., course outline; course organization; course materials) and can be used by instructors to review and improve accessibility in their teaching. Research was conducted on which course accessibility practices students, as indicated in the guide, were considered most important for their learning (n = 1758). Undergraduate (81%) and graduate students (19%) from all six Faculties participated. Of the 39 accessibility practices, all had a mean rating of at least *somewhat important*, with 90% rated as either *very important* or *extremely important* by at least half of participants. Students found **well-organized, user-friendly courses, having information in advance, and good communication practices and options** as the most important. These data are the foundation for the [Accessible Teaching](#) website and its recommendations to instructors to make feasible and effective change in their teaching practices.

### Next Steps

The Accessible Education project will officially wrap up early this year. A final report with specific recommendations and resource needs for ongoing support, including the establishment of advisory governance structures, will be prepared and shared.

Date 2026/01/14

Show Empty Fields

## Meeting Information

Agenda Page TitleSGC - Regular Agenda - Faculty of Arts - January 21, 2026

Career Level  
Graduate,

Faculty/UnitArts

Date2026-01-21

### Summary

#### Program Proposals:

##### 1) Political Science:

###### 1.1) PhD in Political Science:

- a) Updating the list of research fields.
- b) Expanding the number of elective courses.
- c) Adding flexibility to the comprehensive exam reading lists.

###### 1.2) PhD in Political Science - Co-operative Program:

- a) Updating the list of research fields.
- b) Expanding the number of elective courses.
- c) Adding flexibility to the comprehensive exam reading lists.

###### 1.3) MA in Political Science

Removing the thesis study option.

###### 1.4) MA in Political Science - Co-operative Program

Removing the thesis study option.

##### 2) Psychology:

###### 2.1) PhD in Psychology:

Updating the degree requirements to include a new Graduate Specialization in “Applied Data Science”.

## Course Proposals

Courses: Retire No proposals have been added.

Courses: New No proposals have been added.

Courses: Changes No proposals have been added.

## Programs & Plans Proposals

Programs & Plans: Retire No proposals have been added.

**Programs & Plans: Major Modifications**

Code	Title	Type	Workflow Step
<a href="#">PhD in Political Science</a>	Doctor of Philosophy (PhD) in Political Science	Programs	SGC, Senate Graduate Council (SGC)
<a href="#">PhD in Political Science-Co-op</a>	Doctor of Philosophy (PhD) in Political Science - Co-operative Program	Programs	SGC, Senate Graduate Council (SGC)
<a href="#">MA in Political Science</a>	Master of Arts (MA) in Political Science	Programs	SGC, Senate Graduate Council (SGC)
<a href="#">MA in Political Science-Co-op</a>	Master of Arts (MA) in Political Science - Co-operative Program (direct entry)	Programs	SGC, Senate Graduate Council (SGC)
<a href="#">PhD in Psychology</a>	Doctor of Philosophy (PhD) in Psychology	Programs	SGC, Senate Graduate Council (SGC)

**Programs & Plans: Minor Modifications** No proposals have been added.

## Regulations Proposals

**Regulations: Retire** No proposals have been added.

**Regulations: New** No proposals have been added.

**Regulations: Changes** No proposals have been added.

# PhD in Political Science - Doctor of Philosophy (PhD) in Political Science

[Top](#)

## Effective Date and Career

**Career**  
Graduate,

Proposed
<b>Effective Term and Year</b> Spring 2026
Existing
<b>Effective Term and Year</b> Fall 2025

## Proposal Details

**Proposal Type**  
Change,

**Academic Unit Approval**  
2025-09-26

**Quality Assurance Designation**  
Major Modification Qad

**Major Modification Categories**

Add/re-name a graduate research field, graduate specialization, honours, option, specialization, undergraduate diploma,

minor Closure of a graduate research field, graduate specialization, honours, option, specialization, undergraduate diploma, minor

**Is there an impact to existing students?**

Yes,

**Impact on Existing Students**

Changes will apply to new cohorts only (Fall 2026 and beyond).

**Is the credential name changing?**

No,

**Graduate Co-operative Requirements**

Not Applicable,

**Change to Learning Outcomes**

No,

**Rationale and Background for Change(s)**

1) Updating the list of research fields: Updating the list of research fields could enhance recruitment and will better align with student interests in the field, including interdisciplinarity. The revised fields are consistent with the discipline and are better aligned with faculty expertise. The program's learning outcomes remain the same.

The program currently includes the following graduate research fields:

- Canadian Politics
- International Relations
- Political Economy

The revised graduate research fields are as follows:

- Canadian Politics
- Comparative Politics
- Gender and Politics
- Political Economy
- Political Theory
- Public Policy

2) Expanding the number of elective courses: Expanding the number of elective courses will enhance equity amongst PSCI grad instructors and provide greater choice for students.

The current course requirements are as follows:

- Students must complete 6 (0.50 unit weight) graduate-level courses in PSCI:
- PSCI 600 Political Science Methods
- PSCI 601 Research and Writing in Political Science
- 1 core course in one of the program's three graduate research fields
- 1 course in the student's second area (which may be another of the three graduate research fields or a custom concentration)
- 2 electives in PSCI

The revised course requirements are as follows:

- Students must complete 6 (0.50 unit weight) graduate-level courses in PSCI:
- PSCI 600 Political Science Methods
- PSCI 601 Research and Writing in Political Science
- 4 elective courses in PSCI

3) Adding flexibility to the comprehensive exam reading lists: Flexibility in the composition of comprehensive exam committees will support program adaptability and allow for greater connection to expertise in Arts. Changes in the reading list requirements will better reflect Ph D student research interests.

## General Program/Plan Information

**Faculty**

Faculty of Arts

**Academic Unit**

Department of Political Science

**Graduate Field of Study**

Political Science

**Faculty**

Faculty of Arts

**Program/Plan Name**

Doctor of Philosophy (Ph D) in Political Science

**Graduate Credential Type**

Ph D

**Accelerated Program**

Not applicable,

**Admit Term(s)**

Fall,

**Delivery Mode**

On-campus,

### Proposed

**Graduate Research Fields**

- Canadian Politics
- Comparative Politics
- Gender and Politics
- Political Economy
- Political Theory
- Public Policy

### Existing

**Graduate Research Fields**

- Canadian Politics
- International Relations
- Political Economy

## Admissions

### Admission Requirements: Minimum Requirements

- Students must hold a Master's degree with a minimum 80% average or equivalent in political science, or a related discipline.
- Experienced professionals in the private or public sectors will be considered for admission, but additional course work may be required.
- [English language proficiency \(ELP\)](#) (if applicable)

### Admission Requirements: Application materials

- Résumé
- Supplementary information form
- Transcript(s)
- Writing sample

### Admission Requirements: References

- Number of references: 3
- Type of references: normally from academic sources

## Requirements Information

### Graduate Degree Requirements

- Students must complete the course and milestone requirements listed below in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).

- Note: In addition to the Regular stream of the program, students have the option of taking the Teaching stream (featuring additional professional development modules, including a mentored teaching experience) and the Experiential stream (which may include entry into the Co-op program - described separately - or another placement and other experiential training, including additional professional development modules).

## Graduate Course Requirements

No Rules

### Proposed

#### Graduate Course Requirements

##### Regular stream / Teaching stream / Experiential stream

- Students must complete 6 (0.50 unit weight) graduate-level courses in PSCI:
  - PSCI 600 Political Science Methods
  - PSCI 601 Research and Writing in Political Science
  - 4 elective courses in PSCI
- Students entering the Ph D program from the University of Waterloo's Master of Arts (MA) in Political Science program may have already completed some of the required courses. To meet formal course requirements for the Ph D degree, these students must complete 6 new (0.50 unit weight) graduate-level courses.
- Reading courses may supplement regular offerings in the program, although it is understood that they will be approved at the discretion of the Department. Students will normally be permitted to take 1 reading course as part of their degree.
- Students are required to maintain an overall average of 80% in their graduate-level coursework.

### Existing

#### Graduate Course Requirements

##### Regular stream / Teaching stream / Experiential stream

- Students must complete 6 (0.50 unit weight) graduate-level courses in PSCI:
  - PSCI 600 Political Science Methods
  - PSCI 601 Research and Writing in Political Science
  - 1 core course in one of the program's three graduate research fields
  - 1 course in the student's second area (which may be another of the three graduate research fields or a custom concentration)
  - 2 electives in PSCI
- If selecting the Canadian Politics research field, students must complete at least 1 of the following core courses:
  - PSCI 661 Canadian Political Institutions
  - PSCI 662 Canadian Political Process
- If selecting the International Relations research field, students must complete at least 1 of the following core courses:
  - PSCI 610 International Relations Theory
  - PSCI 611 Current Issues in International Relations
- If selecting the Political Economy research field, students must complete at least 1 of the following core courses:
  - PSCI 690 Theories of Political Economy
  - PSCI 691 Developments in Political Economy or PSCI 688 Governance of Global Economy
- Students entering the Ph D program from the University of Waterloo's Master of Arts (MA) in Political Science program may have already completed some of the required core courses for their chosen research fields. To meet formal course requirements for the Ph D degree, these students must complete 6 new (0.50 unit weight) graduate-level courses that satisfy their comprehensive examination preparation.
- Reading courses may supplement regular offerings in the program, although it is understood that they will be approved at the discretion of the Department. Students will normally be permitted to take 1 reading course as part of their degree.
- Students are required to maintain an overall average of 80% in their graduate-level coursework.

### Proposed

#### Milestone Requirements

##### Regular stream:

### **Ph D Professional Development Seminar**

- Students must complete 3 professional development workshops to satisfy the requirements of the Ph D Professional Development Seminar. Workshops must be approved by the Associate Chair, Graduate Studies, but may include the following:
  - Practice job talk / job interview
  - Workshops or courses providing additional training in social science methods
  - CTE workshop aimed at graduate students
  - MITACS Edge workshop/course
  - Writing Centre workshop
  - Career Centre workshop
  - Counselling Services workshop on mindfulness, cognitive therapy, or practical skills to reduce anxiety
  - Completion of any course or workshop relevant to professional development offered by a campus partner

### **Ph D Comprehensive Examination**

- Students are required to meet the University-level Ph D [Comprehensive Examination](#) minimum requirements, with certain noted exceptions that are specific to the Faculty of Arts Comprehensive Examination minimum requirements:
  - Comprehensive examination purpose: Consistent with University-level minimum requirements.
  - Timing: Consistent with University-level minimum requirements.
  - Committee: Consistent with University-level minimum requirements with the exception that in the Faculty of Arts, the Graduate Chair can approve the committee for comprehensive examinations.
  - Who Chairs an examination: Consistent with University-level minimum requirements.
  - Format / Content: Consistent with University-level minimum requirements.
  - Academic integrity: Consistent with University-level minimum requirements.
- In addition to the University-level and Faculty-level Ph D Comprehensive Examination minimum requirements, students in the Ph D in Political Science program are also required to meet the following requirements:
  - At the start of Spring term in Year 1, students and their supervisors inform the Political Science Graduate Officer of their field committees and reading lists.
  - At the end of their coursework, in Fall of Year 2, students are required to sit two exams (typically September and November).
  - The first exam will be from one of the graduate research fields of the program the student has selected to study in. It will be comprised of a written exam, followed by an oral exam.
  - The second exam, written in a second research field, may follow the same format as the first exam; alternatively, the student may elect to submit a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in their second research field.
  - If the second area of study is a custom concentration, the comprehensive exam will consist of a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.

### **Ph D Thesis Proposal**

- Students will write a thesis proposal situating their research question(s) in the extant literature, outlining their approach, theory, scope, and research methodology, and explaining the original nature of their contribution, along with a timeline and proposed chapter outline. The proposal will be subject to an oral defence, normally by the end of the sixth term, before a committee including the student's supervisor and two other faculty members.

### **Ph D Thesis**

- Students will have choice in the format of their thesis. Students may choose a traditional dissertation (ranging from 200 to 350 pages in length), or a 'publication model' consisting of at least three sole-authored published (or in press) works, at least one of which is in a traditional, peer-reviewed outlet (other publications might include research reports for think tanks, etc.), and including an original introduction, conclusion and any necessary bridging chapters to reflect a coherent project. In rare cases, and with the approval of the student's supervisor and the Department's Graduate Committee, students may opt for a non-traditional thesis that meets the standards of an original doctoral-level contribution to knowledge, but in a different form (for example, a documentary). The Department is especially cognizant of the potential for alternative approaches to knowledge-generation and dissemination, such as Indigenous approaches to knowledge, as something to be accommodated on a case-by-case basis.
- Normally, students should complete and defend the dissertation within four years of starting the program. Regardless of format, the thesis will be subject to an oral defence before a committee, including the supervisor, two other Political Science faculty members, an internal-external examiner from another department/program at the University of Waterloo, and an external examiner.

### **Teaching stream:**

#### **Ph D Professional Development Seminar**

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  - Practice job talk / job interview
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#### **Ph D Teaching Seminar**

- Students who participate in the teaching stream of the program will be required to complete the Ph D Teaching Seminar. The following mandatory professional development workshops must be completed:
  - Centre for Teaching Excellence Fundamentals of University Teaching program (student may begin this program as early as Year 1)
  - 2 Guest Lectures in Political Science (students will receive automatic credit if they have the opportunity to teach their own course as a sessional instructor)
  - Develop a syllabus for a real or prospective Political Science course

### Ph D Comprehensive Examination

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  - At the start of Spring term in Year 1, students and their supervisors inform the Political Science Graduate Officer of their field committees and reading lists.
  - At the end of their coursework, in Fall of Year 2, students are required to sit two exams (typically September and November).
  - The first exam will be from one of the graduate research fields of the program the student has selected to study in. It will be comprised of a written exam, followed by an oral exam.
  - The second exam, written in a second research field, may follow the same format as the first exam; alternatively, the student may elect to submit a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in their second research field.
  - If the second area of study is a custom concentration, the comprehensive exam will consist of a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.

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- Normally, students should complete and defend the dissertation within four years of starting the program. Regardless of format, the thesis will be subject to an oral defence before a committee, including the supervisor, two other Political Science faculty members, an internal-external examiner from another department/program at the University of Waterloo, and an external examiner.

### Experiential stream:

#### Ph D Professional Development Seminar

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  - Workshops or courses providing additional training in social science methods
  - CTE workshop aimed at graduate students
  - MITACS Edge workshop/course
  - Writing Centre workshop
  - Career Centre workshop
  - Counselling Services workshop on mindfulness, cognitive therapy, or practical skills to reduce anxiety
  - Completion of any course or workshop relevant to professional development offered by a campus partner

#### Ph D Experiential Seminar

- Students who participate in the experiential stream of the program will be required to complete the Ph D Experiential Seminar. The following course and mandatory professional development workshops must be completed:
  - WIL 601 Career Foundations for Work-Integrated Learning (must be completed prior to internship placement) (Centre for Work Integrated Learning)
  - Writing resumes (must be completed prior to internship placement) (Centre for Career Development)

- Parallel career planning (Centre for Career Development)
- MITACS or other campus partner module(s) (as approved by the Associate Chair, Graduate Studies)

### Ph D Comprehensive Examination

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  - If the second area of study is a custom concentration, the comprehensive exam will consist of a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.

### Ph D Internship

- Students in the experiential stream have the option of undertaking an internship through Mitacs or finding an alternative placement (at the approval of the student's supervisor and the Associate Chair, Graduate Studies). Students will be eligible to go on placements for periods ranging from four months to one year.

### Ph D Internship Report

- Required for students who are participating in the experiential stream. Students must complete and submit a Ph D Internship Report within one month of the completion of their placement.

### Ph D Thesis Proposal

- Students will write a thesis proposal situating their research question(s) in the extant literature, outlining their approach, theory, scope, and research methodology, and explaining the original nature of their contribution, along with a timeline and proposed chapter outline. The proposal will be subject to an oral defence, normally by the end of the sixth term, before a committee including the student's supervisor and two other faculty members.

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### Existing

### Milestone Requirements

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  - At the end of their coursework, typically in September of Year 2, students are required to sit two exams.
  - The first exam will be from one of the three graduate research fields of the program the student has selected to study in. It will be comprised of a written exam, followed by an oral exam.
  - The second exam may follow the same format as the first if the student's second field is also one of the three graduate research fields of the program. Alternatively, the student may elect to submit a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.
  - If the second area of study is a custom concentration, the comprehensive exam will consist of a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.

### **Ph D Thesis Proposal**

- Students will write a thesis proposal situating their research question(s) in the extant literature, outlining their approach, theory, scope, and research methodology, and explaining the original nature of their contribution, along with a timeline and proposed chapter outline. The proposal will be subject to an oral defence, normally by the end of the sixth term, before a committee including the student's supervisor and two other faculty members.

### **Ph D Thesis**

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- Normally, students should complete and defend the dissertation within four years of starting the program. Regardless of format, the thesis will be subject to an oral defence before a committee, including the supervisor, two other Political Science faculty members, an internal-external examiner from another department/program at the University of Waterloo, and an external examiner.

### **Experiential stream:**

#### **Ph D Professional Development Seminar**

- Students must complete 3 professional development workshops to satisfy the requirements of the Ph D Professional Development Seminar. Workshops must be approved by the Associate Chair, Graduate Studies, but may include the following:
  - Practice job talk / job interview
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  - Completion of any course or workshop relevant to professional development offered by a campus partner

#### **Ph D Experiential Seminar**

- Students who participate in the experiential stream of the program will be required to complete the Ph D Experiential Seminar. The following course and mandatory professional development workshops must be completed:
  - WIL 601 Career Foundations for Work-Integrated Learning (must be completed prior to internship placement) (Centre for Work Integrated Learning)
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  - If the second area of study is a custom concentration, the comprehensive exam will consist of a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.

### **Ph D Internship**

- Students in the experiential stream have the option of undertaking an internship through Mitacs or finding an alternative placement (at the approval of the student's supervisor and the Associate Chair, Graduate Studies). Students will be eligible to go on placements for periods ranging from four months to one year.

### **Ph D Internship Report**

- Required for students who are participating in the experiential stream. Students must complete and submit a Ph D Internship Report within one month of the completion of their placement.

### **Ph D Thesis Proposal**

- Students will write a thesis proposal situating their research question(s) in the extant literature, outlining their approach, theory, scope, and research methodology, and explaining the original nature of their contribution, along with a timeline and proposed chapter outline. The proposal will be subject to an oral defence, normally by the end of the sixth term, before a committee including the student's supervisor and two other faculty members.

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### **Notes**

- [Department of Political Science website](#)
- [Doctor of Philosophy \(Ph D\) in Political Science future students program page](#)

## Specializations

## Undergraduate Plan Guidelines

## Workflow Information

**Workflow Path**

Committee approvals,

**Faculty/AFIW Path(s) for Workflow**

Faculty of Arts

## Dependencies

# PhD in Political Science-Co-op - Doctor of Philosophy (PhD) in Political Science - Co-operative Program

[Top](#)

## Effective Date and Career

**Career**

Graduate,

Proposed

**Effective Term and Year**

Spring 2026

Existing

**Effective Term and Year**

Fall 2025

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-09-26

**Quality Assurance Designation**

Major Modification Qad

**Major Modification Categories**

Add/re-name a graduate research field, graduate specialization, honours, option, specialization, undergraduate diploma, minor  
Closure of a graduate research field, graduate specialization, honours, option, specialization, undergraduate diploma,

minor

**Is there an impact to existing students?**

Yes,

**Impact on Existing Students**

Changes will apply to new cohorts only (Fall 2026 and beyond).

**Is the credential name changing?**

No,

**Graduate Co-operative Requirements**

No,

**Change to Learning Outcomes**

No,

**Rationale and Background for Change(s)**

1) Updating the list of research fields: Updating the list of research fields could enhance recruitment and will better align with student interests in the field, including interdisciplinarity. The revised fields are consistent with the discipline and are better aligned with faculty expertise. The program's learning outcomes remain the same.

The program currently includes the following graduate research fields:

- Canadian Politics
- International Relations
- Political Economy

The revised graduate research fields are as follows:

- Canadian Politics
- Comparative Politics
- Gender and Politics
- Political Economy
- Political Theory
- Public Policy

2) Expanding the number of elective courses: Expanding the number of elective courses will enhance equity amongst PSCI grad instructors and provide greater choice for students.

The current course requirements are as follows:

- Students must complete 6 (0.50 unit weight) graduate-level courses in PSCI:
- PSCI 600 Political Science Methods
- PSCI 601 Research and Writing in Political Science
- 1 core course in one of the program's three graduate research fields
- 1 course in the student's second area (which may be another of the three graduate research fields or a custom concentration)
- 2 electives in PSCI

The revised course requirements are as follows:

- Students must complete 6 (0.50 unit weight) graduate-level courses in PSCI:
- PSCI 600 Political Science Methods
- PSCI 601 Research and Writing in Political Science
- 4 elective courses in PSCI

3) Adding flexibility to the comprehensive exam reading lists: Flexibility in the composition of comprehensive exam

committees will support program adaptability and allow for greater connection to expertise in Arts. Changes in the reading list requirements will better reflect Ph D student research interests.

## General Program/Plan Information

**Faculty**

Faculty of Arts

**Academic Unit**

Department of Political Science

**Graduate Field of Study**

Political Science

**Faculty**

Faculty of Arts

**Program/Plan Name**

Doctor of Philosophy (Ph D) in Political Science - Co-operative Program

**Graduate Credential Type**

Ph D

**Accelerated Program**

Not applicable,

**Program Types**

Co-operative

**Admit Term(s)**

Fall, Winter, Spring,

**Delivery Mode**

On-campus,

**Proposed****Graduate Research Fields**

- Canadian Politics
- Comparative Politics
- Gender and Politics
- Political Economy
- Political Theory
- Public Policy

**Existing****Graduate Research Fields**

- Canadian Politics
- International Relations
- Political Economy

## Admissions

### Admission Requirements: Minimum Requirements

- Students in the Ph D in Political Science program can apply to transfer into the Ph D in Political Science Co-operative Program after completing at least one academic term. Admission will be decided based on the student's progress to date, and is subject to approval by the Department Associate Chair, Graduate Studies.

## Requirements Information

### Graduate Degree Requirements

- Students must complete the course and milestone requirements listed below in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).
- Students are required to complete WIL 601 Career Foundations for Work-Integrated Learning in their first academic term of their co-op program. Students must complete WIL 601 in addition to the program's course requirements.

### Graduate Course Requirements

## Proposed

**Graduate Course Requirements**

- Students must complete 6 (0.50 unit weight) graduate-level courses in PSCI:
  - PSCI 600 Political Science Methods
  - PSCI 601 Research and Writing in Political Science
  - 4 elective courses in PSCI
- Students entering the Ph D program from the University of Waterloo's Master of Arts (MA) in Political Science program may have already completed some of the required courses. To meet formal course requirements for the Ph D degree, these students must complete 6 new (0.50 unit weight) graduate-level courses.
- Reading courses may supplement regular offerings in the program, although it is understood that they will be approved at the discretion of the Department. Students will normally be permitted to take 1 reading course as part of their degree.
- Students are required to maintain an overall average of 80% in their graduate-level coursework.

## Existing

**Graduate Course Requirements**

- Students must complete 6 (0.50 unit weight) graduate-level courses in PSCI:
  - PSCI 600 Political Science Methods
  - PSCI 601 Research and Writing in Political Science
  - 1 core course in one of the program's three graduate research fields
  - 1 course in the student's second area (which may be another of the three graduate research fields or a custom concentration)
  - 2 electives in PSCI
- If selecting the Canadian Politics research field, students must complete at least 1 of the following core courses:
  - PSCI 661 Canadian Political Institutions
  - PSCI 662 Canadian Political Process
- If selecting the International Relations research field, students must complete at least 1 of the following core courses:
  - PSCI 610 International Relations Theory
  - PSCI 611 Current Issues in International Relations
- If selecting the Political Economy research field, students must complete at least 1 of the following core courses:
  - PSCI 690 Theories of Political Economy
  - PSCI 691 Developments in Political Economy or PSCI 688 Governance of Global Economy
- Students entering the Ph D program from the University of Waterloo's Master of Arts (MA) in Political Science program may have already completed some of the required core courses for their chosen research fields. To meet formal course requirements for the Ph D degree, these students must complete 6 new (0.50 unit weight) graduate-level courses that satisfy their comprehensive examination preparation.
- Reading courses may supplement regular offerings in the program, although it is understood that they will be approved at the discretion of the Department. Students will normally be permitted to take 1 reading course as part of their degree.
- Students are required to maintain an overall average of 80% in their graduate-level coursework.

## Proposed

**Milestone Requirements****Ph D Professional Development Seminar**

- Students must complete 3 professional development workshops to satisfy the requirements of the Ph D Professional Development Seminar. Workshops must be approved by the Associate Chair, Graduate Studies, but may include the following:
  - Practice job talk / job interview
  - Workshops or courses providing additional training in social science methods
  - CTE workshop aimed at graduate students
  - MITACS Edge workshop/course
  - Writing Centre workshop
  - Career Centre workshop
  - Counselling Services workshop on mindfulness, cognitive therapy, or practical skills to reduce anxiety
  - Completion of any course or workshop relevant to professional development offered by a campus partner

**Ph D Experiential Seminar**

- The following mandatory professional development workshops must be completed:
  - Reflective practices in experiential learning (must be completed prior to internship placement) (offered by the Department)
  - Writing resumes (must be completed prior to internship placement) (Centre for Career Development)
  - Parallel career planning (Centre for Career Development)
  - MITACS or other campus partner module(s) (as approved by the Associate Chair, Graduate Studies)

## Ph D Comprehensive Examination

- Students are required to meet the University-level Ph D [Comprehensive Examination](#) minimum requirements, with certain noted exceptions that are specific to the Faculty of Arts Comprehensive Examination minimum requirements:
  - Comprehensive examination purpose: Consistent with University-level minimum requirements.
  - Timing: Consistent with University-level minimum requirements.
  - Committee: Consistent with University-level minimum requirements with the exception that in the Faculty of Arts, the Graduate Chair can approve the committee for comprehensive examinations.
  - Who Chairs an examination: Consistent with University-level minimum requirements.
  - Format / Content: Consistent with University-level minimum requirements.
  - Academic integrity: Consistent with University-level minimum requirements.
- In addition to the University-level and Faculty-level Ph D Comprehensive Examination minimum requirements, students in the Ph D in Political Science program are also required to meet the following requirements:
  - At the start of Spring term in Year 1, students and their supervisors inform the Political Science Graduate Officer of their field committees and reading lists.
  - At the end of their coursework, in Fall of Year 2, students are required to sit two exams (typically September and November).
  - The first exam will be from one of the graduate research fields of the program the student has selected to study in. It will be comprised of a written exam, followed by an oral exam.
  - The second exam, written in a second research field, may follow the same format as the first exam; alternatively, the student may elect to submit a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in their second research field.
  - If the second area of study is a custom concentration, the comprehensive exam will consist of a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.

## Graduate Studies Work Report

- Students must complete and submit a work-term report within one month of the completion of the work-term(s).

## Ph D Thesis Proposal

- Students will write a thesis proposal situating their research question(s) in the extant literature, outlining their approach, theory, scope, and research methodology, and explaining the original nature of their contribution, along with a timeline and proposed chapter outline. The proposal will be subject to an oral defence, normally by the end of the sixth term, before a committee including the student's supervisor and two other faculty members.

## Ph D Thesis

- Students will have choice in the format of their thesis. Students may choose a traditional dissertation (ranging from 200 to 350 pages in length), or a 'publication model' consisting of at least three sole-authored published (or in press) works, at least one of which is in a traditional, peer-reviewed outlet (other publications might include research reports for think tanks, etc.), and including an original introduction, conclusion and any necessary bridging chapters to reflect a coherent project. In rare cases, and with the approval of the student's supervisor and the Department's Graduate Committee, students may opt for a non-traditional thesis that meets the standards of an original doctoral-level contribution to knowledge, but in a different form (for example, a documentary). The Department is especially cognizant of the potential for alternative approaches to knowledge-generation and dissemination, such as Indigenous approaches to knowledge, as something to be accommodated on a case-by-case basis.
- Normally, students should complete and defend the dissertation within four years of starting the program. Regardless of format, the thesis will be subject to an oral defence before a committee, including the supervisor, two other Political Science faculty members, an internal-external examiner from another department/program at the University of Waterloo, and an external examiner.

## Existing

### Milestone Requirements

#### Ph D Professional Development Seminar

- Students must complete 3 professional development workshops to satisfy the requirements of the Ph D Professional Development Seminar. Workshops must be approved by the Associate Chair, Graduate Studies, but may include the following:
  - Practice job talk / job interview
  - Workshops or courses providing additional training in social science methods
  - CTE workshop aimed at graduate students
  - MITACS Edge workshop/course
  - Writing Centre workshop
  - Career Centre workshop
  - Counselling Services workshop on mindfulness, cognitive therapy, or practical skills to reduce anxiety
  - Completion of any course or workshop relevant to professional development offered by a campus partner

#### Ph D Experiential Seminar

- The following mandatory professional development workshops must be completed:
  - Reflective practices in experiential learning (must be completed prior to internship placement) (offered by the Department)
  - Writing resumes (must be completed prior to internship placement) (Centre for Career Development)
  - Parallel career planning (Centre for Career Development)
  - MITACS or other campus partner module(s) (as approved by the Associate Chair, Graduate Studies)

## Ph D Comprehensive Examination

- Students are required to meet the University-level Ph D [Comprehensive Examination](#) minimum requirements, with certain noted exceptions that are specific to the Faculty of Arts Comprehensive Examination minimum requirements:
  - Comprehensive examination purpose: Consistent with University-level minimum requirements.
  - Timing: Consistent with University-level minimum requirements.
  - Committee: Consistent with University-level minimum requirements with the exception that in the Faculty of Arts, the Graduate Chair can approve the committee for comprehensive examinations.
  - Who Chairs an examination: Consistent with University-level minimum requirements.
  - Format / Content: Consistent with University-level minimum requirements.
  - Academic integrity: Consistent with University-level minimum requirements.
- In addition to the University-level and Faculty-level Ph D Comprehensive Examination minimum requirements, students in the Ph D in Political Science program are also required to meet the following requirements:
  - At the end of their coursework, typically in September of Year 2, students are required to sit two exams.
  - The first exam will be from one of the three graduate research fields of the program the student has selected to study in. It will be comprised of a written exam, followed by an oral exam.
  - The second exam may follow the same format as the first if the student's second field is also one of the three graduate research fields of the program. Alternatively, the student may elect to submit a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.
  - If the second area of study is a custom concentration, the comprehensive exam will consist of a review essay broadly addressing the major theoretical debates, methodological hurdles, or substantive problems posed by existing scholarship in the field.

## Graduate Studies Work Report

- Students must complete and submit a work-term report within one month of the completion of the work-term(s).

## Ph D Thesis Proposal

- Students will write a thesis proposal situating their research question(s) in the extant literature, outlining their approach, theory, scope, and research methodology, and explaining the original nature of their contribution, along with a timeline and proposed chapter outline. The proposal will be subject to an oral defence, normally by the end of the sixth term, before a committee including the student's supervisor and two other faculty members.

## Ph D Thesis

- Students will have choice in the format of their thesis. Students may choose a traditional dissertation (ranging from 200 to 350 pages in length), or a 'publication model' consisting of at least three sole-authored published (or in press) works, at least one of which is in a traditional, peer-reviewed outlet (other publications might include research reports for think tanks, etc.), and including an original introduction, conclusion and any necessary bridging chapters to reflect a coherent project. In rare cases, and with the approval of the student's supervisor and the Department's Graduate Committee, students may opt for a non-traditional thesis that meets the standards of an original doctoral-level contribution to knowledge, but in a different form (for example, a documentary). The Department is especially cognizant of the potential for alternative approaches to knowledge-generation and dissemination, such as Indigenous approaches to knowledge, as something to be accommodated on a case-by-case basis.
- Normally, students should complete and defend the dissertation within four years of starting the program. Regardless of format, the thesis will be subject to an oral defence before a committee, including the supervisor, two other Political Science faculty members, an internal-external examiner from another department/program at the University of Waterloo, and an external examiner.

## Notes

- [Department of Political Science website](#)

## Specializations

## Undergraduate Plan Guidelines

## Workflow Information

**Workflow Path**  
Committee approvals,

**Faculty/AFIW Path(s) for Workflow**  
Faculty of Arts

## Dependencies

# MA in Political Science - Master of Arts (MA) in Political Science

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## Effective Date and Career

**Career**  
Graduate,

Proposed

**Effective Term and Year**  
Spring 2026

Existing

**Effective Term and Year**  
Fall 2025

## Proposal Details

**Proposal Type**  
Change,

**Academic Unit Approval**  
2025-09-26

**Quality Assurance Designation**  
Major Modification Qad

**Major Modification Categories**

Graduate only: The introduction or deletion of a Master's research paper, thesis, coursework study option

**Is there an impact to existing students?**

Yes,

**Impact on Existing Students**

Changes will apply to new cohorts only (Fall 2026 and beyond).

**Is the credential name changing?**

No,

**Graduate Co-operative Requirements**

Not Applicable,

**Change to Learning Outcomes**

No,

**Rationale and Background for Change(s)**

Removing the Thesis study option. The Department would like to offer the Master's Research Paper (MRP) option only for the MA in Political Science programs. This will ensure greater predictability with respect to course enrolments (Winter), supervision (Winter, Spring), and scheduling (Winter, Spring). This change will also help to ensure timely completion of the MA degree (3 terms for the MRP option and 5 terms for the MRP with co-op option). MA students writing an MRP will continue to benefit from the same MA funding opportunities and doctoral prospects.

The program's learning outcomes remain the same. The MRP option is already the standard default option pursued by Political Science MA students. There are no changes being proposed to the course or milestone requirements for the MRP option.

**General Program/Plan Information****Faculty**

Faculty of Arts

**Academic Unit**

Department of Political Science

**Graduate Field of Study**

Political Science

**Faculty**

Faculty of Arts

**Program/Plan Name**

Master of Arts (MA) in Political Science

**Graduate Credential Type**

Master's

**Accelerated Program**

Not applicable,

Proposed

**Study Options (New)**

Master's Research Paper

Existing

**Study Options (New)**

Thesis / Master's Research Paper

**Admit Term(s)**

Fall,

**Delivery Mode**

On-campus,

**Length of Program**

- 3 terms (12 months)

## Admissions

**Admission Requirements: Minimum Requirements**

- An Honours Bachelor's degree (or equivalent) in Political Science with at least a 78% overall standing.
- Statement of Research.
- Students with an Honours BA in a related discipline will be considered for admission but may be required to complete further work in Political Science before proceeding. Students with a General Bachelor of Arts (BA) in Political Science may be admitted to a qualifying program, and then apply for admission to the Master of Arts (MA) program after completion of that program.
- Probationary students admitted to the program must achieve at least 75% in 2 predetermined courses in order to continue in the Winter term. Normally a student will not continue on probationary status for more than two terms.
- Transitional students admitted are normally required to complete additional predetermined undergraduate or graduate courses and achieve at least a 75% average.
- [English language proficiency \(ELP\)](#) (if applicable)

**Admission Requirements: Application materials**

- Résumé
- Supplementary information form
- Transcript(s)
- Writing sample

#### Admission Requirements: References

- Number of references: 3
- Type of references: normally from academic sources

## Requirements Information

### Proposed

#### Graduate Degree Requirements

- Students must complete the course and milestone requirements listed below in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).
- Note: At the time of application, students are asked to provide the Department with a general outline of their research interests, together with a suggested Master's Research Paper project. There are many opportunities for students and faculty to discuss research interests in the program. Upon arrival, the Graduate Officer assigns a faculty advisor to each student. Although the faculty advisor could become a student's supervisor, the advisor is to assist and offer advice on academic and administrative matters until a research supervisor is chosen.

### Existing

#### Graduate Degree Requirements

- Students must complete the course and milestone requirements associated with their chosen study option in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).
- Note: At the time of application, students are asked to provide the Department with a general outline of their research interests, together with a suggested Thesis or Master's Research Paper project. There are many opportunities for students and faculty to discuss research interests and the two options in the program. Upon arrival, the Graduate Officer assigns a faculty advisor to each student. Although the faculty advisor could become a student's supervisor, the advisor is to assist and offer advice on academic and administrative matters until a research supervisor is chosen.
- The Department presumes that all students are in the Master's Research Paper option. Students who wish to write a thesis may apply to do so at the end of the Fall term. A committee composed of the Graduate Officer, the prospective supervisor and prospective reader assesses a thesis proposal.

### **Master's Research Paper Option: Course Requirements**

No Rules

### **Master's Research Paper Option: Course Requirements**

- Students must complete the equivalent of 6 one-term graduate level Political Science courses (0.50 unit weight) including PSCI 600 Political Science Methods and PSCI 601 Research and Writing in Political Science.
- The overall average achieved in the 6 credit courses should be at least 70%.
- Reading courses may supplement regular offerings in the program, although it is understood that they will be approved at the discretion of the Department. Students will normally be permitted to take 1 reading course as part of their degree.

### **Master's Research Paper Option: Milestone Requirements**

#### **Master's Research Paper**

- The Master's Research Paper is best thought of as a "mini thesis" and is the equivalent of 2 one-term courses (0.50 unit weight). The work is co-supervised by two faculty members who may ask for corrections and who jointly decide on the grade to be awarded upon completion.
- Students must achieve a grade of 75% or higher on their MRP in order to satisfy the degree requirements for the program.

#### **Notes**

- [Department of Political Science website](#)
- [Master of Arts \(MA\) in Political Science future students program page](#)

## **Specializations**

## **Undergraduate Plan Guidelines**

## Workflow Information

**Workflow Path**

Committee approvals,

**Faculty/AFIW Path(s) for Workflow**

Faculty of Arts

## Dependencies

# MA in Political Science-Co-op - Master of Arts (MA) in Political Science - Co-operative Program (direct entry)

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## Effective Date and Career

**Career**

Graduate,

Proposed

**Effective Term and Year**

Spring 2026

Existing

**Effective Term and Year**

Fall 2025

## Proposal Details

**Proposal Type**

Change,

**Academic Unit Approval**

2025-09-26

**Quality Assurance Designation**

Major Modification Qad

**Major Modification Categories**

Graduate only: The introduction or deletion of a Master's research paper, thesis, coursework study option

**Is there an impact to existing students?**

Yes,

**Impact on Existing Students**

Changes will apply to new cohorts only (Fall 2026 and beyond).

**Is the credential name changing?**

No,

**Graduate Co-operative Requirements**

No,

**Change to Learning Outcomes**

No,

**Rationale and Background for Change(s)**

Removing the Thesis study option. The Department would like to offer the Master's Research Paper (MRP) option only for the MA in Political Science programs. This will ensure greater predictability with respect to course enrolments (Winter), supervision (Winter, Spring), and scheduling (Winter, Spring). This change will also help to ensure timely completion of the MA degree (3 terms for the MRP option and 5 terms for the MRP with co-op option). MA students writing an MRP will continue to benefit from the same MA funding opportunities and doctoral prospects.

The program's learning outcomes remain the same. The MRP option is already the standard default option pursued by Political Science MA students. There are no changes being proposed to the course or milestone requirements for the MRP option.

## General Program/Plan Information

**Faculty**

Faculty of Arts

**Academic Unit**

Department of Political Science

**Graduate Field of Study**

Political Science

**Faculty**

Faculty of Arts

**Program/Plan Name**

Master of Arts (MA) in Political Science - Co-operative Program (direct entry)

**Graduate Credential Type**

Master's

**Accelerated Program**

Not applicable,

Proposed

**Study Options (New)**

Master's Research Paper

Existing

**Study Options (New)**

Thesis / Master's Research Paper

**Program Types**

Co-operative

**Admit Term(s)**

Fall,

**Delivery Mode**

On-campus,

**Length of Program**

- 5 terms (20 months)

## Admissions

**Admission Requirements: Minimum Requirements**

- An Honours Bachelor's degree (or equivalent) in Political Science with at least a 78% overall standing.
- Statement of Research.
- Students with an Honours BA in a related discipline will be considered for admission but may be required to complete further work in Political Science before proceeding. Students with a General Bachelor of Arts (BA) in Political Science may be admitted to a qualifying program, and then apply for admission to the Master of Arts (MA) program after completion of that program.
- Probationary students admitted to the program must achieve at least 75% in 2 predetermined courses in order to continue in the Winter term. Normally a student will not continue on probationary status for more than two terms.
- Transitional students admitted are normally required to complete additional predetermined undergraduate or graduate courses and achieve at least a 75% average.
- [English language proficiency \(ELP\)](#) (if applicable)

**Admission Requirements: Application materials**

- Résumé
- Supplementary information form
- Transcript(s)
- Writing sample

**Admission Requirements: References**

- Number of references: 3
- Type of references: normally from academic sources

## Requirements Information

### Proposed

#### Graduate Degree Requirements

- Students must complete the course and milestone requirements listed below in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).
- Students are required to complete WIL 601 Career Foundations for Work-Integrated Learning in their first academic term of their co-op program. Students must complete WIL 601 in addition to the program's course requirements.
- Note: At the time of application, students are asked to provide the Department with a general outline of their research interests, together with a suggested Master's Research Paper project. There are many opportunities for students and faculty to discuss research interests in the program.

### Existing

#### Graduate Degree Requirements

- Students must complete the course and milestone requirements associated with their chosen study option in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).
- Students are required to complete WIL 601 Career Foundations for Work-Integrated Learning in their first academic term of their co-op program. Students must complete WIL 601 in addition to the program's course requirements.
- Note: At the time of application, students are asked to provide the Department with a general outline of their research interests, together with a suggested Thesis or Master's Research Paper project. There are many opportunities for students and faculty to discuss research interests and the two options in the program.
- The Department presumes that all students are in the Master's Research Paper option. Students who wish to write a thesis may apply to do so at the end of the Fall term. A committee composed of the Graduate Officer, the prospective supervisor and prospective reader assesses a thesis proposal.

### Master's Research Paper Option: Course Requirements

No Rules

### Master's Research Paper Option: Course Requirements

- Students must complete the equivalent of 6 one-term graduate level Political Science courses (0.50 unit weight) including PSCI 600 Political Science Methods and PSCI 601 Research and Writing in Political Science.
- The overall average achieved in the 6 credit courses should be at least 70%.
- Reading courses may supplement regular offerings in the program, although it is understood that they will be approved at the discretion of the Department. Students will normally be permitted to take 1 reading course as part of their degree.

### Master's Research Paper Option: Milestone Requirements

#### Graduate Studies Work Report

- Students must complete and submit a work term report within one month of the completion of the work term.

#### Master's Research Paper

- The Master's Research Paper is best thought of as a "mini thesis" and is the equivalent of 2 one-term courses (0.50 unit weight). The work is co-supervised by two faculty members who may ask for corrections and who jointly decide on the grade to be awarded upon completion.
- Students must achieve a grade of 75% or higher on their MRP in order to satisfy the degree requirements for the program.

#### Notes

- [Department of Political Science website](#)

## Specializations

## Undergraduate Plan Guidelines

## Workflow Information

**Workflow Path**  
Committee approvals,

**Faculty/AFIW Path(s) for Workflow**  
Faculty of Arts

## Dependencies

# PhD in Psychology - Doctor of Philosophy (PhD) in Psychology

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## Effective Date and Career

**Career**  
Graduate,

Proposed

**Effective Term and Year**  
Spring 2026

Existing

**Effective Term and Year**  
Fall 2025

## Proposal Details

**Proposal Type**  
Change,

**Academic Unit Approval**  
2025-03-25

**Quality Assurance Designation**  
Major Modification Qad

**Major Modification Categories**  
Add/re-name a graduate research field, graduate specialization, honours, option, specialization, undergraduate diploma, minor

**Is there an impact to existing students?**  
Yes,

### Impact on Existing Students

The Graduate Specialization will be available to currently registered students.

**Is the credential name changing?**  
No,

**Graduate Co-operative Requirements**  
Not Applicable,

## Change to Learning Outcomes

No,

### Rationale and Background for Change(s)

Updating the degree requirements to include a new Graduate Specialization called “Applied Data Science”. There is increasing demand for training in the psychological and behavioural sciences that centers data science skills. This reflects both the scientific field evolving to require its practitioners to have command over increasingly sophisticated data analytic methods and opportunities outside of academia to apply one’s training in the psychological and behavioural sciences in the context of occupations that require those same data analytic skills. The graduate specialization will provide UW Psychology graduate students the opportunity to further develop their data science related skills (e.g., data analysis, visualization, coding, wrangling) and receive a credential to acknowledge and highlight this aspect of their training (note that a Ph D in Psychology, particularly at UW, has always involved the development of advanced data science related skills. However, this fact might not be appreciated outside of Psychology departments). Relatedly, a need for more offerings of data science/statistics courses has been a theme that emerged in our last self-study and also our current one. Meeting these needs for students could also help us further differentiate our programs from others, improving recruitment. As further evidence of demand we conducted an informal survey of existing students and 89% responded yes (70%)/maybe (19%) that they would “... be interested in completing this graduate specialization.” We hope this cements UW Psychology as the best and most sought-after place to be a graduate student in Canada, and among the top destinations in the world. As noted above, data science skills have long been an important part of our program and as such there will be no change to the learning outcomes.

The requirements for the new specialization are outlined below:

The Graduate Specialization in Applied Data Science consists of a set of 4 graduate level courses (0.50 weight) and a teaching requirement. Specified courses are those that are prescribed as part of the Graduate Specialization. Students must have completed the departmental statistics requirement to receive the Graduate Specialization in Applied Data Science and courses taken to meet that requirement cannot be used to meet the requirements of the Graduate Specialization in Applied Data Science. The requirements for the Graduate Specialization are described below.

Complete 4 of the following (or approved alternatives):

- PSYCH 634 Data Management, Visualization, and Analysis
- PSYCH 640 Special Topics in Psychology (on an approved topic related to Applied Data Science)
- PSYCH 800 Psychometric Theory & Structural Equation Modeling
- PSYCH 801 Advanced Structural Equation Modeling
- PSYCH 803 Meta-Analysis
- PSYCH 804 Multi-Level Modeling Applications in Psychology
- PSYCH 810 Directed Studies (on an approved topic related to Applied Data Science)

The teaching requirement can be completed by teaching as instructor-of-record or being a teaching assistant in a course related to applied data science in the following courses:

- PSYCH 292 Basic Data Analysis
- PSYCH 391 Advance Data Analysis
- PSYCH 492 Psychological Measurement: Foundations of Research and Practice
- PSYCH 630 ANOVA
- PSYCH 632 Regression
- PSYCH 634 Data Management, Visualization, and Analysis
- PSYCH 640 Special Topics in Psychology (on an approved topic related to Applied Data Science)
- PSYCH 800 Psychometric Theory & Structural Equation Modeling
- PSYCH 801 Advanced Structural Equation Modeling
- PSYCH 803 Meta-Analysis
- PSYCH 804 Multi-Level Modeling Applications in Psychology
- PSYCH 810 Directed Studies (on an approved topic related to Applied Data Science)

Meeting the teaching requirement through teaching as instructor-of-record or being a teaching assistant in a course related to applied data science that is not listed or meeting the requirement via alternative means requires approval of the Graduate Officer.

## General Program/Plan Information

### Faculty

Faculty of Arts

### Academic Unit

Department of Psychology

### Graduate Field of Study

### Faculty

**Program/Plan Name**

Doctor of Philosophy (Ph D) in Psychology

**Graduate Credential Type**

Ph D

**Accelerated Program**

Not applicable,

**Admit Term(s)**

Fall,

**Delivery Mode**

On-campus,

**Length of Program**

- The Department requires a minimum period of registration of 9 terms beyond an Honours Bachelor's degree or 6 terms beyond a Master's degree. While a Ph D may be obtained within 9 terms of an Honours BA, a period of 12 to 18 terms is typical.

**Graduate Research Fields**

- Clinical Psychology
- Cognitive Neuroscience
- Cognitive Psychology
- Developmental Psychology
- General Psychology
- Industrial/Organizational Psychology
- Social Psychology

**Graduate Specializations**

- Applied Data Science

**Additional Program Information**

- Students admitted to the Clinical Psychology field (area of research) of the Ph D program must supply a Criminal Record Check (Vulnerable Sector) to the Department of Psychology prior to being matriculated.

## Admissions

**Admission Requirements: Minimum Requirements**

- A 80% overall standing, or equivalent, in the last two years of study in the previous degree is the minimum requirement for admission.
- Candidates applying to the Industrial/Organizational Psychology graduate research field within the program must submit results from the Graduate Record Examination (Verbal, Quantitative, and Analytic scores). These scores are optional for students applying to the Cognitive Neuroscience, Cognitive Psychology, and Developmental Psychology graduate research fields.
- Please note that in most areas a Master's degree is not required for admission into the Ph D program (the exception is Social Psychology and Clinical Psychology).
- [English language proficiency \(ELP\)](#) (if applicable)

#### **Admission Requirements: Application materials**

- Graduate Record Examination (GRE)
  - Required for candidates applying to the Industrial/Organizational Psychology graduate research field within the program and optional for candidates applying to the Cognitive Neuroscience, Cognitive Psychology, and Developmental Psychology graduate research fields.
- Personal statement
- Supplementary information form
- Transcript(s)

#### **Admission Requirements: References**

- Number of references: 3
- Type of references: academic

## **Requirements Information**

#### **Graduate Degree Requirements**

- Students must complete the course and milestone requirements listed below in addition to the [Graduate Academic Integrity Module \(Graduate AIM\)](#).
- Students must be admitted to one of the following Graduate Research Fields:
  - Clinical Psychology
  - Cognitive Neuroscience
  - Cognitive Psychology
  - Developmental Psychology
  - Industrial/Organizational Psychology
  - Social Psychology

## Graduate Course Requirements

No Rules

### Proposed

#### Graduate Course Requirements

- Course requirements are determined by the student's previous academic background and their Graduate Research Field.
- Where applicable course requirements for students entering with a Bachelors degree or equivalent or an MA degree from the University of Waterloo in the Graduate Research Field in which they are completing their Ph D are described below. Students entering directly into a Ph D without completing an MA may be permitted to complete an MA during their Ph D. If students have relevant academic background beyond a Bachelor's degree or equivalent but have not completed the MA degree from the University of Waterloo in the Graduate Research Field in which they are completing their Ph D, then the Ph D course requirements can, when deemed appropriate, be determined in consultation with the student's advisor, the Area Head, and Associate Chair, Graduate Studies in Psychology prior to admission.
- Students enrolled in the doctoral program must complete the Department's core requirements, statistics requirements (or credit granted for evidence of a strong undergraduate statistics background) and comprehensive breadth requirements as described within each Graduate Research Field's course requirements below. Courses with a numeric grading basis must be taken to meet the core and statistics requirements unless departmental permission is provided to take a course with a Credit/No Credit grading basis. For the purposes of the breadth requirement the relevant areas are listed below. Whether a course meets a breadth requirement is determined by the Graduate Research Field. If a student is unclear about whether a course will meet their breadth requirements, then they should consult with their supervisor and area head before enrolling in the course.
  - Clinical Psychology
  - Cognitive Psychology
  - Cognitive Neuroscience
  - Developmental Psychology
  - Industrial/Organizational Psychology
  - Quantitative Methods
  - Social Psychology
- In addition to a student's Graduate Research Field, students can also complete a Graduate Specialization in Applied Data Science (for more details see below).
- All courses taken to meet degree requirements must be accepted for graduate credit by the Department of Psychology and no degree candidate can fulfil more than half of the minimum department course requirements with Credit/No Credit courses.
- Course requirements are minimum requirements only. Students may be required to take additional courses depending on their previous academic background and Graduate Research Field.
- Courses from outside the Department of Psychology may also be considered. Departmental permission is required. Note: When selecting a course from outside of the Department of Psychology, students should check with their advisor about its suitability.
- Transfer credits may also be considered. The acceptance of transfer credits from prior registration at another university will be determined in individual cases by the Associate Dean (Graduate Studies) of the Faculty at the time of admission to the program. Transfer credits must be "unused" credits (i.e., they must not have been credited towards an earlier acquired degree or other academic credential). Transfer credits must be specified in writing at the time of departmental recommendation for admission. A minimum of 70% (University of Waterloo converted grade) is required for transfer credit.
- Courses from outside the Department of Psychology and transfer credits can usually count for no more than 2 one-term credits toward breadth requirements.
- Use of a course not listed in the course requirements below to meet a degree requirement and other course substitutions are permitted but require departmental permission. Students should confirm the appropriateness of the course substitution with their advisor and have it approved by the Area head, and Associate Chair, Graduate Studies in Psychology.
- Students pursuing the **Clinical Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to meet the course requirements beginning Year One below.
- If a student enters the Ph D program having completed the MA in Psychology degree with a Clinical Psychology Graduate Research Field from the University of Waterloo, then the student is required to meet the course requirements beginning Year Three below in addition to completing any courses listed in Year One and Year Two not already completed. By the end of the Ph D, students need to have completed all requirements from Year One to Year Six below or approved substitutes when courses completed during both the MA and Ph D are considered. The courses are listed below in a typical sequence. Individual student's course sequences may vary, for example, based on course availability.
  - 2 statistics courses one of which must be PSYCH 630 Multiple Regression from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling

- PSYCH 801 Advanced Structural Equation Modeling
  - PSYCH 803 Meta-Analysis
  - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 4 breadth courses from other graduate research fields outside of Clinical Psychology (e.g., not from the list of core, clinical practica, or research Clinical Psychology courses below) or an approved substitute. Students need to ensure that they meet the CPA breadth requirements.
  - Year One
    - Coursework (core):
      - PSYCH 716 Adult Psychopathology
      - PSYCH 717 Psychological Assessment I
      - PSYCH 718 Psychological Assessment II
      - PSYCH 719 Ethics and Professional Issues in Clinical Psychology
    - Clinical Practica:
      - PSYCH 720A Practicum in Interviewing & Cognitive Assessment I
      - PSYCH 720B Practicum in Interviewing & Cognitive Assessment II
      - PSYCH 721A Diagnostic Assessment Practicum I
      - PSYCH 721B Diagnostic Assessment Practicum II
      - PSYCH 722C Clinical Full-Time Fieldwork Placement I (0.50 unit weight) or PSYCH 811C Clinical Part-Time Fieldwork Placement I (0.25 unit weight)
    - Research Activities:
      - PSYCH 621 Advanced Clinical Research Forum I
  - Year Two
    - Coursework (core):
      - PSYCH 723 Child Psychopathology and Psychotherapy
      - PSYCH 724 Personality & Measurement Theory
      - PSYCH 725 Cognitive Behaviour Therapy
    - Clinical Practica:
      - PSYCH 726A Practicum in Integrated Assessment I
      - PSYCH 726B Practicum in Integrated Assessment II
      - Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II.
    - Research Activities:
      - PSYCH 621 Advanced Clinical Research Forum II
  - Year Three
    - Coursework (core):
      - PSYCH 727 Efficacy and Program Evaluation
      - PSYCH 728 Psychotherapy: Classical Roots & Contemporary Developments
    - Clinical Practica:
      - PSYCH 729A, PSYCH 729B, PSYCH 729C Child and Adolescent Psychotherapy Practicum I, II, III
      - PSYCH 730A, PSYCH 730B, PSYCH 730C Adult Psychotherapy Practicum I, II, III
      - Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II.
    - Research Activities:
      - PSYCH 621 Advanced Clinical Research Forum III
  - Year Four
    - Coursework (core):
      - PSYCH 731 Emotion-Focused Therapy
    - Clinical Practica:
      - PSYCH 732A, PSYCH 732B, PSYCH 732C Child and Adolescent Psychotherapy Practicum I, II, III
      - PSYCH 733A, PSYCH 733B, PSYCH 733C Adult Psychotherapy Practicum I, II, III
      - Elective: PSYCH 737A, PSYCH 737B, PSYCH 737C Emotion-Focused Therapy Practicum
      - Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II or PSYCH 739A, PSYCH 739B, PSYCH 739C Clinical Fieldwork Placement III (optional, by approval)
    - Research Activities:
      - PSYCH 621 Advanced Clinical Research Forum IV
  - Year Five (and beyond)
    - Clinical Practica:
      - PSYCH 734A, PSYCH 734B, PSYCH 734C Practicum in Supervision I, II, III (required of all students)
      - PSYCH 735A, PSYCH 735B, PSYCH 735C Child and Adolescent Psychotherapy Practicum I, II, III
      - PSYCH 736A, PSYCH 736B, PSYCH 736C Adult Psychotherapy Practicum I, II, III
      - Elective: PSYCH 737A, PSYCH 737B, PSYCH 737C Emotion-Focused Therapy Practicum
      - Elective: PSYCH 740A, PSYCH 740B, PSYCH 740C Senior Practicum I or PSYCH 741A, PSYCH 741B, PSYCH 741C Senior Practicum II or PSYCH 742A, PSYCH 742B, PSYCH 742C Senior Practicum III (optional, by approval)
  - Year Six
    - Students must compete a year of predoctoral residency, the successful completion of which results in the crediting of the Graduate Studies Clinical Internship milestone.
- Students pursuing the **Cognitive Neuroscience** Graduate Research Field must complete the following courses contingent upon the student's previous academic background.
  - If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.

- If a student enters the Ph D having completed the MA in Psychology degree with a Cognitive Neuroscience Graduate Research Field from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA and Ph D are considered.
  - 2 statistics courses from the following list or an approved substitute
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses in Cognitive Neuroscience including PSYCH 677A Fundamentals of Behavioural Neuroscience and PSYCH 784 Human Neuroanatomy and Neuropathology with the remaining selected from the following list or an approved substitute:
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 670 Special Topics in Behavioural Neuroscience
    - PSYCH 779A Cognitive Neuropsychology I
    - PSYCH 781 Cognitive Neuroscience of Memory
    - PSYCH 782 Visual Neuroscience
    - PSYCH 783 Neuroimaging of Cognition
    - PSYCH 785 Attention and the Brain
    - PSYCH 788 (cross-listed as HLTH-672) Epidemiologic Methods in Aging Research
    - PSYCH 789 Mind-wandering and Inattention
    - PSYCH 790 Case Studies in Neuropsychology
    - PSYCH 792 An Introduction to Methods in Computational Neuroscience
    - PSYCH 794 Cognitive Neuroscience of Face Perception
  - 4 breadth courses from other graduate research fields outside of Cognitive Neuroscience (e.g., not from the list of Cognitive Neuroscience core courses above) or an approved substitute.
  - Students must also take PSYCH 707 Cognitive Neuroscience Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Students are encouraged to take PSYCH 707 for a 5th year if they have not yet finished their Ph D. Note: PSYCH 707 is a 0.0 unit weight credit/no credit course.
- Students pursuing the **Cognitive Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.
- If a student enters the Ph D having completed the MA in Psychology degree with a Cognitive Psychology Graduate Research Field from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA and Ph D are considered.
  - 2 statistics courses including PSYCH 630 Advanced Analysis of Variance with the remaining selected from the following list or an approved substitute:
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses in Cognitive Psychology from the following list or an approved substitute:
    - COGSCI 600 Seminar in Cognitive Science
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 650 Special Topics in Cognition and Perception
    - PSYCH 758 Applied Practicum in Cognitive Psychology
    - PSYCH 759 Research Practicum in Cognitive Psychology
    - PSYCH 769 Causal Reasoning
    - PSYCH 770 Basic Issues in Cognition
    - PSYCH 771 Fundamentals of Behavioural Science
    - PSYCH 774 Visual Cognition
    - PSYCH 775 Consciousness and Cognition
    - PSYCH 776 Problem Solving, Judgment and Decision Making
    - PSYCH 777 Human Memory
    - PSYCH 778 Attention
    - PSYCH 779 Language and Reading
    - PSYCH 810 Directed Studies (on departmentally approved topics)
  - 4 breadth courses from other graduate research fields outside of Cognitive Psychology (e.g., not from the list of Cognitive Psychology courses above) or an approved substitute.
  - Students must also take PSYCH 747 Cognitive Psychology Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 747 is a 0.0 unit weight credit/no credit course.
- Students pursuing the **Developmental Psychology** must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.
- If a student enters the Ph D having completed the MA in Psychology degree with a Developmental Psychology Graduate Research Field from the University of Waterloo or the MASc in Developmental and Communication Science at the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA or MASc and Ph D are considered.
  - 2 statistics courses from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance

- PSYCH 632 Multiple Regression
- PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
- PSYCH 800 Psychometric Theory & Structural Equation Modeling
- PSYCH 801 Advanced Structural Equation Modeling
- PSYCH 804 Multi-Level Modeling Applications in Psychology
- 6 core courses in Developmental Psychology from the following list or an approved substitute:
  - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
  - PSYCH 680 Special Topics in Child Behaviour and Development
  - PSYCH 701 Foundations in Cognitive/Social Development: Basic
  - PSYCH 702 Foundations in Cognitive/Social Development: Social Cognitive Development
  - PSYCH 705 Foundations in Language Development: Basic Language Development
  - PSYCH 706 Foundations in Language Development: Pragmatics of Language
  - PSYCH 708 Reasoning about Ownership of Property
  - PSYCH 709 Reasoning about Beliefs and Desires
  - PSYCH 713 Theories of Pretense
  - PSYCH 810 Directed Studies (on departmentally approved topics)
- 4 breadth courses from other graduate research fields outside of Developmental Psychology (i.e., not from the list of Developmental Psychology courses above) or an approved substitute.
- Students must also take PSYCH 710 Current Issues in Developmental Psych Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 710 is a 0.00 unit weight credit/no credit course.
- Students pursuing the Industrial/Organizational Psychology Graduate Research Field are required to have completed the Master of Applied Science (MASc) in Industrial and Organizational (I-O) Psychology degree from the University of Waterloo before entering the Ph D program. Master's degrees in I-O psychology or related fields from other universities will be considered on a case-by-case basis.
- Students pursuing the **Industrial/Organizational Psychology** Graduate Research Field must complete the following courses:
  - 2 statistics courses from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 2 core courses in Industrial/Organizational Psychology selected from the following list or an approved substitute:
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 876 The Psychology of Justice in the Workplace
    - PSYCH 877 Work Motivation
    - PSYCH 878 Job Performance
    - PSYCH 883 Organizational and Management Development
    - PSYCH 884 Special Topics in Industrial & Organizational Psychology
    - PSYCH 886 Psychology of Training
    - PSYCH 888 Negotiation, Conflict Management, and Teamwork: Theory and Practice
  - 2 breadth courses from other graduate research fields outside of Industrial/Organizational Psychology (e.g., not from the list of core Industrial/Organizational Psychology courses above) or an approved substitute.
  - Students must also take PSYCH 885 Industrial and Organizational Psychology Research Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 885 is a 0.00 unit weight credit/no credit course.
- Students in Industrial/Organizational Psychology must take all courses for a numeric grade unless they are only offered Credit/No Credit.
- Students pursuing the **Social Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.
- If a student enters the Ph D having completed the MA in Psychology degree with a Social Psychology Graduate Research Field from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA and Ph D are considered.
  - Minimum 2 statistics courses from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses in Social Psychology including PSYCH 704A Social Psychology and PSYCH 870 Research Design & Methods with the remaining selected from the following list or an approved substitute:
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 690 Special Topics in Social and Personality
    - PSYCH 743 Advanced Intergroup Relations
    - PSYCH 744 Personality in Social Context
    - PSYCH 745 Close Relationships
    - PSYCH 746 Culture and the Mind
    - PSYCH 748 Self-Regulation and Motivation
    - PSYCH 749 Wisdom
  - 4 breadth courses from other graduate research fields outside of Social Psychology (i.e., not from the list of Social Psychology courses above) or an approved substitute. Up to 2 of these breadth courses may be additional statistics courses.
  - Students must also take PSYCH 714 Social Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 714 is a 0.00 unit weight credit/no credit course.
- The General Psychology Graduate Research Field is designed to capture student research trajectories that fall outside

the six main Graduate Research Fields articulated above. Students cannot be admitted into the Ph D program in the General Psychology Graduate Research Field. Entry into the General Psychology Graduate Research Field and course requirements require the approval of the Associate Chair Graduate Studies in Psychology.

- Students pursuing the **General Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background. If a student had entered the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses. If a student had entered the Ph D having completed an MA or MASC in Psychology degree from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA/MASC and Ph D are considered.
  - 2 statistics courses selected from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses from one or more of the Clinical Psychology, Cognitive Neuroscience, Cognitive Psychology, Developmental Psychology, Industrial/Organizational Psychology, or Social Psychology graduate research fields.
  - 4 breadth courses from other graduate research fields outside of the graduate research fields from which the core courses are selected or an approved substitute.
  - Students must also take one of PSYCH 621, PSYCH 707, PSYCH 710, PSYCH 714, PSYCH 747, PSYCH 885 (i.e., area seminars) in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 621, PSYCH 707, PSYCH 710, PSYCH 714, PSYCH 747, PSYCH 885 are 0.00 unit weight credit/no credit courses.
- Students may also choose to pursue a Graduate Specialization in **Applied Data Science**. Pursuing the Graduate Specialization in Applied Data Science requires a plan of study approved by a student's supervisor, Area Head, and Graduate Officer (please request the form from the Graduate Coordinator) detailing how the student plans to meet the requirements of their Graduate Research Field and the Graduate Specialization. Pursuing the Graduate Specialization in Applied Data Science may not be available for students pursuing all Graduate Research Fields.
- A Graduate Specialization is a University credential that is recognized on the student's transcript but not on the diploma and is intended to reflect that a student has successfully completed a set of courses that together provide an in-depth study in the area of the Graduate Specialization. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements associated with the Ph D degree and the requirements associated with the Graduate Specialization.
- The requirements for the Graduate Specialization in Applied Data Science are determined by the student's previous academic background.
- The Graduate Specialization in Applied Data Science consists of a set of 4 graduate level courses (0.50 weight) and a teaching requirement. Specified courses are those that are prescribed as part of the Graduate Specialization. Students must have completed the departmental statistics requirement to receive the Graduate Specialization in Applied Data Science and courses taken to meet that requirement cannot be used to meet the requirements of the Graduate Specialization in Applied Data Science. The requirements for the Graduate Specialization are described below.
  - Complete 4 of the following (or approved alternatives):
    - PSYCH 634 Data Management, Visualization, and Analysis
    - PSYCH 640 Special Topics in Psychology (on an approved topic related to Applied Data Science)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
    - PSYCH 810 Directed Studies (on an approved topic related to Applied Data Science)
  - The teaching requirement can be completed by teaching as instructor-of-record or being a teaching assistant in a course related to applied data science in the following courses:
    - PSYCH 292 Basic Data Analysis
    - PSYCH 391 Advance Data Analysis
    - PSYCH 492 Psychological Measurement: Foundations of Research and Practice
    - PSYCH 630 ANOVA
    - PSYCH 632 Regression
    - PSYCH 634 Data Management, Visualization, and Analysis
    - PSYCH 640 Special Topics in Psychology (on an approved topic related to Applied Data Science)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
    - PSYCH 810 Directed Studies (on an approved topic related to Applied Data Science)
- Meeting the teaching requirement through teaching as instructor-of-record or being a teaching assistant in a course related to applied data science that is not listed or meeting the requirement via alternative means requires approval of the Graduate Officer.

## Existing

### Graduate Course Requirements

- Course requirements are determined by the student's previous academic background and their Graduate Research Field.
- Where applicable course requirements for students entering with a Bachelors degree or equivalent or an MA degree from the University of Waterloo in the Graduate Research Field in which they are completing their Ph D are described below. Students entering directly into a Ph D without completing an MA may be permitted to complete an MA during their Ph D. If students have relevant academic background beyond a Bachelor's degree or equivalent but have not completed the MA degree from the University of Waterloo in the Graduate Research Field in which they are completing their Ph D, then the Ph D course requirements can, when deemed appropriate, be determined in

consultation with the student's advisor, the Area Head, and Associate Chair, Graduate Studies in Psychology prior to admission.

- Students enrolled in the doctoral program must complete the Department's core requirements, statistics requirements (or credit granted for evidence of a strong undergraduate statistics background) and comprehensive breadth requirements as described within each Graduate Research Field's course requirements below. Courses with a numeric grading basis must be taken to meet the core and statistics requirements unless departmental permission is provided to take a course with a Credit/No Credit grading basis. For the purposes of the breadth requirement the relevant areas are listed below. Whether a course meets a breadth requirement is determined by the Graduate Research Field. If a student is unclear about whether a course will meet their breadth requirements, then they should consult with their supervisor and area head before enrolling in the course.
  - Clinical Psychology
  - Cognitive Psychology
  - Cognitive Neuroscience
  - Developmental Psychology
  - Industrial/Organizational Psychology
  - Quantitative Methods
  - Social Psychology
- All courses taken to meet degree requirements must be accepted for graduate credit by the Department of Psychology and no degree candidate can fulfil more than half of the minimum department course requirements with Credit/No Credit courses.
- Course requirements are minimum requirements only. Students may be required to take additional courses depending on their previous academic background and Graduate Research Field.
- Courses from outside the Department of Psychology may also be considered. Departmental permission is required. Note: When selecting a course from outside of the Department of Psychology, students should check with their advisor about its suitability.
- Transfer credits may also be considered. The acceptance of transfer credits from prior registration at another university will be determined in individual cases by the Associate Dean (Graduate Studies) of the Faculty at the time of admission to the program. Transfer credits must be "unused" credits (i.e., they must not have been credited towards an earlier acquired degree or other academic credential). Transfer credits must be specified in writing at the time of departmental recommendation for admission. A minimum of 70% (University of Waterloo converted grade) is required for transfer credit.
- Courses from outside the Department of Psychology and transfer credits can usually count for no more than 2 one-term credits toward breadth requirements.
- Use of a course not listed in the course requirements below to meet a degree requirement and other course substitutions are permitted but require departmental permission. Students should confirm the appropriateness of the course substitution with their advisor and have it approved by the Area head, and Associate Chair, Graduate Studies in Psychology.
- Students pursuing the **Clinical Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to meet the course requirements beginning Year One below.
- If a student enters the Ph D program having completed the MA in Psychology degree with a Clinical Psychology Graduate Research Field from the University of Waterloo, then the student is required to meet the course requirements beginning Year Three below in addition to completing any courses listed in Year One and Year Two not already completed. By the end of the Ph D, students need to have completed all requirements from Year One to Year Six below or approved substitutes when courses completed during both the MA and Ph D are considered. The courses are listed below in a typical sequence. Individual student's course sequences may vary, for example, based on course availability.
  - 2 statistics courses one of which must be PSYCH 630 Multiple Regression from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 4 breadth courses from other graduate research fields outside of Clinical Psychology (e.g., not from the list of core, clinical practica, or research Clinical Psychology courses below) or an approved substitute. Students need to ensure that they meet the CPA breadth requirements.
  - Year One
    - Coursework (core):
      - PSYCH 716 Adult Psychopathology
      - PSYCH 717 Psychological Assessment I
      - PSYCH 718 Psychological Assessment II
      - PSYCH 719 Ethics and Professional Issues in Clinical Psychology
    - Clinical Practica:
      - PSYCH 720A Practicum in Interviewing & Cognitive Assessment I
      - PSYCH 720B Practicum in Interviewing & Cognitive Assessment II
      - PSYCH 721A Diagnostic Assessment Practicum I
      - PSYCH 721B Diagnostic Assessment Practicum II
      - PSYCH 722C Clinical Full-Time Fieldwork Placement I (0.50 unit weight) or PSYCH 811C Clinical Part-Time Fieldwork Placement I (0.25 unit weight)
    - Research Activities:
      - PSYCH 621 Advanced Clinical Research Forum I
  - Year Two
    - Coursework (core):
      - PSYCH 723 Child Psychopathology and Psychotherapy
      - PSYCH 724 Personality & Measurement Theory
      - PSYCH 725 Cognitive Behaviour Therapy
    - Clinical Practica:

- PSYCH 726A Practicum in Integrated Assessment I
  - PSYCH 726B Practicum in Integrated Assessment II
  - Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II.
  - Research Activities:
    - PSYCH 621 Advanced Clinical Research Forum II
- Year Three
  - Coursework (core):
    - PSYCH 727 Efficacy and Program Evaluation
    - PSYCH 728 Psychotherapy: Classical Roots & Contemporary Developments
  - Clinical Practica:
    - PSYCH 729A, PSYCH 729B, PSYCH 729C Child and Adolescent Psychotherapy Practicum I, II, III
    - PSYCH 730A, PSYCH 730B, PSYCH 730C Adult Psychotherapy Practicum I, II, III
    - Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II (optional, by approval). Note: Students must have completed PSYCH 722C Clinical Full-Time Fieldwork Placement I or a set of 2 of PSYCH 811A, PSYCH 811B, and PSYCH 811C Clinical Part-Time Fieldwork Placement I, before they are eligible to take PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II.
  - Research Activities:
    - PSYCH 621 Advanced Clinical Research Forum III
- Year Four
  - Coursework (core):
    - PSYCH 731 Emotion-Focused Therapy
  - Clinical Practica:
    - PSYCH 732A, PSYCH 732B, PSYCH 732C Child and Adolescent Psychotherapy Practicum I, II, III
    - PSYCH 733A, PSYCH 733B, PSYCH 733C Adult Psychotherapy Practicum I, II, III
    - Elective: PSYCH 737A, PSYCH 737B, PSYCH 737C Emotion-Focused Therapy Practicum
    - Elective: PSYCH 738A, PSYCH 738B, PSYCH 738C Clinical Fieldwork Placement II or PSYCH 739A, PSYCH 739B, PSYCH 739C Clinical Fieldwork Placement III (optional, by approval)
  - Research Activities:
    - PSYCH 621 Advanced Clinical Research Forum IV
- Year Five (and beyond)
  - Clinical Practica:
    - PSYCH 734A, PSYCH 734B, PSYCH 734C Practicum in Supervision I, II, III (required of all students)
    - PSYCH 735A, PSYCH 735B, PSYCH 735C Child and Adolescent Psychotherapy Practicum I, II, III
    - PSYCH 736A, PSYCH 736B, PSYCH 736C Adult Psychotherapy Practicum I, II, III
    - Elective: PSYCH 737A, PSYCH 737B, PSYCH 737C Emotion-Focused Therapy Practicum
    - Elective: PSYCH 740A, PSYCH 740B, PSYCH 740C Senior Practicum I or PSYCH 741A, PSYCH 741B, PSYCH 741C Senior Practicum II or PSYCH 742A, PSYCH 742B, PSYCH 742C Senior Practicum III (optional, by approval)
- Year Six
  - Students must compete a year of predoctoral residency, the successful completion of which results in the crediting of the Graduate Studies Clinical Internship milestone.
- Students pursuing the **Cognitive Neuroscience** Graduate Research Field must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.
- If a student enters the Ph D having completed the MA in Psychology degree with a Cognitive Neuroscience Graduate Research Field from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA and Ph D are considered.
  - 2 statistics courses from the following list or an approved substitute
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses in Cognitive Neuroscience including PSYCH 677A Fundamentals of Behavioural Neuroscience and PSYCH 784 Human Neuroanatomy and Neuropathology with the remaining selected from the following list or an approved substitute:
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 670 Special Topics in Behavioural Neuroscience
    - PSYCH 779A Cognitive Neuropsychology I
    - PSYCH 781 Cognitive Neuroscience of Memory
    - PSYCH 782 Visual Neuroscience
    - PSYCH 783 Neuroimaging of Cognition
    - PSYCH 785 Attention and the Brain
    - PSYCH 788 (cross-listed as HLTH-672) Epidemiologic Methods in Aging Research
    - PSYCH 789 Mind-wandering and Inattention
    - PSYCH 790 Case Studies in Neuropsychology
    - PSYCH 792 An Introduction to Methods in Computational Neuroscience
    - PSYCH 794 Cognitive Neuroscience of Face Perception
  - 4 breadth courses from other graduate research fields outside of Cognitive Neuroscience (e.g., not from the list

of Cognitive Neuroscience core courses above) or an approved substitute.

- Students must also take PSYCH 707 Cognitive Neuroscience Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Students are encouraged to take PSYCH 707 for a 5th year if they have not yet finished their Ph D. Note: PSYCH 707 is a 0.0 unit weight credit/no credit course.
- Students pursuing the **Cognitive Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.
- If a student enters the Ph D having completed the MA in Psychology degree with a Cognitive Psychology Graduate Research Field from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA and Ph D are considered.
  - 2 statistics courses including PSYCH 630 Advanced Analysis of Variance with the remaining selected from the following list or an approved substitute:
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses in Cognitive Psychology from the following list or an approved substitute:
    - COGSCI 600 Seminar in Cognitive Science
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 650 Special Topics in Cognition and Perception
    - PSYCH 758 Applied Practicum in Cognitive Psychology
    - PSYCH 759 Research Practicum in Cognitive Psychology
    - PSYCH 769 Causal Reasoning
    - PSYCH 770 Basic Issues in Cognition
    - PSYCH 771 Fundamentals of Behavioural Science
    - PSYCH 774 Visual Cognition
    - PSYCH 775 Consciousness and Cognition
    - PSYCH 776 Problem Solving, Judgment and Decision Making
    - PSYCH 777 Human Memory
    - PSYCH 778 Attention
    - PSYCH 779 Language and Reading
    - PSYCH 810 Directed Studies (on departmentally approved topics)
  - 4 breadth courses from other graduate research fields outside of Cognitive Psychology (e.g., not from the list of Cognitive Psychology courses above) or an approved substitute.
  - Students must also take PSYCH 747 Cognitive Psychology Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 747 is a 0.0 unit weight credit/no credit course.
- Students pursuing the **Developmental Psychology** must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.
- If a student enters the Ph D having completed the MA in Psychology degree with a Developmental Psychology Graduate Research Field from the University of Waterloo or the MASc in Developmental and Communication Science at the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA or MASc and Ph D are considered.
  - 2 statistics courses from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses in Developmental Psychology from the following list or an approved substitute:
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 680 Special Topics in Child Behaviour and Development
    - PSYCH 701 Foundations in Cognitive/Social Development: Basic
    - PSYCH 702 Foundations in Cognitive/Social Development: Social Cognitive Development
    - PSYCH 705 Foundations in Language Development: Basic Language Development
    - PSYCH 706 Foundations in Language Development: Pragmatics of Language
    - PSYCH 708 Reasoning about Ownership of Property
    - PSYCH 709 Reasoning about Beliefs and Desires
    - PSYCH 713 Theories of Pretense
    - PSYCH 810 Directed Studies (on departmentally approved topics)
  - 4 breadth courses from other graduate research fields outside of Developmental Psychology (i.e., not from the list of Developmental Psychology courses above) or an approved substitute.
  - Students must also take PSYCH 710 Current Issues in Developmental Psych Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 710 is a 0.00 unit weight credit/no credit course.
- Students pursuing the Industrial/Organizational Psychology Graduate Research Field are required to have completed the Master of Applied Science (MASc) in Industrial and Organizational (I-O) Psychology degree from the University of Waterloo before entering the Ph D program. Master's degrees in I-O psychology or related fields from other universities will be considered on a case-by-case basis.
- Students pursuing the **Industrial/Organizational Psychology** Graduate Research Field must complete the following courses:
  - 2 statistics courses from the following list or an approved substitute:

- PSYCH 630 Advanced Analysis of Variance
- PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
- PSYCH 800 Psychometric Theory & Structural Equation Modeling
- PSYCH 801 Advanced Structural Equation Modeling
- PSYCH 804 Multi-Level Modeling Applications in Psychology
- 2 core courses in Industrial/Organizational Psychology selected from the following list or an approved substitute:
  - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
  - PSYCH 876 The Psychology of Justice in the Workplace
  - PSYCH 877 Work Motivation
  - PSYCH 878 Job Performance
  - PSYCH 883 Organizational and Management Development
  - PSYCH 884 Special Topics in Industrial & Organizational Psychology
  - PSYCH 886 Psychology of Training
  - PSYCH 888 Negotiation, Conflict Management, and Teamwork: Theory and Practice
- 2 breadth courses from other graduate research fields outside of Industrial/Organizational Psychology (e.g., not from the list of core Industrial/Organizational Psychology courses above) or an approved substitute.
- Students must also take PSYCH 885 Industrial and Organizational Psychology Research Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 885 is a 0.00 unit weight credit/no credit course.
- Students in Industrial/Organizational Psychology must take all courses for a numeric grade unless they are only offered Credit/No Credit.
- Students pursuing the **Social Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background.
- If a student enters the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses.
- If a student enters the Ph D having completed the MA in Psychology degree with a Social Psychology Graduate Research Field from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA and Ph D are considered.
  - Minimum 2 statistics courses from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses in Social Psychology including PSYCH 704A Social Psychology and PSYCH 870 Research Design & Methods with the remaining selected from the following list or an approved substitute:
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 690 Special Topics in Social and Personality
    - PSYCH 743 Advanced Intergroup Relations
    - PSYCH 744 Personality in Social Context
    - PSYCH 745 Close Relationships
    - PSYCH 746 Culture and the Mind
    - PSYCH 748 Self-Regulation and Motivation
    - PSYCH 749 Wisdom
  - 4 breadth courses from other graduate research fields outside of Social Psychology (i.e., not from the list of Social Psychology courses above) or an approved substitute. Up to 2 of these breadth courses may be additional statistics courses.
  - Students must also take PSYCH 714 Social Seminar in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 714 is a 0.00 unit weight credit/no credit course.
- The General Psychology Graduate Research Field is designed to capture student research trajectories that fall outside the six main Graduate Research Fields articulated above. Students cannot be admitted into the Ph D program in the General Psychology Graduate Research Field. Entry into the General Psychology Graduate Research Field and course requirements require the approval of the Associate Chair Graduate Studies in Psychology.
- Students pursuing the **General Psychology** Graduate Research Field must complete the following courses contingent upon the student's previous academic background. If a student had entered the Ph D with only a Bachelor's degree or equivalent, then the student is required to complete 12 one-term (0.50 unit weight) courses. If a student had entered the Ph D having completed an MA or MASC in Psychology degree from the University of Waterloo, then the student is required to complete 8 one-term (0.50 unit weight) courses such that students meet all of the course requirements listed below when courses completed during both the MA/MASC and Ph D are considered.
  - 2 statistics courses selected from the following list or an approved substitute:
    - PSYCH 630 Advanced Analysis of Variance
    - PSYCH 632 Multiple Regression
    - PSYCH 640 Special Topics in Psychology (on departmentally approved topics)
    - PSYCH 800 Psychometric Theory & Structural Equation Modeling
    - PSYCH 801 Advanced Structural Equation Modeling
    - PSYCH 803 Meta-Analysis
    - PSYCH 804 Multi-Level Modeling Applications in Psychology
  - 6 core courses from one or more of the Clinical Psychology, Cognitive Neuroscience, Cognitive Psychology, Developmental Psychology, Industrial/Organizational Psychology, or Social Psychology graduate research fields.
  - 4 breadth courses from other graduate research fields outside of the graduate research fields from which the core courses are selected or an approved substitute.
  - Students must also take one of PSYCH 621, PSYCH 707, PSYCH 710, PSYCH 714, PSYCH 747, PSYCH 885 (i.e., area seminars) in the Fall and Winter terms for a minimum of 4 years unless departmental permission is provided otherwise, or the student completes the program early. Note: PSYCH 621, PSYCH 707, PSYCH 710, PSYCH 714, PSYCH 747, PSYCH 885 are 0.00 unit weight credit/no credit courses.

## Milestone Requirements

### Ph D Thesis

- The Department requires a successful defense of the Ph D Thesis.
- Students must be admitted to one of the following Graduate Research Fields:
  - Clinical Psychology
  - Cognitive Neuroscience
  - Cognitive Psychology
  - Developmental Psychology
  - Industrial/Organizational Psychology
  - Social Psychology
- A Graduate Research Field is a University credential that is recognized on the student's transcript and is intended to reflect that a student has successfully completed research concentrated in the area of the Graduate Research Field. The Department, represented by the student's supervisor and examining committee, must assess whether a student's completed research warrants the field designation at the time of degree completion. To obtain the Graduate Research Field designation, students must also complete the required courses associated with their chosen Graduate Research Field outlined in the above course requirements section.

### Notes

- [Department of Psychology website](#)
- [Doctor of Philosophy \(Ph D\) in Psychology future students program page](#)

## Specializations

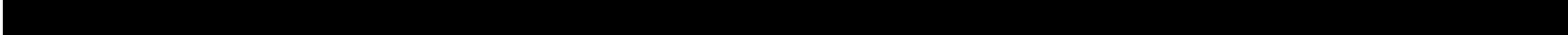
## Undergraduate Plan Guidelines

## Workflow Information

**Workflow Path**  
Committee approvals,

**Faculty/AFIW Path(s) for Workflow**  
Faculty of Arts

**Dependencies**



**FACULTY OF ENVIRONMENT - GRADUATE STUDIES COMMITTEE**

**REPORT TO SENATE GRADUATE COUNCIL**

**January 2026 (Major Modifications)**

1. Program/Course Changes
  - a. Master of Environmental Studies (MES) in Geography
    - i. Addition of a coursework option to the MES program

Prior to form submission, review the [instructions](#) and information regarding [major/minor modifications](#). For questions about the form submission, contact [Trevor Clews](#), Graduate Studies and Postdoctoral Affairs (GSPA).

**Faculty:** Environment

**Program:** Master of Environmental Studies (MES) in Geography

**Program contact name(s):** Maria Strack

**Form completed by:** Maria Strack

**Description of proposed changes:**

Note: changes to courses and milestones also require the completion/submission of the [SGC Graduate Studies Course/Milestone Form](#).

*Adding a Coursework study option including two Graduate Specializations to the MES in Geography program. Students in the coursework option must select one of the following Graduate Specializations to complete the program: "Land-Use Change" or "Tourism and Environmental Change".*

Is this a [major modification](#) to the program? Yes

**Rationale for change(s):**

*This change aims to provide students with flexibility for completing a Masters degree while maintaining learning outcomes through a capstone project course. This also addresses suggestions from the last program cyclical review around the creation of "fall-back" options for research students who may require alternative pathways for program completion and the recommendation to take advantage of new opportunities with partners inside and outside the Faculty and University. The proposed coursework study option provides more flexibility for students to complete graduate studies in the program as a supervisor is not required. The proposed specializations are built around the Department's teaching and research strengths in environmental management and land cover change (particularly through application of geospatial data science) while remaining distinct from the existing Masters of Climate Change program. These specializations also strengthen links to other units in the Faculty by including cross-listed courses in the elective lists and with other Faculties (Recreation and Leisure Studies in Health) through the Tourism and Environmental Change specialization. These units have been consulted throughout the development of the specializations and are supportive of the proposal. The tuition rate for the coursework study option will be the same as the current thesis/MRP tuition rate.*

*The requirements for the new specializations are outlined below:*

*To receive the Graduate Specialization in Land-Use Change, students must successfully complete the following courses:*

- GEMCC630 Land Use Change and the Carbon Cycle
- GEOG700A Geographic Scholarship and Practice 1 - Master's (0.25)
- GEOG700B Geographic Scholarship and Practice 2 - Master's (0.25)
- Complete 1 of the following:
  - GEMCC 699 Graduate Capstone Project
  - GEOG 699 Graduate Capstone Project
  - Another (0.50 unit weight) graduate-level project course as approved by the Graduate Officer
- Complete 3 of the following:

- GEMCC 610 Climate Prediction, Modeling and Scenarios
- GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction
- GEOG 603 Remote Sensing and Earth System Science
- GEOG 646 Hydrology
- GEOG 654 Applied Biogeochemistry
- GEOG 656 Eutrophication
- GEOG 662 Transforming Canadian Resource Management
- GEOG 666 Ecosystem Approach to Park Planning
- Complete 1 of the following:
  - GEOG 604 Spatial Statistics
  - GEOG 617 Applied Statistics in Ecology and Environment
  - GEOG 620 Foundations in Human Geography
  - GEOG 625 Qualitative Methods in Geography
  - GEOG 640 Contextualizing Research in Earth System Science
- Any 1 other GEOG or GEMCC graduate level course (0.50 unit weight). Students may elect to take elective courses outside of GEOG or GEMCC with approval of the Graduate Officer.

To receive the Graduate Specialization in Tourism and Environmental Change, students must successfully complete the following courses:

- GEOG 638 Sustainable Tourism
- GEOG 700A Geographic Scholarship and Practice 1 - Master's (0.25)
- GEOG 700B Geographic Scholarship and Practice 2 - Master's (0.25)
- Complete 1 of the following:
  - GEMCC 699 Graduate Capstone Project
  - GEOG 699 Graduate Capstone Project
  - Another (0.50 unit weight) graduate-level project course as approved by the Graduate Officer
- Complete 3 of the following:
  - ENBUS 632 Sustainability Reporting
  - GEMCC 605 Climate Change and Society
  - GEMCC 622 Climate Change, Natural Hazards and Disaster Risk Reduction
  - GEMCC 652 Climate Change and Community Planning
  - GEOG 635 International Development: Theories and Practice
  - GEOG 666 Ecosystem Approach to Park Planning
  - REC 611 Leading Organizations
  - REC 620 Program Evaluation in Recreation and Sport
  - REC 631 Issues in Leisure, Place and Space
  - REC 641 Community Relations and Stakeholder Engagement
- Complete 1 of the following:
  - GEOG 604 Spatial Statistics
  - GEOG 617 Applied Statistics in Ecology and Environment
  - GEOG 620 Foundations in Human Geography
  - GEOG 625 Qualitative Methods in Geography
  - GEOG 640 Contextualizing Research in Earth System Science
- Any 1 other GEOG or GEMCC graduate level course (0.50 unit weight). Students may elect to take elective courses outside of GEOG or GEMCC with approval of the Graduate Officer.

**Proposed effective date:** Term: Spring Year: 2026

**Current [Graduate Studies Academic Calendar \(GSAC\)](#) page** (include the link to the web page where the changes are to be made):

<https://uwaterloo.ca/academic-calendar/graduate-studies/catalog#/programs/SkzaxyRCj2>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p><b>Admit term(s)</b></p> <ul style="list-style-type: none"> <li>• Fall</li> <li>• Winter</li> </ul> <p><b>Delivery mode</b></p> <ul style="list-style-type: none"> <li>• On-campus</li> </ul> <p><b>Registration option(s)</b></p> <ul style="list-style-type: none"> <li>• Full-time</li> <li>• Part-time</li> </ul> <p><b>Study option(s)</b></p> <ul style="list-style-type: none"> <li>• Master's Research Paper</li> <li>• Thesis</li> </ul> <p><b>Length of program</b></p> <ul style="list-style-type: none"> <li>• Thesis option: <ul style="list-style-type: none"> <li>○ Full-time: limit of six terms</li> <li>○ Part-time: limit of twelve terms</li> </ul> </li> <li>• Master's Research Paper option: <ul style="list-style-type: none"> <li>○ Full-time: limit of three terms</li> <li>○ Part-time: limit of six terms</li> </ul> </li> </ul> <p><b>Graduate research fields</b></p> <ul style="list-style-type: none"> <li>• Environmental and Resource Management</li> <li>• Environmental Science</li> <li>• Geomatics</li> <li>• Human Geography</li> </ul> <p><b>Admission requirements: Minimum requirements</b></p> <ul style="list-style-type: none"> <li>• An honours undergraduate degree or equivalent with at least a 75% average. Normally, the undergraduate degree will be in Geography, but applications are welcomed from superior students regardless of background. However, students must demonstrate that they have the necessary background to pursue graduate work in their field of specialization.</li> <li>• English language proficiency (ELP) (if applicable)</li> </ul> <p><b>Admission requirements: Application materials</b></p> <ul style="list-style-type: none"> <li>• Résumé</li> <li>• Supplementary information form</li> <li>• Transcript(s)</li> </ul> <p><b>Admission requirements: References</b></p> <ul style="list-style-type: none"> <li>• Number of references: 3</li> <li>• Type of references: academic references are required unless a professional reference is</li> </ul>	<p><b>Admit term(s)</b></p> <ul style="list-style-type: none"> <li>• Fall</li> <li>• Winter</li> </ul> <p><b>Delivery mode</b></p> <ul style="list-style-type: none"> <li>• On-campus</li> </ul> <p><b>Registration option(s)</b></p> <ul style="list-style-type: none"> <li>• Full-time</li> <li>• Part-time</li> </ul> <p><b>Study option(s)</b></p> <ul style="list-style-type: none"> <li>• Master's Research Paper</li> <li>• Thesis</li> <li>• <u>Coursework</u></li> </ul> <p><b>Length of program</b></p> <ul style="list-style-type: none"> <li>• Thesis option: <ul style="list-style-type: none"> <li>○ Full-time: limit of six terms</li> <li>○ Part-time: limit of twelve terms</li> </ul> </li> <li>• Master's Research Paper option: <ul style="list-style-type: none"> <li>○ Full-time: limit of three terms</li> <li>○ Part-time: limit of six terms</li> </ul> </li> <li>• <u>Coursework option:</u> <ul style="list-style-type: none"> <li>○ <u>Full-time: limit of three terms</u></li> <li>○ <u>Part-time: limit of six terms</u></li> </ul> </li> </ul> <p><b>Graduate research fields</b></p> <ul style="list-style-type: none"> <li>• Environmental and Resource Management</li> <li>• Environmental Science</li> <li>• Geomatics</li> <li>• Human Geography</li> </ul> <p><b><u>Graduate specializations</u></b></p> <ul style="list-style-type: none"> <li>• <u>Land-Use Change</u></li> <li>• <u>Tourism and Environmental Change</u></li> </ul> <p><b>Admission requirements: Minimum requirements</b></p> <ul style="list-style-type: none"> <li>• An honours undergraduate degree or equivalent with at least a 75% average. Normally, the undergraduate degree will be in Geography, but applications are welcomed from superior students regardless of background. However, students must demonstrate that they have the necessary background to pursue graduate work in their field of specialization.</li> <li>• English language proficiency (ELP) (if applicable)</li> </ul> <p><b>Admission requirements: Application materials</b></p>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>specified.</p> <p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete the course and milestone requirements associated with their chosen study option in addition to the Graduate Academic Integrity Module (Graduate AIM).</li> </ul> <p><b>Thesis option: Course requirements</b></p> <ul style="list-style-type: none"> <li>Complete all of the following <ul style="list-style-type: none"> <li>Complete all the following: <ul style="list-style-type: none"> <li>GEOG700A - Geographic Scholarship and Practice 1 - Master's (0.25)</li> <li>GEOG700B - Geographic Scholarship and Practice 2 - Master's (0.25)</li> </ul> </li> <li>Complete 1 of the following: <ul style="list-style-type: none"> <li>GEOG604 - Spatial Statistics (0.50)</li> <li>GEOG617 - Applied Statistics in Ecology and Environment (0.50)</li> <li>GEOG620 - Foundations in Human Geography (0.50)</li> <li>GEOG625 - Qualitative Methods in Geography (0.50)</li> <li>GEOG640 - Contextualizing Research in Earth System Science (0.50)</li> </ul> </li> <li>Any 2 other GEOG or GEMCC graduate level courses (0.50 unit weight per course) that complement the student's graduate research field. Students may elect to take an elective course outside of GEOG or GEMCC with approval of the Graduate Officer.</li> </ul> <p>Failure to obtain a final grade of at least 70% in each course will result in an automatic review of the student's status in the program, which may require that the student withdraw from the program.</p> <p>The coursework part of the program is designed to develop advanced understanding of issues relating to environmental studies, and also to provide students with training in additional methods/skills for their thesis research and its defence. Students will normally complete the 4 one-term</p> </li></ul>	<ul style="list-style-type: none"> <li>Résumé</li> <li>Supplementary information form</li> <li>Transcript(s)</li> </ul> <p><b>Admission requirements: References</b></p> <ul style="list-style-type: none"> <li>Number of references: 3</li> <li>Type of references: academic references are required unless a professional reference is specified.</li> </ul> <p><b>Degree requirements</b></p> <ul style="list-style-type: none"> <li>Students must complete the course and milestone requirements associated with their chosen study option in addition to the Graduate Academic Integrity Module (Graduate AIM).</li> </ul> <p><b>Thesis option: Course requirements</b></p> <ul style="list-style-type: none"> <li>Complete all of the following <ul style="list-style-type: none"> <li>Complete all the following: <ul style="list-style-type: none"> <li>GEOG700A - Geographic Scholarship and Practice 1 - Master's (0.25)</li> <li>GEOG700B - Geographic Scholarship and Practice 2 - Master's (0.25)</li> </ul> </li> <li>Complete 1 of the following: <ul style="list-style-type: none"> <li>GEOG604 - Spatial Statistics (0.50)</li> <li>GEOG617 - Applied Statistics in Ecology and Environment (0.50)</li> <li>GEOG620 - Foundations in Human Geography (0.50)</li> <li>GEOG625 - Qualitative Methods in Geography (0.50)</li> <li>GEOG640 - Contextualizing Research in Earth System Science (0.50)</li> </ul> </li> <li>Any 2 other GEOG or GEMCC graduate level courses (0.50 unit weight per course) that complement the student's graduate research field. Students may elect to take an elective course outside of GEOG or GEMCC with approval of the Graduate Officer.</li> </ul> <p>Failure to obtain a final grade of at least 70% in each course will result in an automatic review of the student's status in the program, which may require that the student withdraw from the program.</p> </li></ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>courses during their first year.</p> <p><b>Thesis option: Milestone requirements</b></p> <p><b>Master's Thesis Proposal</b></p> <ul style="list-style-type: none"> <li>• During the first year, students develop a thesis proposal that will be approved by their supervisor and committee, normally before the end of the first year.</li> </ul> <p><b>Master's Thesis</b></p> <ul style="list-style-type: none"> <li>• Upon approval of the thesis proposal, students will then proceed to the research and writing of the thesis. Normally, students should complete and defend the thesis within two years of starting the program.</li> </ul> <p><b>Other requirements</b></p> <ul style="list-style-type: none"> <li>• If a student wishes to switch from the Thesis option to the Master's Research Paper option or vice versa, the change must be approved by the Graduate Officer.</li> </ul> <p><b>Master's Research Paper option: Course requirements</b></p> <ul style="list-style-type: none"> <li>• Complete all of the following <ul style="list-style-type: none"> <li>○ Complete all the following: <ul style="list-style-type: none"> <li>▪ GEOG700A - Geographic Scholarship and Practice 1 - Master's (0.25)</li> <li>▪ GEOG700B - Geographic Scholarship and Practice 2 - Master's (0.25)</li> </ul> </li> <li>○ Complete 1 of the following: <ul style="list-style-type: none"> <li>▪ GEOG604 - Spatial Statistics (0.50)</li> <li>▪ GEOG617 - Applied Statistics in Ecology and Environment (0.50)</li> <li>▪ GEOG620 - Foundations in Human Geography (0.50)</li> <li>▪ GEOG625 - Qualitative Methods in Geography (0.50)</li> <li>▪ GEOG640 - Contextualizing Research in Earth System Science (0.50)</li> </ul> </li> <li>○ Any 4 other GEOG or GEMCC graduate level courses (0.50 unit weight per course) that complement the student's graduate research field. Students may elect to take elective courses outside of GEOG or GEMCC with approval of the Graduate Officer.</li> </ul> </li> </ul>	<p>The coursework part of the program is designed to develop advanced understanding of issues relating to environmental studies, and also to provide students with training in additional methods/skills for their thesis research and its defence. Students will normally complete the 4 one-term courses during their first year.</p> <p><b>Thesis option: Milestone requirements</b></p> <p><b>Master's Thesis Proposal</b></p> <ul style="list-style-type: none"> <li>• During the first year, students develop a thesis proposal that will be approved by their supervisor and committee, normally before the end of the first year.</li> </ul> <p><b>Master's Thesis</b></p> <ul style="list-style-type: none"> <li>• Upon approval of the thesis proposal, students will then proceed to the research and writing of the thesis. Normally, students should complete and defend the thesis within two years of starting the program.</li> </ul> <p><b>Other requirements</b></p> <ul style="list-style-type: none"> <li>• If a student wishes to switch from the Thesis option to the Master's Research Paper option or vice versa, <u>or to the coursework option</u>, the change must be approved by the Graduate Officer.</li> </ul> <p><b>Master's Research Paper option: Course requirements</b></p> <ul style="list-style-type: none"> <li>• Complete all of the following <ul style="list-style-type: none"> <li>○ Complete all the following: <ul style="list-style-type: none"> <li>▪ GEOG700A - Geographic Scholarship and Practice 1 - Master's (0.25)</li> <li>▪ GEOG700B - Geographic Scholarship and Practice 2 - Master's (0.25)</li> </ul> </li> <li>○ Complete 1 of the following: <ul style="list-style-type: none"> <li>▪ GEOG604 - Spatial Statistics (0.50)</li> <li>▪ GEOG617 - Applied Statistics in Ecology and Environment (0.50)</li> <li>▪ GEOG620 - Foundations in Human Geography (0.50)</li> <li>▪ GEOG625 - Qualitative Methods in Geography (0.50)</li> </ul> </li> </ul> </li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
<p>Failure to obtain a final grade of at least 70% in each course will result in an automatic review of the student's status in the program, which may require that the student withdraw from the program.</p> <p><b>Master's Research Paper option: Milestone requirements</b></p> <p><b>Master's Research Paper</b></p> <ul style="list-style-type: none"> <li>Each student will have a Supervisor and a Reader. The student will develop a research proposal for approval by their Supervisor, normally prior to the end of the first term. The research paper will normally be completed in the Spring (third) term. The paper should be approximately 12,000 words/50 pages in length.</li> </ul> <p><b>Other requirements</b></p> <ul style="list-style-type: none"> <li>If a student wishes to switch from the Thesis option to the Master's Research Paper option or vice versa, the change must be approved by the Graduate Officer.</li> </ul>	<ul style="list-style-type: none"> <li>GEOG640 - Contextualizing Research in Earth System Science (0.50)</li> <li>Any 4 other GEOG or GEMCC graduate level courses (0.50 unit weight per course) that complement the student's graduate research field. Students may elect to take elective courses outside of GEOG or GEMCC with approval of the Graduate Officer.</li> </ul> <p>Failure to obtain a final grade of at least 70% in each course will result in an automatic review of the student's status in the program, which may require that the student withdraw from the program.</p> <p><b>Master's Research Paper option: Milestone requirements</b></p> <p><b>Master's Research Paper</b></p> <ul style="list-style-type: none"> <li>Each student will have a Supervisor and a Reader. The student will develop a research proposal for approval by their Supervisor, normally prior to the end of the first term. The research paper will normally be completed in the Spring (third) term. The paper should be approximately 12,000 words/50 pages in length.</li> </ul> <p><b>Other requirements</b></p> <ul style="list-style-type: none"> <li>If a student wishes to switch from the Thesis option to the Master's Research Paper option or vice versa, <u>or to the Coursework option</u> the change must be approved by the Graduate Officer.</li> </ul> <p><b><u>Coursework option: Course requirements</u></b></p> <ul style="list-style-type: none"> <li><u>Students in the coursework option must select one of the following Graduate Specializations to complete the program:</u></li> <li><u>Land-Use Change</u></li> <li><u>Tourism and Environmental Change</u></li> <li><u>A Graduate Specialization is a University recognized credential that appears on the student's transcript but not on the diploma. It signifies successful completion of a defined set of courses that provide in-depth study in a specific area. A student will only obtain the Graduate Specialization on their transcript if they have completed the requirements</u></li> </ul>

Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	<p><u>associated with the Graduate Specialization.</u></p> <ul style="list-style-type: none"> <li>• <u>Graduate Specialization in Land-Use Change</u> <ul style="list-style-type: none"> <li>○ <u>Complete all the following:</u> <ul style="list-style-type: none"> <li>▪ <u>GEMCC630 - Land Use Change and the Carbon Cycle (0.50)</u></li> <li>▪ <u>GEOG700A - Geographic Scholarship and Practice 1 - Master's (0.25)</u></li> <li>▪ <u>GEOG700B - Geographic Scholarship and Practice 2 - Master's (0.25)</u></li> </ul> </li> <li>○ <u>Complete 1 of the following:</u> <ul style="list-style-type: none"> <li>▪ <u>GEMCC699 - Graduate Capstone Project (0.50)</u></li> <li>▪ <u>GEOG699 - Graduate Capstone Project (0.50)</u></li> <li>▪ <u>Another (0.50 unit weight) graduate-level project course as approved by the Graduate Officer</u></li> </ul> </li> <li>○ <u>Complete 3 of the following:</u> <ul style="list-style-type: none"> <li>▪ <u>GEMCC610 - Climate Prediction, Modeling and Scenarios (0.50)</u></li> <li>▪ <u>GEMCC622 - Climate Change, Natural Hazards and Disaster Risk Reduction (0.50)</u></li> <li>▪ <u>GEOG603 - Remote Sensing and Earth System Science (0.50)</u></li> <li>▪ <u>GEOG646 - Hydrology (0.50)</u></li> <li>▪ <u>GEOG654 - Applied Biogeochemistry (0.50)</u></li> <li>▪ <u>GEOG656 - Eutrophication (0.50)</u></li> <li>▪ <u>GEOG662 - Transforming Canadian Resource Management (0.50)</u></li> <li>▪ <u>GEOG666 - Ecosystem Approach to Park Planning (0.50)</u></li> </ul> </li> <li>○ <u>Complete 1 of the following:</u> <ul style="list-style-type: none"> <li>▪ <u>GEOG604 - Spatial Statistics (0.50)</u></li> <li>▪ <u>GEOG617 - Applied Statistics in Ecology and Environment (0.50)</u></li> <li>▪ <u>GEOG620 - Foundations in Human Geography (0.50)</u></li> <li>▪ <u>GEOG625 - Qualitative Methods in Geography (0.50)</u></li> </ul> </li> </ul> </li> </ul>

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Current Graduate Studies Academic Calendar content:	Proposed Graduate Studies Academic Calendar content:
	<p><u>REC641- Community Relations and Stakeholder Engagement (0.50)</u></p> <ul style="list-style-type: none"> <li>○ <u>Complete 1 of the following:</u> <ul style="list-style-type: none"> <li>▪ <u>GEOG604 - Spatial Statistics (0.50)</u></li> <li>▪ <u>GEOG617 - Applied Statistics in Ecology and Environment (0.50)</u></li> <li>▪ <u>GEOG620 - Foundations in Human Geography (0.50)</u></li> <li>▪ <u>GEOG625 - Qualitative Methods in Geography (0.50)</u></li> <li>▪ <u>GEOG640 - Contextualizing Research in Earth System Science (0.50)</u></li> </ul> </li> <li>• <u>Any 1 other GEOG or GEMCC graduate level courses (0.50 unit weight per course). Students may elect to take elective courses outside of GEOG or GEMCC with approval of the Graduate Officer.</u></li> <li>• <u>Failure to obtain a final grade of at least 70% in each course will result in an automatic review of the student's status in the program, which may require that the student withdraw from the program.</u></li> </ul>

**How will students currently registered in the program be impacted by these changes?**

*As this provides an alternate pathway to complete the MES degree, currently registered students will not be directly impacted. Current students that wish to transfer to the coursework option could do so with approval of the Graduate Officer.*

**Reviewed by GSPA** (for GSPA use only)  date (mm/dd/yy): 10/07/25

**Department/School approval date** (mm/dd/yy): 10/29/25

**Graduate Faculty Sub-Committee approval date** (mm/dd/yy): 10/31/25

**Faculty Council approval date** (mm/dd/yy):

**Senate Graduate Council (SGC) approval date** (mm/dd/yy):

Date 2026/01/12

Show Empty Fields

## Meeting Information

Agenda Page TitleSGC - Regular Agenda - GSPA - January 21, 2026

**Career Level**

Undergraduate, Graduate,

**Faculty/Unit**GSPA

**Date**2026-01-21

**Summary**

On behalf of all faculties, bringing forward a collection of regulation submissions for inclusion in the Spring 2026 Graduate Studies Academic Calendar (see below).

**Other Business**

An update to the Final Examination Regulations and Guidelines document (last revised and approved by Senate in 2015).

- See attached PDF.
- Effective date = Senate approval date; will be in use for the winter 2026 Final Examination Period.
- Also being sent to SUC for approval.

An official document, which will be available on the Registrar Resources website (authenticated for employees only), outlining final examination regulations, guidelines, and operational matters for instructors, proctors, and Presiding Officers. A previous iteration, last revised and approved by Senate in 2015 (Final Exams and Related Matters), was outdated, and did not include all of the existing practices that were housed in other manuals. This updated document incorporates all the information final examination personnel need to know, from how to determine if a final examination is needed, to exam day processes, and everything in between. Consultation with faculty associate deans - undergraduate and graduate - was undertaken.

**Attachment(s)**

- [Final Examination Regulations and Guidelines - December 2025 - for Senate meetings.pdf](#)

## Course Proposals

**Courses: Retire** No proposals have been added.

**Courses: New** No proposals have been added.

**Courses: Changes** No proposals have been added.

## Programs & Plans Proposals

**Programs & Plans: Retire** No proposals have been added.

**Programs & Plans: Major Modifications** No proposals have been added.

**Programs & Plans: Minor Modifications** No proposals have been added.

## Regulations Proposals

### Regulations Proposal Details

**New:**

- 1. Graduate Course Assessments: Tests and Final Examinations: New regulation for the Graduate Studies Academic Calendar covering existing practice.**
- 2. Graduate Course Assessments: Scheduling: New regulation for the Graduate Studies Academic Calendar covering existing practice.**

**Regulations: Retire** No proposals have been added.

**Regulations: New**

Code	Title	Type	Workflow Step
<a href="#">13.2.1 Graduate Course Assessments: Tests and Final Examinations</a>	<b>13.2.1 Graduate Course Assessments: Tests and Final Examinations</b>	<b>Policies</b>	<b>SGC, Senate Graduate Council (SGC)</b>
<a href="#">13.2.2 Graduate Course Assessments: Scheduling</a>	<b>13.2.2 Graduate Course Assessments: Scheduling</b>	<b>Policies</b>	<b>SGC, Senate Graduate Council (SGC)</b>

**Regulations: Changes** No proposals have been added.

# 13.2.1 Graduate Course Assessments: Tests and Final Examinations - 13.2.1 Graduate Course Assessments: Tests and Final Examinations

[Top](#)

## Effective Date & Career

**Career**  
Graduate,

**Effective Term and Year**  
Spring 2026

## Proposal Details

**Proposal Type**  
New,

### Rationale and Background

**Adding a Graduate Course Assessments: Tests and Final Examinations section to the regulations.**

**Rationale:**

- Aligns graduate assessment practices with undergraduate standards for consistency.
- Provides clear guidance for emergency scenarios and accommodations.
- Addresses operational needs for online and external exam administration.

### **Key Components:**

#### **Held-With Courses**

- Undergraduate and graduate courses may be taught together (“held-with”).
- Scheduling and administration of tests/exams follow undergraduate regulations; grading remains under graduate regulations.

#### **Final Examination Period**

- Occurs after the formal lecture period; dates published in the Important Dates site.
- Exams normally  $\leq 2.5$  hours; exceptions for some graduate exams.
- No additional assignments during the exam period for courses with final exams.
- Courses without exams may have equivalent assessments due during this period.

#### **Scheduling & Availability**

- Exam schedule posted by the Office of the Registrar after the Add Period.
- Students must be available any day of the exam period, including emergency days.
- Instructors must attend their exams or appoint qualified substitutes.

#### **Online & External Exams**

- Students with any in-person exams must write them on campus.
- Students with no on-campus courses may write externally:
  - Must arrange and pay for proctoring.
  - Must meet deadlines and follow Access Ability accommodation procedures.

#### **Emergency Rescheduling**

- Decisions made by the President (or delegate) with Registrar.
- Rescheduled exams occur on the next available day, including Sundays.
- Instructors may reschedule earlier by mutual agreement, but official alternative dates remain available.

#### **Rules for Test & Exam Conduct**

- Eligibility: Only enrolled students may write.
- ID: Student ID required; alternatives allowed if approved.
- Permitted Items: Writing tools, approved calculators, electronics off and stored.
- Dress: Hats/hoods removed (except religious headgear).
- Breaks: Supervised only; pockets checked.
- End of Session: Cease writing when instructed; remain seated until dismissed.
- Violations: Procedures for suspected misconduct include evidence collection and reporting.

#### **Additional Exam Rules**

- First Hour: Students must stay for at least one hour; late arrivals may be barred.
- Food & Drink: Only water in clear bottles allowed; nutrition breaks require proctor supervision.
- Illness: Notify proctor and instructor; documentation required within 48 hours.
- Irregularities: Covers emergencies (evacuation, outages, etc.); time extensions capped at 20 minutes.

## **General Regulation Information**

### **Type of Regulation**

University-wide,

### **Regulation Grouping**

13. Student’s status and academic progression

### **Regulation Page Name**

13.2.1 Graduate Course Assessments: Tests and Final Examinations

## Regulation Details

### Regulation Details

#### Held-with courses

Held-with courses occur when two different courses are taught in the same classroom by the same instructor at the same time. Each is listed as "held with" the other on the Schedule of Classes. Often occurs when offering similar graduate and undergraduate content, or similar undergraduate content (e.g., topics courses).

In cases where graduate and undergraduate courses are held with one another, for the purposes of scheduling and examination or test administration, the undergraduate regulations will apply to both sections.

#### The Final Examination Period

Final examinations are scheduled during a period of days following the Formal Lecture Period, defined by the Important Dates site. Final examinations normally cover all or a substantial portion of the course material and normally will be no longer than 2.5 hours in length.

Students require sufficient opportunity to prepare for the final assessment of their courses. Normally, the Final Examination Period is reserved for preparation and sitting for the final examinations. Courses with final examinations may not have other course assignments due during the Final Examination Period. Courses without a final examination may have an assignment or final assessment equivalent in scope and value to a final examination due during the Final Examination Period.

#### The Final Examination Schedule

The final examination schedule is prepared by the Office of the Registrar and made available on the Final Examination Schedule website on or around the second Friday after the undergraduate course Add Period ends.

#### Expectations of Availability

Students are expected to be available to write their final examination(s), which could occur on any day during the Final Examination Period, including the scheduled emergency days (in case of inclement weather or other emergency events).

Instructors are expected to be available for reasonable consultation (office hours, online discussion boards, etc.) with students from the end of lectures until the time of their final examinations. When instructors cannot be available at the times they set, they will delegate this responsibility to an appropriate substitute. Instructors are required to attend their own final examinations, including those for online courses. If this is not possible, the Department Chair or Associate Dean must appoint an alternate who is familiar with the subject of the final examination.

#### Online Course Examinations

##### Writing On Campus

Students who are enrolled in both online and in-person final examinations are required to write all in-person final examinations at the University of Waterloo campus, which will be scheduled and arranged by the Office of the Registrar.

##### Writing Externally

Students who are not enrolled in any on-campus courses in a term are eligible to write their final examination(s) externally that term. These remote students must complete all required final examination arrangement steps, by the specified deadline, in order to be approved for an external examination as outlined on the Final Examinations page of The Centre website.

Students are responsible for contacting the testing centre/proctor and booking a day and time to write their final examination(s).

Students selecting to write externally from Waterloo are required to cover any expenses incurred, including any charges to cancel or reschedule their final examination(s). These fees will not be reimbursed by the University.

Students who are registered with Access Ability Services should discuss their academic accommodation needs with the proctor while making the external final examination arrangements. If the proctor requires more information from the University, students must contact Access Ability Services.

#### Emergency Rescheduling of Final Examinations

In the event of extreme weather conditions or any other general emergency which occurs during the Final Examination Period, the President, or delegate, will decide, in consultation with the Registrar, or delegate, whether to proceed with or to postpone final examinations.

If the decision is made to proceed with the final examination session(s) as scheduled, the Office of the Registrar is responsible for the conduct of all centrally-administered final examinations; individuals responsible for instructor-administered final examinations scheduled in faculty or departmental locations will follow procedures determined by the Dean of their faculty for handling such final examinations in emergency situations.

If the decision is made to postpone the final examination(s), the postponement will apply to all final examinations scheduled for a particular day or part thereof, regardless of writing location. Rescheduled final examinations will be held at the same time and location as originally scheduled on the next available day, including Sunday, on which final examinations have not been scheduled. Instructors are permitted to reschedule their final examination for an earlier date by mutual agreement of the

instructor and the students in the class. If this occurs, students must be given the option of writing on the official alternative date.

## **Rules for Test Conduct**

### **Eligibility**

Only students enrolled in a course are eligible to sit for a test; writing a test when not enrolled is a violation of test regulations, unless prior instructor approval has been obtained.

### **Identification**

Students must present their University of Waterloo Student ID card at all tests. If a student does not have this card, the instructor or proctor may accept another form of photo identification. If ID acceptable to the instructor or proctor is not provided, the student must complete an Interim Identification Form (IIF) and sign each test booklet and/or answer card.

### **Permitted Items**

Students must bring only essential items for use in the test, such as writing implements, approved calculators (if permitted), and their identification. All electronics, including cell phones, smartwatches, and Bluetooth enabled devices (e.g., earbuds), must be turned off and stored away, out of reach of students, prior to the start of the test.

All hats and hoods, with the exception of religious headgear, must be removed and/or placed under the desk prior to the start of the test.

### **Late Arrivals**

For students who arrive late, there shall be no extension of time.

### **Breaks**

Students may, with the permission of the instructor or proctor, leave the examination test room briefly, only if accompanied by an assigned proctor. During a test, it is a violation of test regulations to take electronic devices, capable of receiving, sending, recording, and/or storing information, in and/or out of the test room. Students will be asked to reveal the contents of their pockets before they are permitted to leave the test room for supervised breaks.

### **End of the Session**

Ten minutes before the conclusion of the test session, the instructor or proctor shall announce the time remaining. Students are not permitted to leave the test room after this time, until all papers/test booklets have been collected. Students must remain seated until dismissed by the instructor or proctor.

At the conclusion of the test, all students shall cease writing and proctors shall collect the test materials. Failure to cease writing at this time is considered a violation of test regulations.

### **Violation of Rules and/or Policy**

If a student provides or obtains assistance from another student, or accesses unauthorized aids during a test, they will be liable to disciplinary action.

If an instructor, proctor, or presiding officer – a designated person responsible for overseeing the test – has reasonable grounds to believe that a violation of academic regulations has occurred, they shall collect all of the evidence available. They will have the authority regarding students to:

- Remove any materials not authorized for use in the test and secure them until the student has completed and submitted the test materials, as required.
- Require students to relocate so that the presiding officer or proctor can more easily monitor them.
- Ask students to reveal "evidence" where the presiding officer or proctor believes that students have hidden it on their person.  
**Note:** If students refuse, under no circumstances should the alleged offenders be touched.
- Remove examination materials and replace them with new ones.

In all cases, students will be allowed to finish writing the test. As soon as possible following the conclusion of the test, the presiding officer or proctor will: make a note of the time and details (e.g., refusal to co-operate); explain to alleged offenders that the status of their paper is in question; identify the paper and set it aside; inform the course instructor of the circumstances; and submit all of the evidence available. If the instructor is not available, the presiding officer or proctor will inform the student's appropriate Associate Dean.

### **Additional Rules for Final Examinations**

#### **The First Hour**

Once a final examination session has begun, all students must remain for the first hour. Students who arrive more than one hour late for a final examination may be barred (at the discretion of the instructor or delegate) from writing the final examination if any students have submitted their final examination and left the final examination room. If a student is allowed to write the final examination, the proctor shall mark the time of entry clearly on all of their final examination booklets.

#### **Food and Drink Consumption**

Students are prohibited from consuming food and drinks (with the exception of water in a clear bottle with no label) during their final examinations. Students can make arrangements for a short nutrition break outside the final examination room, which will be supervised by a proctor.

Any students for whom a single short nutrition break will not be sufficient must register for accommodation with Access Ability Services and submit appropriate documentation from a recognized professional at least three weeks before the start of the Final Examination Period.

### **Illness During a Final Examination**

Students who become ill during the writing of a final examination and are unable to continue should ensure, before leaving the final examination room, that the proctor in charge is notified of the situation. In addition, students must notify their course instructor and supply appropriate medical accommodation documentation within 48 hours after the partially completed final examination.

If students complete a final examination, even though they are ill, the grade obtained in the course will normally stand. Students may seek exception to academic regulations on the grounds of illness. These requests must be accompanied by appropriate and timely documentation. The academic unit or instructor of these students may take the illness into consideration, and possibly alter academic standing, but the grade will not normally be altered.

### **Final Examination Sessions Affected by Irregularities**

In rare cases, unforeseen events can occur during a final examination session such as:

- emergency situation resulting in evacuation;
- power outages;
- protests/disturbances;
- defective final examination papers;
- absent or delayed instructors and/or proctors;
- instructor or proctor must leave the final examination session due to sudden illness or family emergency.

In these cases, the Office of the Registrar, in consultation with the instructor (or designate), will determine whether the final examination will proceed or whether the final examination will be terminated and papers collected. Decisions and the next steps will be communicated to students as soon as possible. Students should not leave the final examination venue (or evacuation location) unless instructed to do so.

The decision to extend the writing time for an entire final examination session due to irregularities rests with the on-duty presiding officer in the Physical Activities Complex (PAC) or instructor in the other writing locations. This time extension will not exceed 20 minutes and will be announced.

## **Workflow Information**

### **Workflow Path**

Committee approvals,

# **13.2.2 Graduate Course Assessments: Scheduling - 13.2.2 Graduate Course Assessments: Scheduling**

[Top](#)

## **Effective Date & Career**

### **Career**

Graduate,

### **Effective Term and Year**

Spring 2026

## **Proposal Details**

### **Proposal Type**

New,

### **Rationale and Background**

**[Adding a Graduate Course Assessments: Scheduling section to the regulations.](#)**

## **Rationale:**

This section outlines proposed additions to the Graduate Studies Academic Calendar, specifically section 13.2.2 Graduate Course Assessments: Scheduling. It sets parameters for scheduling assessments in graduate courses.

## **Key Components:**

### **Scheduled Pauses in the Academic Term**

- Includes study days, reading weeks, and public holidays.
- No compulsory academic events (classes, labs, tutorials, exams) or assignment deadlines during these pauses.
- Applies to both undergraduate and graduate students.

### **Study Days and Reading Weeks**

- Study Days: 1–2 days each term between the end of lectures and start of exams.
- Reading Weeks: Occur in fall and winter terms, aligned with Thanksgiving and Family Day holidays.

### **Formal Lecture Period**

- Teaching day runs from 8:30 a.m. to 10:00 p.m., Monday–Friday. Exceptions noted for programs with delivery outside of this time.
- Assignments and tests can be scheduled anytime during this period.
- Major term tests (worth >25% of final grade) cannot be held in the last five teaching days unless approved by the unit head/program director and Associate Dean (Graduate Studies).  
Faculty of Science Exception
- Laboratory courses may hold final exams during the latter part of the lecture period due to facility needs.

### **Guidelines for Scheduling Tests**

- Preferably during regular class times.
- If outside normal class time, conflicts must be resolved with alternative arrangements.
- Test dates must be in the course outline; changes only in extreme circumstances with unanimous class consent.
- Material for tests should be introduced at least two working days before the test.
- Tests normally scheduled Monday–Friday, 8:30 a.m.–10:00 p.m.
- Exceptions require Associate Dean approval and must be announced in the first week of classes.
- Avoid scheduling during co-op interviews; attendance at interviews is not a valid excuse for missing a test.

## **General Regulation Information**

### **Type of Regulation**

University-wide,

### **Regulation Grouping**

13. Student's status and academic progression

### **Regulation Page Name**

13.2.2 Graduate Course Assessments: Scheduling

## **Regulation Details**

### **Regulation Details**

#### **Scheduled Pauses in the Academic Term**

Scheduled pauses are study days, reading weeks, and public holidays recognized by the University.

Instructors are not permitted to administer, and students are not required to sit for final examinations, tests, or lectures during a scheduled pause. There are to be no compulsory academic events (e.g., classes, labs, tutorials, seminars, final examinations) during a scheduled pause. Deadlines for assignments are not permitted during a scheduled pause.

While exceptions may exist (e.g., field trips) the scheduled pauses apply to both graduate and undergraduate students.

### **Study Days and Reading Weeks**

Study days and reading weeks are designated periods where normal class schedules and academic requirements are suspended for a specified period of time. The dates are published in the Important Dates & Deadlines.

Student services such as student advising support, Health Services, Counselling Services, Library Services and Campus Housing continue to provide service.

### **Study Days**

There are one or two study days each term. These occur between the end of the Formal Lecture Period and the beginning of the Final Examination Period. No classes are to be held during study days, except where classes are rescheduled as the result of a campus-wide emergency closure.

### **Reading Week**

Reading weeks occur in the fall and winter terms; they start on the Saturday before the public holidays of Thanksgiving Day and Family Day and end on the following Sunday.

### **The Formal Lecture Period**

Each term, the formal period during which lectures take place is provided by the site describing Important Dates & Deadlines (classes begin to classes end).

The normal teaching day at the University of Waterloo extends from 8:30 a.m. to 10:00 p.m., Monday to Friday.

Student assignments and tests – assessments of knowledge, skills, and/or judgment – may be scheduled by instructors at any time throughout the Formal Lecture Period, with the exception that major term tests (those that account for more than 25% of the final course grade) may not be held in the last five teaching days of this period. Exceptions must be approved in advance by the instructor's unit head and/or program director, and their Associate Dean (Graduate Studies).

### **Faculty of Science Laboratory Courses**

Faculty of Science is permitted to hold final examinations during the latter part of the Formal Lecture Period in laboratory courses which may require laboratory facilities.

### **Guidelines on Scheduling Tests During the Formal Lecture Period**

Instructors are encouraged to hold tests during the regularly scheduled class times for their courses. In cases when an instructor holds a test outside of the normal course meetings that creates a legitimate conflict for students, the instructor must provide an alternative, mutually agreeable time for students to write the test.

The date and time of all tests must be included in the course outline. Subsequently changes to this time and date will only occur in rare circumstances and with unanimous consent from the class.

Course material assessed on a test should be introduced sufficiently in advance of the test date to allow students reasonable time to seek clarification or greater understanding of concepts. Normally, this period will be a minimum of two working days.

Tests are held during the Formal Lecture Period from 8:30 a.m. to 10:00 p.m., Monday through Friday, inclusive. This would exclude programs that offer courses on Saturdays and Sundays as identified within their delivery mode.

Tests are not normally permitted outside of these parameters. Any tests scheduled outside of the parameters, must be approved by the appropriate Associate Dean, scheduled using test slots, and announced to students during the first week of classes via published course outlines.

Instructors are encouraged to avoid scheduling tests during the time when co-operative work-term employment interviews are scheduled. Whenever possible, students are encouraged to avoid scheduling co-operative work-term employment interviews that conflict with tests. Attendance at co-operative work-term employment interviews is not considered to be a valid reason to miss a test.

## **Workflow Information**

### **Workflow Path**

Committee approvals,



# Final Examination Regulations and Guidelines

REVISED FEBRUARY 2026  
OFFICE OF THE REGISTRAR

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# Glossary of terms

## **Examination Personnel**

Encompassing term that refers to all presiding officers, instructors, and proctors who are present at final examinations. The personnel are responsible for maintaining examination integrity, answering student questions, and assisting with operational duties.

## **Examination Representative**

Designated academic unit staff member responsible for final examination processes. Responsibilities include disseminating information to instructors, ensuring all required information is provided to the Office of the Registrar (RO) on time, answering examination questions that arise from students/staff in their academic unit, and attending training sessions hosted by the Office of the Registrar.

## **Final Examination**

A test that is scheduled during the University's Final Examination Period.

## **Final Examination Materials**

All physical or digital components provided to students for the purpose of completing a final examination and collected upon its completion. This includes, but is not limited to:

- Question booklets
- Answer booklets
- Combined question-and-answer booklets
- Reference sheets
- Multiple-choice response sheets (e.g., bubble sheets)

## **Invigilation**

The act of supervising a final examination to ensure fairness, prevent cheating, and maintain proper conduct. Specific duties include:

- Patrol assigned area(s) by quietly moving regularly through the aisles and walkways, observing students as they write.
- Take attendance (if attendance sheets are being used).
- Check WatCard ID to confirm student identity.
  - If the student does not have their WatCard, ask for another form of government-issued photo ID.
  - If the student does not have any ID, require them to sign the Interim Identification Form (IIF).

### **Presiding Officer**

Office of the Registrar (RO) employees who hold the highest authority in the final examination session and oversee operations for the final examination session. Presiding Officers are scheduled for regular final examination sessions in the Physical Activities Complex (PAC) as well as final examination make-up sessions. Presiding Officers also assist the members of the RO with distribution of final examination materials in the Mathematics & Computing (MC) building after hours and on weekends.

### **Pre-Slotting**

The practice of scheduling final examinations for larger classes into specific final examination time sessions first, to avoid as many time conflicts as possible and accommodate specific (and appropriate) requests from academic units/instructors.

### **Primary Examination Version**

The first, authentic digital version of the final examination from which individual final examinations are printed.

### **Proctor**

Individual appointed by the instructor and/or academic unit to attend a final examination session and assist with invigilation and operational duties.

### **Remote Student**

Students who are only enrolled in online courses for a specific term.

## **Scheduling and administration**

### **Assessment options**

Each term, in consultation with the Office of the Registrar (RO), each academic unit will notify the RO, by the predetermined deadline as communicated by email, for each scheduled course which of the following options is preferred for the scheduling and administration of final examinations.

**Note:** In the examination management system, some courses have elected to indicate “no final examination permanently”, and in these instances, instructors do not have to communicate termly a preferred scheduling and administration option as listed below.

## Option 1: No Final Assessment During the Final Examination Period

No assessments or activities are scheduled during the Final Examination Period.

- Students have no further commitments after the last day of classes.

## Option 2: Final Assessment

An assessment, that is not a final examination, is due during the Final Examination Period. E.g., an essay, a project.

- No final examination is allowed.
- After submission, students have no further commitments.
- The instructor must accommodate [conflicts](#) with RO-scheduled final examinations, which take precedence.

## Option 3: In-Person Final Examination

An in-person final examination is scheduled during the Final Examination Period.

### *A) Scheduled and administered by the Office of the Registrar (RO)*

- The RO schedules a conflict-free session in appropriate space.
- The RO prints final examination materials; printing costs are covered by the RO.
- The instructor or academic unit is responsible for invigilation.
- The RO co-ordinates delivery of final examination materials to the Physical Activities Complex (PAC).
  - For final examinations scheduled outside the PAC, see [Instructor Responsibilities](#).
- The RO manages logistics for remote students writing at external testing locations (online courses only).

### *B) Scheduled by RO and administered by academic unit/instructor (on-campus courses only)*

- The RO schedules a conflict-free session in academic unit-specified space.
- If no academic unit space is specified, the RO books a suitable RO location outside the PAC.
- The academic unit/instructor manages all printing and logistical arrangements.

### *C) Scheduled and administered by academic unit/Instructor (on-campus courses only)*

- The academic unit determines the date, time, and location, and provides these details to the RO.
- The academic unit/instructor manages all printing and logistical arrangements.

- The academic unit/instructor must accommodate [conflicts](#) with RO-scheduled final examinations, which take precedence.

### Option 4: Online Final Examination

For online courses only. The final examination is scheduled by the RO and administered by the instructor.

- The RO schedules one conflict-free start time for the final examination.
- No physical space needs to be booked and no printing is required.
- The instructor or academic unit is responsible for invigilation.

### Assessment options summary table

Assessment Type	Who Schedules	Who Administers	Location / Format	Printing & Costs	Key Notes
<b>No Final Assessment</b>	N/A	N/A	N/A	N/A	Students have no commitments after the last day of classes.
<b>Final Assessment</b>	Instructor	Instructor	Take-home	N/A	Not a final examination; due date must fall during the Final Examination Period; conflicts with RO-scheduled final examinations must be accommodated.
<b>In-Person Final Examination</b> <i>(A) - Scheduled &amp; Administered by RO</i>	RO	RO (scheduling) / Instructor (invigilation)	RO-booked space	Covered by RO	RO handles delivery and logistics of materials (including remote students, for online courses only).
<b>In-Person Final Examination</b> <i>(B) - Scheduled by RO, Administered by Academic unit/ Instructor</i>	RO	Academic unit / Instructor	Academic unit space or RO-booked space	Academic unit covers costs	RO ensures conflict-free scheduling; academic unit manages logistics and printing.
<b>In-Person Final Examination</b> <i>(C) - Scheduled &amp; Administered by Academic unit/ Instructor</i>	Academic unit	Academic unit / Instructor	Academic unit-booked space	Academic unit covers costs	Academic unit determines date/time; conflicts with RO-scheduled final examinations must be accommodated.
<b>Online Final Examination</b>	RO	Instructor	Online	N/A	One conflict-free start time is determined by the RO.

## Final examination scheduling

### Final examination scheduling principles

- a) No student having two final examinations in a row;
- b) No student writing in the last session on one day and the first session the next day;
- c) No student writing more than two final examinations on the same day.

Where an instructor schedules their own final examination or final assessment, the instructor must respect the same final examination scheduling principles and assumes responsibility for solving all scheduling conflicts that may result. The Registrar (or their designate) will advocate on behalf of students who encounter problems that are not solved respecting the final examination scheduling principles.

### Pre-slotting

Academic units can pre-slot final examinations for courses with enrolment greater or equal to 100 students. The final examination scheduling principles will be used when pre-slotting and every effort will be made to accommodate these requests.

Large-scale scheduling criteria requested by an academic unit that is in violation of the final examination scheduling principles will not normally be accommodated. The final examination scheduling process will run using the final examination scheduling principles after the pre-slotting exercise is complete.

### Final examination schedule

Each academic term, a final examination schedule is prepared by the Office of the Registrar and published on the [Final Examination Schedule website](#) on or around the second Friday following the end of the course Add Period.

After the publication of the schedule, adjusting final examination dates or times, or withdrawing final examinations is not normally permitted. Exceptions will be considered by the RO based on specific circumstances.

## Online course final examinations

### Writing on-campus

All students are automatically scheduled to write in-person final examinations at University of Waterloo main campus. Remote students, who are only enrolled in online courses, are eligible to apply to write final examinations externally. Students who are enrolled in both online and on-campus courses are required to write all in-person final examinations at

main campus, including those for online courses, which will be scheduled by the Office of the Registrar at no cost to the student.

## Writing externally

Remote students are eligible to write their in-person final examinations externally with a testing centre/proctor. Remote students must complete all required final examination arrangement steps, by the specified deadline, in order to be approved for an external examination as outlined on the [Final Examinations page](#) of The Centre website.

It is the student's responsibility to contact the testing centre/proctor and book a day and time to write their final examination(s).

Students selecting to write externally from Waterloo are required to cover any expenses incurred, including any charges to cancel or reschedule their final examination(s). All fees associated with writing a final examination externally are the responsibility of the student and will not be reimbursed by the University.

Students who are registered with AccessAbility Services should discuss their academic accommodation needs with the testing centre/proctor while making the external final examination arrangements and ensure their needs can be accommodated. If student needs cannot be accommodated, an alternative testing centre/proctor may be required. If the testing centre/proctor requires more information from the University, students must contact AccessAbility Services at [aas-exam@uwaterloo.ca](mailto:aas-exam@uwaterloo.ca).

## Submission of final examinations for printing

For **final examinations that are scheduled and administered by the Office of the Registrar (RO)**, the primary version of the final examination must be uploaded to the examination management software by the term's specified deadline (generally three weeks before the final examination session for online courses and one week before a course's final examination date) and according to the formatting guidelines provided by the RO. After the primary version of the final examination has been uploaded to the examination management software, any corrections or alterations that must be made may result in the need for a re-print. Costs associated with a re-print will be billed to the academic unit. It is recommended to consult with the RO before proceeding with a correction.

The RO assumes no responsibility for the printing of final examinations not submitted by the term's specified deadline. When the submission of the primary version of the final examination is late, the instructor is responsible for arranging printing and security of the final examinations, as well as delivering them and any related final examination materials

to the appropriate final examination location at least 45 minutes prior to the beginning of the scheduled final examination session.

The printing of final examinations for **final examinations administered by the academic unit or instructor** is the responsibility of the instructor. W Print will make every effort to print final examinations within three business days of receipt. Instructors requiring final examinations to be printed in less than three business days may need to find an alternate means of printing.

## Alternate version of the final examination

The University recommends instructors prepare at least one alternate version of their final examination. This additional version does not need to be uploaded to the examination management software; it is intended for the instructor's use. Having an alternate version provides several benefits:

- **Facilitates make-up final examinations:** An alternate version can be used if one or more students miss the scheduled final examination session, or if an emergency interrupts the original session.
- **Supports external final examination writing:** An alternate version is useful when students need to write externally for an online course.

If multiple primary versions of the final examination are uploaded to the examination management software, the system will randomly assign versions to students. This process helps reduce the risk of academic integrity violations.

## Proctor co-ordination

Each academic unit will receive a form listing their in-person final examinations on which they must report the names of the instructor(s) and proctors who will attend each final examination session. The completed form must be returned to the Office of the Registrar (RO) by the term's specified deadline.

One proctor is required for every 50 students. The minimum number of proctors required for any final examination location is two people (i.e., 1 to 100 students = 2 proctors, 101 to 150 = 3 proctors, 151 to 200 students = 4 proctors, etc.). This allows coverage should the student need to use the washroom, or an emergency occurs during the final examination session. Exceptions to the number of proctors required may be granted for graduate courses by the associate dean for the faculty owning the course.

# Final examination session protocols

## Attendance expectations

### Students

Students are expected to be available to write their final examinations at any time during the Final Examination Period, including the scheduled emergency days (for use in case of inclement weather or other emergency events). It is important that students do not make any travel, employment, or other commitments that restrict their availability during the Final Examination Period.

### Instructors

Instructors are required to attend their own in-person final examinations, including those for online courses. If this is not possible, the academic unit head or designate must appoint an alternate who is familiar with the subject of the final examination.

## Student preparation for final examination session

- **Identification is required:** Students must present their University of Waterloo Student ID card (i.e., WatCard) at final examinations. If students do not present this card, the instructor or proctor may accept another form of photo identification. If ID acceptable to the instructor or proctor is not provided, students must complete an Interim Identification Form (IIF) and sign each final examination booklet and/or answer card.
- **Permitted items:** Students are told to bring only essential items for the final examination, such as writing implements, instructor approved calculators (if permitted), and their ID. They should leave unnecessary bags, backpacks, and personal items at home. All electronics, including but not limited to cell phones, smartwatches, and other Bluetooth-enabled devices (e.g., earbuds), must be turned off and stored away, out of their reach, before the final examination begins.
  - Proctors may request to examine eyeglasses.
  - Students are informed that cell phones are not allowed to be on their person and that they will be asked to show the inside of all of their pockets before they are permitted to leave the final examination location for supervised breaks.
  - All hats, toques, and hoods, except for religious headgear, must be removed and/or placed under the desk prior to the start of the final examination.

- If a student is wearing a brimmed baseball cap and states it is for religious purposes, the student should be asked to turn the hat around so that the brim is at the back.
- **Food and drink:** Food and drinks are prohibited, except for water in a clear, label-free bottle. All other water bottles must be placed under the desk and students should be informed that they must raise their hand to request proctor supervision to retrieve and drink from a water bottle that is under the desk. Students can make arrangements for a short nutrition break supervised by a proctor outside the final examination location during the final examination. If a single short break is not enough, students must register their needs with AccessAbility Services at least three weeks in advance of the final examination date.

## Examination personnel responsibilities

### Presiding Officer responsibilities

#### *Final examinations written in the Physical Activities Complex (PAC) and make-up sessions*

The Office of the Registrar (RO) will appoint two Presiding Officers to oversee final examination sessions that are held in the Physical Activities Complex (PAC) during the Final Examination Period and for final examination make-up sessions that are held during and after the Final Examination Period offered by the RO.

The Presiding Officers hold the highest authority during the final examination session and are responsible for, among other duties, the following:

- First to arrive in the PAC (more than 45 minutes prior to the start of the final examination session), ensure room is set up, and prepare materials for distribution.
- Scan student WatCards using WatCard readers.
- Distribute final examination materials to instructors at the front of the room (if the final examination is administered by the Office of the Registrar).
- Make final examination announcements.
- Ensure adherence to final examination policies and academic regulations.
- Handle escalated student situations.
- Handle emergencies (e.g., building alarms).
- Be familiar with final examination regulations, processes, and policies and advise instructors/proctors accordingly.

### Instructor responsibilities

#### *Final examinations written in the Physical Activities Complex (PAC)*

- Arrive at least 45 minutes before the final examination session begins.

- Provide proof of identification to Presiding Officers and 1) obtain final examination materials if final examinations are administered by the Office of the Registrar (RO), or 2) bring final examinations if not printed through the RO.
- Ensure all final examination materials are distributed on desks 15 minutes prior to the start of the final examination session.
- Answer student questions.
- [Invigilate](#).
- Collect completed final examination materials and choose one of the following methods for processing:
  - Drop off final examinations to W Print for scanning (if applicable).
    - Notify W Print if the desire is to pick up the hard copies after scanning is complete.
  - Take hard copy final examinations for grading.
    - Ensure any hard copies are stored in a secure location according to the [University Records Management guidelines for examinations](#).
- Collect unused final examination materials from desks.
  - Dispose of them securely by shredding what will not be used again.

#### *Final examinations written elsewhere on campus*

- Bring final examinations to location:
  - If final examinations are administered by the Office of the Registrar (RO), pick up printed final examination materials from the specified RO location between 8:30 a.m. and 4 p.m. on the date of the final examination and take them to assigned location(s); proof of identification is required. **Note:** Early pick up may be possible by emailing [examinations@uwaterloo.ca](mailto:examinations@uwaterloo.ca) to make arrangements.
  - If not printed through the RO, bring final examinations to the assigned location(s). **Note:** W Print does not deliver the final examination materials to the final examination location.
- Distribute the final examination materials on desks.
- Make any necessary announcements to the students once they are seated.
- Answer student questions.
- [Invigilate](#).
- Handle escalated student situations.
- Handle emergencies (e.g., building alarms).
- Collect completed final examination materials and choose one of the following methods for processing:
  - Drop off final examinations to W Print for scanning (if applicable).

- Notify W Print if the desire is to pick up the hard copies after scanning is complete.
    - For Crowdmark final examinations, try to keep collected materials organized uniformly by arranging all staples in the top left corner and ensure the QR codes are lined up. Any loose pages should be placed separately in the stack and not inserted into stapled booklets.
  - Take hard copy final examinations for grading.
    - Ensure any hard copies are stored in a secure location according the [University Records Management guidelines for examinations](#).
- Collect unused final examination materials from desks.
  - Dispose of them securely by shredding what will not be used again.

## Proctor responsibilities

### *For final examinations written in the Physical Activities Complex (PAC)*

- Arrive 45 minutes prior to the start of the final examination session.
- Assist instructor (or delegate) with distribution of the final examination materials on desks.
- Assist with traffic flow, monitor entrances (i.e., remain at all doors until all students are seated, ensure students do not leave once they have entered the PAC), and ensure that final examination materials are not removed from the location.
- Make sure students place their belongings under their desks; allow only pens, pencils, erasers, WatCard/ID, and any special materials listed on the front of their final examination on the desk.
- [Invigilate](#).
- Accompany students during washroom and nutrition breaks.
  - Escort only one student at a time (where reasonable).
  - Before leaving the final examination location, ask the student to show the inside of all pockets to confirm they are not carrying mobile devices or other unauthorized materials.
- Ensure adherence to final examination policies and academic regulations.
- Ensure the PAC is cleared after each final examination session and assist with straightening desks and chairs.

### *For final examinations written elsewhere on campus*

- Arrive 45 minutes prior to the start of the final examination session.
- Assist instructor (or delegate) with distribution of the final examination materials on desks.

- Assist with traffic flow, monitor entrances (i.e., remain at all doors until all students are seated, ensure students do not leave once they have entered the location), and ensure that final examination materials are not removed from the location.
- [Invigilate](#).
- Accompany students during washroom and nutrition breaks.
  - Escort only one student at a time.
  - Before leaving the final examination location, ask the student to show the inside of all pockets to confirm they are not carrying mobile devices or other unauthorized materials.
  - Consider using a washroom that is in an unexpected or more distant location from the final examination location (e.g., on a different floor or in another corridor) to reduce the chances academic integrity issues.
- Ensure adherence to final examination policies and academic regulations.
- Assist the instructor with collecting written and unused final examination materials.

## Student arrival and entry time

Students are encouraged to arrive 20 minutes before the session begins and will be permitted to enter the final examination location beginning 15 minutes prior to the session's scheduled start time.

Once students enter the final examination location they are not permitted to leave until the first hour has passed.

### *For Final Examinations in the Physical Activities Complex (PAC)*

- **Entering the building:** Students are asked to use only the South and West entrances on Ring Road. The SLC/PAC Main entrance and North entrance are locked.
- **PAC layout:** Students are told to familiarize themselves with the PAC layout to determine where they will be sitting before arriving for the final examination session. In-person assigned seating can be viewed through the [Examination Management System](#).
- **Washroom access:** Limited to washrooms near the South and West entrances for ease of access and minimal disruption.

## Late entry

After the final examination session has begun, students must remain in the writing location for the first hour. Students who arrive more than one hour late may be barred from writing

the final examination if students have already completed the final examination and have left the final examination location (to decrease academic integrity issues).

#### *Final decision to allow a late student to write*

The decision to allow a late student to write the final examination is at the discretion of the instructor (or designate). If the student is permitted to write during the scheduled final examination session, the proctor must mark the time of entry clearly on all the student's final examination materials.

#### *Time extension*

There shall be no extension of time for students who arrive late, unless approved by the instructor. To ensure academic integrity for the next final examination session, if an instructor (or designate) allows a time extension, they must remove the student(s) from the final examinations location and have them finish elsewhere.

## Completing the final examination

### Minimum time requirement

Students must remain in the final examination location for at least one hour after the final examination begins, regardless of completion.

### Exiting the final examination location

After the first hour has passed, students who have completed their final examination must turn their materials(s) over and raise their hand so the proctor may collect the materials(s). Once the materials are collected, students should leave the location as quietly as possible and exit the building.

### Final 10 minutes

Students will not be permitted to leave the final examination location during the final 10 minutes of the final examination session. All remaining final examination materials will be collected when the final examination session has ended. Students must remain seated until dismissed by the Presiding Officers or the instructor.

## Emergency procedures

The Office of the President, or delegate, will decide, in consultation with the Office of the Registrar (RO) whether to proceed with or to postpone final examinations in the event of extreme weather conditions or any other general emergency which occurs when final examinations are in session.

If the decision is made to proceed with final examinations as scheduled, the RO will be responsible for the conduct of all centrally-administered final examinations; individuals responsible for instructor-administered final examinations scheduled in faculty or academic unit locations will follow guidance determined by the Dean of their faculty, or delegate, for handling such final examinations in emergency situations.

If the decision is made to postpone final examinations, the postponement will apply to all final examinations scheduled for a particular day or part thereof, regardless of writing location. Rescheduled final examinations will be held at the same time and location as originally scheduled on the next available day, including Sunday, on which final examinations have not been scheduled. Final examinations could be rescheduled for times prior to that date by mutual agreement of the instructor and the students in the class. If this occurs, students must be given the option of writing on the official rescheduled date.

## Regroup Mobile

[Regroup Mobile](#) is the sole emergency notification system at Waterloo. All examination personnel are encouraged to download the app to their cellular devices.

## Fire alarm evacuation procedures

All examination personnel must be familiar with the fire alarm evacuation procedures as outlined on the [Final examinations management page](#) on the Registrar's Resources website.

## Final examination sessions affected by irregularities

In rare cases, unforeseen events may occur during a final examination session that disrupt the normal conduct of the final examination. Such irregularities may include, but are not limited to:

- emergency situations resulting in evacuation;
- power outages;
- protests or disturbances;
- defective final examination papers;
- absent or delayed instructors and/or proctors; and
- situations where an instructor or proctor must leave the final examination session due to sudden illness or personal emergency.

In these cases, the Office of the Registrar (RO) will consult with the instructor, or delegate, to determine whether the final examination will continue or be suspended, and final examination materials collected. The instructor, or delegate, is responsible for the final decision and will advise the RO on how to proceed.

Depending on the nature and duration of the disruption, one of the following options will be applied:

1. **Continue the final examination:** If the disruption lasts less than 30 minutes, students may be permitted to resume writing once the issue has been resolved. In such cases, the on-duty Presiding Officer in the Physical Activities Complex (PAC), or the instructor, or delegate, in other writing locations, may authorize a time extension for the entire final examination session. Any extension will not exceed 30 minutes and will be announced to students. This time limit ensures students have time to rest between final examinations should they have back-to-back sessions and ensures enough time is left between sessions for location set up.
2. **Conclude the final examination and apply a prorated marking scheme:** If the disruption occurs in the last thirty minutes remaining in the final examination session, the instructor may choose to end the final examination and assign grades based on the portion completed.
3. **Suspend and reschedule the final examination:** If the disruption is significant or exceeds 30 minutes, the final examination may be suspended and a rewrite scheduled. All final examination materials from the original session would be destroyed and a new final examination would be administered. The instructor may decide to create a new version of the final examination. The RO will co-ordinate logistics for any rescheduled final examination in consultation with the instructor/academic unit.

Students must remain in the final examination location – or the designated evacuation area – until formally instructed otherwise.

#### *Documentation and communication*

The RO will maintain a record of the incident, including the nature of the disruption, time and length of the disruption, actions taken, and the final decision. If the final examination resumes, the final decision should include documenting the precise times when it resumed and when it finished. The RO will ensure timely communication of the outcome to students, instructors, and relevant academic units in writing. Where applicable, follow-up actions such as rescheduling or student notifications will be co-ordinated by the RO in collaboration with the instructor/academic unit.

### **Student illness or injury during the final examination session**

The responsibility for following the prescribed processes below resides with the Presiding Officer (if the final examination is held in the PAC) or with the instructor, or their delegate (if the final examination is held in other locations).

## Serious medical emergency

If a student is ill and it is a serious medical emergency that requires an ambulance, call 911 to report the emergency. If time and the situation allow, call Special Constable Services at 519-888-4911. The Special Constable Services will meet the ambulance at the University entrance and direct them to the location.

## Non-critical illness or injury

If a student has a non-critical illness or injury:

- **During regular business hours (8:30 a.m. to 4:30 p.m. Monday to Friday):** Students should go to the University of Waterloo Clinic (Health Services).
- **Outside of regular business hours (4:30 p.m. to 10 p.m. Monday to Friday):** The University's Campus Response Team (CRT) may be available depending on volunteer availability. CRT's availability for a given term's Final Examination Period will be provided during the distribution of final examination materials to instructors and will accompany evacuation procedures. To contact the CRT for non-critical, medical assistance, call (226) 339-0462.

## Unsuitable conduct during final examination sessions

### Examination personnel

- Socializing and talking loudly should be avoided. Any discussions between examination personnel should be conducted in a whisper and only if necessary.
- Should not leave their designated area.
- Should not perform any actions that take their attention away from invigilating the final examination, including reading, working on laptops, wearing ear buds, talking/texting on cell phones, etc.
- Disrupting students should be avoided.
- Presiding Officers who are assigned walkie-talkies should ensure they remain switched off unless in use.

### Students

If a student is in violation of the final examination rules or is disruptive during proceedings, the Presiding Officer, instructor, or proctor should proceed as follows:

1. **Step #1:** Verbally request that the student comply with the prescribed final examination behaviour and clearly state the policy/regulation being violated.

2. **Step #2:** If the student refuses to comply after the verbal request, the student should be told the following: “You have chosen to continue in violation of policy intended to ensure the integrity of the final examination. If you do not immediately comply with the request, your uncooperative behaviour will be reported to the Associate Dean and an appropriate penalty may be determined based on the severity of the offence. This may include a written warning, a partial or full grade deduction on the final examination, or possible suspension.”
3. **Step #3:** If a student continues to exhibit persistent disruptive or uncooperative behaviour, the student should be told the following: “You have disregarded two requests to comply with final examination policies. A report of this incident will be forwarded to your Associate Dean immediately following this final examination. Your Associate Dean will determine the appropriate disciplinary action based on the severity of the offense.” As soon as possible, the Presiding Officer, proctor, or instructor must:
  - a. make note of the time and details (e.g., refusal to cooperate).
  - b. make a note to remember to keep the completed final examination materials separate from the rest of the stacked materials once they have been collected.
  - c. inform the instructor (if applicable) of the circumstances.
  - d. turn over all evidence available to the faculty’s Associate Dean.

**Important:** If the student refuses to comply, under no circumstances should the student be physically touched.

## Suspected academic misconduct

Academic misconduct during a final examination includes, but is not limited to:

- using unauthorized aids;
- copying from another student’s work or allowing another student to copy from them;
- submitting another person’s work as their own; and/or
- fabricating data.

Where there are reasonable grounds for believing a violation of final examination protocol has occurred, the Presiding Officer, instructor, and proctor have authority to:

- remove anything on the desk not authorized for use in the final examination and keep it until the student has completed the final examination and handed in the final examination materials as required.
- require the student to move to a seat where the Presiding Officer, instructor, or proctor can more easily monitor the student.

- ask a student to reveal “evidence” where the Presiding Officer, instructor, or proctor believes that student has hidden it on their person.
  - **Note:** If the student refuses, under no circumstances should the student be physically touched.
- remove fillable final examination materials and replace them with new ones, if possible; record the time they were replaced.

In all cases, the student(s) must be allowed to finish writing the final examination.

As soon as possible, the Presiding Officer, instructor, or proctor is expected to:

- make a note of the time and details (i.e., specific student behaviour).
- explain to the student that the status of their final examination is in question.
- identify the final examination materials and set them aside.
- inform the instructor of the circumstances (if applicable).
  - **Note:** If the instructor is not available, the Presiding Officer or proctor will inform their supervisor who will work directly with the appropriate Associate Dean.
- turn over all of the evidence available.

## Guidelines for providing academic accommodations and considerations

The current year’s [Undergraduate Studies Academic Calendar](#) and [Graduate Studies Academic Calendar](#) provide regulations and/or guidance on the following:

- Assessments: Academic Accommodations
  - Due to disability
  - Due to creed/religion
  - Due to other Code grounds

The current year’s [Undergraduate Studies Academic Calendar](#) and the Graduate Studies and Postdoctoral Affairs (GSPA) [Current Graduate Student website](#) provide regulations and/or guidance on the following:

- Academic Considerations Due to Illness
- Academic Considerations Due to Final Examination Schedule Conflicts
- Guidelines for Providing Academic Considerations for Final Examinations

**Note:** In the spring term, the current Undergraduate Calendar for the term is the latest archived version.

University of Waterloo instructors provide academic considerations for final examinations when appropriate conditions are met (see criteria in the regulations listed above or contact GSPA for guidance with graduate course final examinations).

When instructors are asked to consider student's extenuating circumstances, the options available to students vary based on the nature of the extenuating circumstances/events and the instructor's own grading practices stated in the course outline.

Any University academic activity that appears in the class search feature in Quest will be given precedence over alternate arrangements in the resolution of an academic consideration.

Any unresolved disputes between instructors and students regarding the legitimacy of extenuating circumstances or the suitability of academic considerations will be decided by the appropriate associate dean(s). When in doubt, students should approach the associate dean from their home faculty. For students taught at the Affiliated and Federated Institutions of Waterloo (AFIW) where there is no associate dean, the dean of the AFIW exercises these responsibilities.

## Deferred final examinations

In some cases, the final examination may be deferred. Normally, the deferred final examination is to be written at a time mutually agreed by the student and instructor, that is as soon after the missed final examination as possible; in any case it is to be written no later than the student's next academic term in which a) the student has an academic term, and b) the course is offered (up to a maximum of one year).

Options for deferred final examinations include:

- Scheduling the final examination directly with the student based on instructor and student availability.
- Attending a make-up final examination session offered by the Office of the Registrar.
- Deferring the final examination to the next class sitting in a future term.

If the deferred final examination is held after the grade submission in Quest closes, or the grading will not be completed by that time, the instructor is to follow the [undergraduate](#) or graduate incomplete (INC) grade process. [Grade changes related to INC grades must be submitted by instructors within one year of the grade becoming official.](#)

## Rescheduling by the instructor

A mutually agreed upon alternate testing time (whether in person or remote) in which all logistics are handled by the academic unit/instructor.

## Make-up final examination sessions

Each term, the Office of the Registrar provides instructors with several dates and times during the Final Examination Period, or shortly thereafter, at which they can assign a student to write a deferred final examination. This option is also available to students studying remotely if they can come to campus.

The registration process to attend only occurs after the student and the instructor have mutually agreed on the date and time.

Any student who arrives at a make-up final examination session who is not registered to write at that session will not be permitted to write and will be directed to contact their instructor.

- All final examination academic regulations also apply to make-up final examination sessions.
- The proctors monitoring make-up final examination sessions will not be associated with the course or subject matter and will not be able to answer questions about the final examination content.

## Deferral to a future academic term

When submitting an undergraduate or graduate INC form, the instructor should indicate the planned future academic term the student will sit for the final examination.

During the academic term the student is scheduled to write the deferred final examination, the academic unit must request the student be added to the term's LEARN course and add the student as a special case in the assessment on Odyssey to ensure a conflict-free final examination schedule for the student.

- **On-campus students:** The deferred final examination will be written on campus.
- **Remote students:** The deferred final examination can be written externally with a proctor the next time an online section is offered.
  - Instructors/academic unit representatives must email [examinations@uwaterloo.ca](mailto:examinations@uwaterloo.ca) to make arrangements for students to clear an INC by writing an externally proctored examination.

## Student access to final examination materials

Review the current [year's Undergraduate Studies Academic Calendar under Regulations - Academic Regulations - Student access to Final Examination Materials](#) for undergraduate

courses or contact the appropriate Graduate Associate Dean for guidance for graduate courses.

**For Discussion****Open Session**

**To:** Senate Graduate Council

**From:** Faculty of Environment

**Presenter(s):** Ian Rowlands, Associate Dean, Graduate Studies;  
Jeffrey Wilson, Director, School of Environment, Enterprise and  
Development;  
Rebecca Wickens, Director, Strategic Initiatives and Communications

**Date of Meeting:** January 21, 2026

**Agenda Item:** **7. Joint Education Institutes**

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**Recommendation/Motion**

There is no motion or recommendation at this time – this item is being brought for discussion of the joint education institute model of academic cooperation in China.

**Summary**

The Faculty of Environment has been approached by several Chinese partners (existing and new) to submit a proposal to the Ministry of Education (MOE) in the People's Republic of China (PRC) to collaborate on a joint education institute (JEI).

The JEI model has existed for decades alongside the joint education program (JEP) model, both of which were created by the government of the PRC to expand global education offerings. Waterloo already participates in JEPs (e.g., 2+2) with Chinese partners, but, to date, has not been part of a JEI. JEIs are most common with large institutions in countries like the US, UK, Australia, and New Zealand.

Under the JEP model, students take courses at the Chinese institution for a certain number of years and then at the partner's institution for a certain number of years, and, with approved transfer credits, they earn two degrees. Under the JEI model, the student is required to complete the same degree requirements for both institutions, but at a location in China. Because the JEI program is more accessible to Chinese families, the enrolment numbers for programs offered via this model are exponentially higher. Otherwise, the intention is for the academic quality and experience of students in a JEI program to follow as closely as possible to the experience of students in a JEP program.

To give effect to this intention, the government of the PRC has set forth specific program requirements in order to obtain its approval. For example, foreign partners are expected to send regular faculty to teach courses in person and in English, additional faculty hired to teach the partner's courses must meet or exceed standards for faculty hires at the partner institution, and the courses and programs must meet the partner institution's usual quality assurance standards.

Environment faculty already teach in China at partner institutions, so this is not an obstacle. However, the volume of in person teaching expected under the JEI model will represent an increase that requires careful planning. This and other operational considerations are being investigated and discussed in the Faculty and with other units on campus.

**Proposal**

Due to geopolitical issues, Canadian government immigration policy, and concerns about safety and cost of education in Canada (relayed by partners), Environment has seen a dramatic decline in international enrolments through all channels including our joint academic partnerships. When the government of the PRC announced a major expansion and expedited approvals for new JEIs in 2025, our joint academic program partners asked us to consider this model as a solution. We are interested in exploring this further and, as such, are seeking feedback to help inform our due diligence process.

**Jurisdictional Information**

The Faculty is consulting with units, committees and councils that have knowledge relevant to our consideration of the JEI model and may be involved in future approvals.

**Governance Path**

The Faculty will consult with the Secretariat on governance paths for further consultation and approvals required.

**Documentation Provided**

N/A

**UNIVERSITY OF WATERLOO**  
**MEMORANDUM**

**TO:** Senate Graduate Council

**FROM:** Members of the Policy & Guideline Committee (a subcommittee of the Accessible Education Project)

**RE:** New G Class Policy – Student Academic Disability Accommodations Policy

**DATE:** January 21, 2026

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The new policy and related procedures describe and implement the University’s commitments and obligations under the *Ontario Human Rights Code* and will be the University’s primary instruments outlining the roles, processes, and responsibilities for providing academic accommodations to students with disabilities.

This memo provides an update on the progress made, the Fall 2025 consultative pathway, and appends the draft of the policy.

**BACKGROUND**

***Student Accommodation Guidelines***

The Student Accommodation Guidelines (“Guidelines”) were implemented in 2019 and have historically been relied upon by the University community to establish student academic accommodation plans, articulate the roles and responsibilities of our community members in the accommodation process, resolve accommodation disputes, and consider requests for retroactive accommodations. These Guidelines refer to and implement requirements under the *Code* as well as best practice guidance from the Ontario Human Rights Commission Policy on Accessible Education for Students with Disabilities.

While the Guidelines have been relied upon by the community, the intention was for these Guidelines to eventually evolve into a formal policy. While situated as “guidelines,” the content includes requirements that operationalize the University’s duty to accommodate under the *Ontario Human Rights Code* as well as a wide range of responsibilities, including those for students, AccessAbility Services, and course instructors. The content of these guidelines is appropriately at the level of university policy.

Much of the new policy leverages content, including responsibilities, from the existing Guidelines. When these guidelines were created in 2019, the following bodies were consulted:

- Deans’ Council
- Executive Council
- Undergraduate Operations Committee
- Graduate Operations Committee
- Undergraduate Student Relations Committee
- Graduate Student Relations Committee
- Faculty Relations Committee
- Committee on Student Mental Health

- FAUW Equity Committee
- Legal and Immigration Services
- Secretariat
- Co-operative Education

### ***Ontario Government – Proposed Recommendations***

In 2021, the Ontario government released a report prepared by their Postsecondary Education Standards Development Committee. This Committee defined the long-term objective of the proposed Postsecondary Education Standards under the *Accessibility for Ontarians with Disabilities Act*, and various measures, policies, practices, and requirements recommended for implementation. While these recommendations have not yet become formal legal requirements, many refer to existing legal requirements and nonetheless translate into good practice. The hope was that postsecondary institutions would begin making changes before the enactment of any forthcoming regulation.

### ***Accessible Education Project***

The Accessible Education one part of the University’s Disability Inclusion project (generally known as DISCo), which aimed to create a university culture in which to the greatest extent that is feasible accessibility becomes “standard operating procedure” at Waterloo. DISCo has the goal of positioning the University to respond appropriately to all 185 of the *AODA* recommendations.

A Policy and Guidelines Working Group (“Working Group”) is one of three working groups that comprise the Accessible Education Project. Its mandate was to transition the Guidelines into a formal G-Class policy. In creating a draft of this policy, this Group has turned its attention not only to strengthening the existing Guidelines but also a number of these *AODA* recommendations. The intent has been to satisfy the spirit of the recommendations and use language that is clear and readily interpreted.

### **SCOPE**

The new policy and procedures apply to academic accommodations for students (undergraduate and graduate) with disabilities. Academic accommodations are modifications or adjustments to the way that a student with a disability accesses and fully participates in their academics.

The policy scope is narrower than the original intent, which would have covered accommodations for all protected grounds under the *Ontario Human Rights Code*. It was ultimately decided that a policy for accommodating students with disabilities was ready and important to move forward at this time.

As with the existing Student Accommodation Guidelines, the new policy and procedures outline roles and responsibilities of groups involved in the accommodation process, including students, Course Instructors and Graduate Student Supervisors (which includes faculty, staff instructors), Chairs and Directors, AccessAbility Services, and the University.

The draft policy includes procedures for: establishing academic accommodations; dispute resolution; and retroactive accommodations. Additional guidelines covering topics such as referrals, timely accommodations, safeguarding confidentiality, and essential requirements as they relate to accommodations have been and will be developed by AccessAbility Services.

The draft policy was drafted in alignment with statutory obligations under the *Ontario Human Rights Code* and the *Accessibility for Ontarians with Disabilities Act*. Policy 58 – Accessibility – remains the university’s accessibility policy to give effect to multiple AODA requirements.

The draft policy leverages the existing [Student Accommodation Guidelines](#), [the Ontario Human Rights Commission’s Policy on Accessible Education for Students with Disabilities](#), and the [Final Recommendations from the Postsecondary Education Standards Development Committee](#).

## **DRAFTING PROCESS**

The draft policy and procedures are the result of careful consideration of a Working Group based on their subject matter expertise and experiences with the existing Student Accommodation Guidelines. This draft has also received and implemented feedback from campus experts and a consultative policy drafting committee as outlined below.

The Working Group included:

- Associate Vice-President, Academic (Co-lead, Policy and Guidelines Project Team, Policy Working Group)
- Associate Provost, Campus Support and Accessibility (Co-lead, Policy Working Group)
- An Associate Dean, Undergraduate Studies
- A Representative from the Library
- Associate Registrar (Co- lead, Policy and Guidelines Project Team)
- Director, Student Decision and Policy Support
- Associate University Secretary, Policy and Special Projects
- A Faculty member
- Director, AccessAbility Services

Out of the Working Group, a smaller policy working group was charged with updating the drafts following all consultations. The mandate was to draft a policy that:

- adapted the Student Accommodation Guidelines for consistency with other University Policies
- was informed by the recommendations to the Ontario government related to the development of proposed postsecondary education accessibility standards
- ensured the University meets legal requirements related to accommodations for students
- strengthened the existing Student Accommodation Guidelines by identifying and filling gaps in practice and recommending other improvements

The draft has also received reviews and incorporated feedback from:

- LIS (January 2025; August 2025)
- Office of the Ombudsperson (April 2025)
- A Policy Drafting Committee (April-May 2025). A committee made up of campus experts for comment and feedback, approved by the President. A graduate and an undergraduate student were invited to be on this committee. The committee was asked to review the draft and make recommendations for improvement prior to wider consultation. The same committee will be asked to review and approve post-consultation edits
- ADU Group (June 2025)

## **FURTHER CONSULTATIONS**

Wider consultations and presentations to be undertaken by the Working Group will include

- PVP+
- Deans' Council +
- Undergraduate Student Relations Committee
- Graduate Student Relations Committee
- Senate Undergraduate Council
- Senate Graduate Council
- Faculty Relations Committee
- Staff Relations Committee
- Council of Academic Leaders

Additionally, the Working Group will send the draft policy for feedback from the following campus groups:

- The Centre for Extended Learning
- The Centre for Teaching Excellence
- The Library
- Co-operative Education
- Conflict Management Office
- Graduate Studies and Postdoctoral Affairs
- Office of Equity, Diversity, Inclusion and Anti-Racism
- Office of Indigenous Relations
- Registrar's Office
- Plant Operations
- Space Planning/teaching and Learning Spaces Committee
- WUSA
- GSA

## **APPROVAL AND GOVERNANCE**

- President (approval, recommend to Senate)
- Senate (approval, recommend to Board of Governors)
- Community & Culture Committee (information and discussion)
- Board of Governors, aiming for February 2026 (final approval)

## **APPENDED**

- Draft Policy and Procedures

## **SGC – Student Academic Disability Accommodations Policy – Proposed Revisions Following Consultations**

*The following are proposed revisions to the policy that may be of interest to SGC. The proposed revisions are in response to feedback and comments received in the consultative period in Fall 2025, including feedback from GSA, GPSA, CEL, and CTE. The draft before SGC is the same draft consulted on in the Fall. We are sharing these select proposed revisions as they relate to graduate students and because, following feedback, it was recognized that the process for graduate students needed to be reflected more explicitly in the policy. These proposed revisions will be shared with the Working Group leading this policy process. SGC may comment on these proposed revisions, in addition to the policy.*

- Generally, specifying throughout (where relevant) that academic accommodations include graduate milestones.
- Clarifying that Interim Accommodations also apply to graduate milestones.
- Clarifying that for some graduate student accommodations, AccessAbility Services (AAS) may consult with (in addition to the student) relevant members of the academic unit, such as a graduate program coordinator, or Graduate Officers, rather than a student's graduate student supervisor, in the design and implementation of the student's academic accommodation plan. This is meant to be consistent with regulations in the graduate calendar.
- Clarifying that graduate students have a role to participate in the graduate milestone accommodation process.
- Revising the definition of Graduate Student Supervisor, to clarify that the role is with respect to milestones/non-course degree requirements.
- Revising the definition of Graduate Student Supervisor, to clarify the process when a student has co-supervisors – that one will be assigned a primary point of contact for accommodations.
- Adding a definition of Academic Advisor and clarifying that this can include graduate students and graduate officers (Academic Advisors will have a role to refer students to AccessAbility Services).
- Adding a principle that all accommodation requests will be considered in good faith.
- Adding process to the procedures, to clarify students' responsibility to book appointments with accommodation consultants to request accommodations and to trigger the system to activate the accommodation plan.
- Adding process to the procedures, to clarify students' responsibility to complete and sign required forms and provide consent for AAS to share forms with the student's supervisor, graduate officer, or graduate coordinator as the case may be.
- Clarify who will enable the academic accommodation for graduate students (supervisor, graduate officer, graduate coordinator as the case may be).

*The policies found on the website of the Secretariat are compulsory rules for the University community. The authoritative copies of the policies are held by the Secretariat and bear the seal of the University. The online version accessible through the website of the Secretariat is available for information purposes only. In case of discrepancy between the online version and the authoritative copy held by the Secretariat, the authoritative copy shall prevail. Please contact the Secretariat for assistance if necessary.*

<b>Established:</b>	[Insert date of final approval in accordance with Policy 1.]
<b>Revised:</b>	N/A.
<b>Mandatory Review Date:</b>	[If a new policy, insert the second anniversary of the establishment date. If revised, insert the fifth anniversary after the date when last revised.]
<b>Supersedes:</b>	Student Academic Accommodation Guidelines
<b>Class:</b>	G
<b>Responsible/Originating Departments:</b>	Associate Vice-President, Academic Associate Provost, Campus Support and Accessibility
<b>Executive Contact:</b>	TBD

**Related Policies, Guidelines and Procedures:**

- AccessAbility Services Guidelines
- Policy 46 – Information Management
- Managing Student Information for Faculties, Academic Departments and Schools
- Policy 33 – Ethical Behaviour
- Policy 58 – Accessibility
- Policy 70 – Student Petitions and Grievances

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**1. Introduction**

- 1.1 The University of Waterloo is committed to the good health and well-being of its Students, to creating a supportive environment for learning and discovery, and to building community where all members are treated in a fair and equitable manner.
- 1.2 The University recognizes an ongoing commitment to values of inclusivity, diversity, equity, and accessibility as important contributions to its teaching and research missions.
- 1.3 The University recognizes that the Ontario *Human Rights Code* (the “Code”) guarantees the right to equal treatment in education, without discrimination, and its obligations to take substantial and

meaningful measures to promote inclusiveness and equal participation for students on grounds established by the *Code*.

- 1.4 Aligned with its commitments, and its obligations under the *s Code*, including the duty to inquire, the University provides academic accommodations to Students with Disabilities who are require accommodations in order to meaningfully access their education at the University, as described in this policy.
- 1.5 Within the context of this policy academic accommodations are modifications or adjustments to the way that an otherwise qualified Student with a Disability accesses and fully participates in their academics. These address the way a Student receives course curriculum and materials, participates in course activities, or demonstrates mastery of course content and skill.
- 1.6 Academic accommodations do not alter the essential requirements of a program or course. Appropriate academic accommodations provide enable Students the opportunity to meet the essential requirements of the course or program, with no alteration in standards or outcomes, although the manner in which the student demonstrates proficiency, knowledge and skills may be altered.
- 1.7 The University will provide meaningful support in this context, carefully considering individual circumstances and institutional responsibilities. This includes the responsibility to accommodate students up to the point of undue hardship, which is the legal outer limit of the duty to accommodate, and which is considered individually within the full context of a request for academic accommodation.
- 1.8 The University recognizes that Students' identities can intersect and is committed to an intersectional approach to addressing multiple grounds of discrimination and a process that is considerate of a Student's identities.
- 1.9 In recognition of the University's commitments and obligations, this policy describes the roles and responsibilities of various University community members in the academic accommodation process, and outlines specific procedures for:
  - implementing academic accommodations, including Interim Accommodations (see section 7.4)
  - resolving disputes related to academic accommodations (see section 7.5)
  - seeking Retroactive Accommodation (see section 7.7)

## 2. Scope

- 2.1 This policy applies to Students as defined in the policy. This policy does not apply to Students in their capacity as employees of the University, for which there is a separate employee accommodation process managed by the Office of Employee Health and Accommodations.
- 2.2 Employees involved in the provision of academic accommodations to Students are subject to responsibilities outlined in the policy. Specific roles and responsibilities are articulated in this policy for Course Instructors and Graduate Student Supervisors, AccessAbility Services, and Academic Administrators.

- 2.3 The policy's scope is academic accommodation of the needs of Students on the protected ground of Disability. The academic calendars (for undergraduate studies and for graduate studies) outline accommodations processes more generally and for other *Code*-protected grounds.
- 2.4 External entities and third parties providing goods, services, or facilities to Students have their own responsibilities to provide accommodations under the *Ontario Human Rights Code*, separate from this policy.

### 3. Legal Framework

- 3.1 In addition to the abovementioned "Related Policies, Guidelines & Procedures", the policy must be construed in accordance with the following legal provisions:
  - *Ontario Human Rights Code*, R.S.O. 1990, c. H.19
  - *Personal Health Information Protection Act*, 2004, S.O. 2004, c. 3, Sched. A
  - *Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. F.31

A reference to legislation includes the regulations made thereunder.

- 3.2 If any of these legal provisions are modified, abrogated, superseded, or added to, the policy shall be interpreted in accordance with this new legal framework.

### 4. Purpose

The purposes of this policy are:

- 4.1 To describe and implement the University's duty to accommodate, up to the point of undue hardship, for Students with Disabilities.
- 4.2 To support the development of practices and procedures that enable equitable and inclusive academic opportunities for Students at the University.
- 4.3 To outline roles and responsibilities in the accommodation process for those who have responsibility in the academic accommodation process for Students.
- 4.4 To contribute to a culture around academic accommodations and the accommodation process that fosters a climate of understanding, dignity, and confidentiality.

### 5. Principles

The University is committed to respecting the diversity of its Students and to a collaborative accommodation process. The duty to accommodate is informed by key principles.

- 5.1 **Respect for dignity:** means respecting the dignity of the Student and promoting respect, encompassing the Student's self-worth, autonomy, and empowerment.
- 5.2 **Individualization:** means considering the unique identities and needs of each Student. Individualization recognizes that academic accommodations may need to be revisited over time to respond to changes in a Student's needs.

5.3 **Integration and full participation:** means removing existing barriers and providing accommodations where barriers continue to exist. This means taking steps to develop and implement accommodations with a view to maximizing a Student's full participation.

## 6. Roles and Responsibilities

### 6.1. University

- 6.1.1. The University shall inform incoming and current Students, as early as possible and in a readily accessible and understandable way, of the accommodations and supports available to Students with known or suspected disabilities.
- 6.1.2. The University shall provide academic accommodations for Students, up to the point of undue hardship, in accordance with the *Ontario Human Rights Code* and other applicable legislation, as well as in accordance with any University policies and procedures.
- 6.1.3. To support the requirements of the duty to accommodate, University employees with obligations under this policy are expected to work collaboratively with other parties as required and necessary to facilitate the accommodation.
- 6.1.4. The University shall consider all requests for Retroactive Accommodations, on a case-by-case basis.
- 6.1.5. The University recognizes its duty to inquire, which means proactively identifying Students who are perceived to have a Disability by inquiring as to whether the Student is aware of the available accommodation support and offering a meaningful opportunity for the Student to request an academic accommodation. The duty is triggered where the University is aware, or reasonably ought to be aware, that there may be a relationship between a Disability and a Student's behavior or academic performance.
- 6.1.6. All individuals involved in the accommodation process and or implementing accommodations must protect and maintain Students' privacy and confidentiality. All accommodation information must only be shared on a need-to-know basis. Personal health information must be collected, shared, disclosed, and stored in manner that is consistent with privacy legislation, Policy 46 – Information Management, and the Guidelines for the Protection of Personal Health Information. Only AccessAbility Services may request, accept, or review information related to a Student's medical or personal health. Employees other than AccessAbility Services who receive private medical information or documentation from a Student should securely dispose of it, or redirect it, in accordance with AccessAbility Services guidelines.

### 6.2. AccessAbility Services

6.2.1. AccessAbility Services is the University's centralized office for:

- Receiving and facilitating all applications from Students for academic accommodations.
- Receiving and facilitating any referrals from employees for Students with known or suspected Disabilities

- Receiving and assessing supporting medical documentation to determine accommodation needs.
  - Designing, and revising when needed, Accommodation Plans in collaboration with the Student, the Course Instructor or Graduate Student Supervisor or Academic Administrators, for individual course academic accommodations or program-level academic accommodations as the case may be.
  - Managing and facilitating the implementation of academic accommodations, when needed.
  - Offering accommodation-based supports that increase Student capacity for personal success.
- 6.2.2. AccessAbility Services receives requests for and facilitates Interim Accommodations on a case-by-case basis (for example, where medical documentation is pending). Interim Accommodations will be provided for up to one (1) full term and may be extended as necessary.
- 6.2.3. AccessAbility Services provides direction and/or recommendations to Course Instructors, or Academic Administrators, and other employees regarding whether there is a duty to accommodate a Student for the purposes of academic accommodations, Retroactive Accommodations, or other exceptions.
- 6.2.4. AccessAbility Services maintains confidentiality and privacy in exercising its responsibilities under this policy in accordance with AccessAbility Services guidelines, *PHIPA* and *FIPPA*, and Policy 46 – Information Management. This includes informing Students of their rights to privacy, seeking consent to share information as necessary throughout the academic accommodation process, and informing Students how their information is used, stored and protected.
- 6.2.5. AccessAbility Services facilitates the procedures related to academic accommodations and Interim Accommodations. AccessAbility Services facilitates the procedures related to Retroactive Accommodations unless they are covered under another University process.
- 6.2.6. AccessAbility Services receives and facilitates all Student requests for Retroactive Accommodations.
- 6.2.7. AccessAbility Services facilitates informal dispute resolution, as set out in the informal Dispute Resolution Procedures.
- 6.3. Course Instructors and Graduate Student Supervisors
- 6.3.1. Course Instructors and Graduate Student Supervisors refer Students to AccessAbility Services. This includes Students who request academic accommodations from them directly or who indicate that their academic accommodation may not be appropriate. Course Instructors or Graduate Student Supervisors should also refer Students whom they suspect might require academic accommodations, Students who mention a permanent or temporary Disability. AccessAbility Services referral guidelines provide the recommended referral practice for these types of referrals as well as example scenarios where Course Instructors and Graduate Student Supervisors should refer Students to AccessAbility Services.

6.3.2. Course Instructors and Graduate Student Supervisors uphold a Student's Accommodation Plan with AccessAbility Services, to the point of undue hardship, with support for example from Departmental Chairs, School Directors, or AccessAbility Services. To facilitate this, Course Instructors and Graduate Student Supervisors:

- Seek clarification from AccessAbility Services when needed.
- Facilitate the implementation of academic accommodations when not already facilitated by AccessAbility Services.
- Participate in the dispute resolution procedures when needed.
- Work collaboratively with AccessAbility Services to determine an alternative accommodation if the proposed accommodation would cause undue hardship, such as fundamentally altering the essential requirements of the course, program, or plan.

6.3.3. To help AccessAbility Services facilitate timely accommodations, Course Instructors and Graduate Student Supervisors engage in the accommodation process in a prompt manner. Course Instructors and Graduate Student Supervisors are also encouraged to follow AccessAbility Services guidelines that outline the recommended timelines for submission of materials.

6.3.4. Where necessary, Course Instructors inform guest lecturers and teaching assistants, or other classroom/lab instructors of a Student's Accommodation Plan and their responsibilities to uphold it.

#### 6.4. Students

6.4.1. Students apply to AccessAbility Services once they have accepted their offer of admission from the University or as soon as they become aware of (or suspect) a need for accommodation, to make the nature of their Disability and or their accommodation needs known.

6.4.2. Students must actively participate in the accommodation process, including:

- Meeting with AccessAbility Services to provide input into the development of an Accommodation Plan.
- Following AccessAbility Services published deadlines (for example, exam booking deadlines or accommodation activation dates).
- Providing appropriate documentation to AccessAbility Services when required, in accordance with AccessAbility Services guidelines.
- Selecting and requesting classroom, alternate format, and or testing accommodations at the start of each academic term or as soon as possible, using AccessAbility Services' online system to activate the Accommodation Plan for the term.
- Requesting Interim Accommodations, as needed, in accordance with AccessAbility Services guidelines.

6.4.3. Students contact AccessAbility Services if there is a change in their condition and or if there are concerns with their individualized Accommodation Plan, or if there is an aspect of education for which there is no Accommodation Plan established.

6.4.4. Students make AccessAbility Services aware of the need for Retroactive Accommodation as soon as they are aware of such need and actively participate in the Retroactive Accommodation Procedures.

6.5. Academic Administrators

*Department Chairs or School Directors*

6.5.1. Ensure staff and Course Instructors and Graduate Student Supervisors within their respective unit are aware of this policy and its relationship to departmental practices.

6.5.2. Collaborate with AccessAbility Services to resolve informal accommodation disputes, in accordance with the dispute resolution procedure.

6.5.3. Act in their capacity to provide Course Instructors and Graduate Student Supervisors with resources and required supports in order to implement any approved accommodation.

*All Academic Administrators Responsibilities*

6.5.4. Academic Administrators act in their capacity to support the implementation of academic accommodations across the Student's program of study.

6.6. Academic Advisors

6.6.1. Refer all Students to AccessAbility Services in accordance with section 6.3.2 of this policy.

**7. Procedures**

7.1. In general, these procedures delineate process and responsibilities in furtherance of the University's accommodation commitments and obligations.

7.2. Principles

7.2.1. The Student accommodation process, including all meetings, are always intended to arrive at the most reasonable accommodation for Students. This process is based on the presumption that better solutions are achieved when discussed directly with the Student.

7.2.2. A Student has the right to support. This includes being accompanied by a support person in any procedure under or associated with this policy. Support persons may accompany Students seeking an accommodation to assist with communication, mobility, personal care, medical needs, and or to provide moral and emotional support to the Student.

7.2.3. The procedures are informed by, and will be guided by, principles of fairness and due process.

7.3. Guidelines created and implemented by AccessAbility Services in furtherance of operationalizing this policy are listed on AccessAbility Services' website and may include:

- Guidelines for referring students to Accessibility Services
- Guidelines to facilitate timely academic accommodations

- Guidelines for protecting personal health information
- Guidelines for documentation requirements
- Guidelines for the development and use of essential requirements in relation to the duty to accommodate

#### 7.4. Process for Establishing Academic Accommodations

- 7.4.1. Students submit an application to register with AccessAbility Services through the AccessAbility Services website as soon as the need for accommodation becomes known, to make the nature of their Disability and/or their accommodation needs known.
- 7.4.2. Students submit any supporting documentation directly to AccessAbility Services, and never to their Course Instructor or Graduate Student Supervisor. Medical documentation is not required to apply to register with AccessAbility Services, as Interim Accommodations can be provided pending documentation.
- 7.4.3. AccessAbility Services staff assess documentation to determine Disability status and eligibility for academic accommodations, and whether further documentation is required.
- 7.4.4. The Student will be invited by email by AccessAbility Services to book a virtual or in-person appointment with AccessAbility Services to actively participate in planning and discussing their needs, and to finalize their individualized Accommodation Plan.
- 7.4.5. For course-based accommodations, Students request their eligible course-based accommodations, alternate format, and testing accommodations, using AccessAbility Services' online system, in accordance with AccessAbility Services guidelines. It is understood that this system triggers the Faculty Notification Letter, which is a necessary mechanism to activate and implement accommodations.
- 7.4.6. The approved Accommodation Plan is communicated from AccessAbility Services to each Course Instructor via the Faculty Notification Letter. Graduate milestone accommodations will be communicated via email to Graduate Student Supervisor or relevant administrator, as the case may be.
- 7.4.7. The Course Instructor or Graduate Student Supervisor will enable the academic accommodation and will participate in the accommodation process as required. Where a Course Instructor or Graduate Student Supervisor believes the academic accommodation is not suitable, or is concerned about the appropriateness of the accommodation, the dispute resolution process shall be engaged.
- 7.4.8. Where an Accommodation Plan is not meeting a Student's needs, or when the Student's condition or learning environment has changed, the Student should contact AccessAbility Services to initiate review of their Plan.
- 7.4.9. The Course Instructor or Graduate Student Supervisor contacts AccessAbility Services if they have questions or concerns with the Accommodation Plan. The Accommodation Plan may be amended as needed, in consultation with the Student.

## 7.5. Dispute Resolution

- 7.5.1. A Student or Course Instructor or Graduate Student Supervisor might disagree with any of the following:
- The approved academic accommodation or approved academic accommodation solution.
  - The Accommodation Plan as designed by AccessAbility Services.
  - The services or supports offered by AccessAbility Services.
- 7.5.2. Depending on the nature of the dispute, there are two informal dispute resolution processes, that will be engaged prior to the formal dispute processes:
- Academic Accommodation Dispute Process
  - Accommodation Plan Dispute Process
- 7.5.3. In any informal or formal dispute resolution process outlined in these procedures, a Student's Accommodation Plan as defined by AccessAbility Services will apply until a decision is made.

## 7.6. Dispute Resolution Processes

### 7.6.1. *Academic Accommodation Dispute Resolution (Informal)*

- 7.6.1.1. This informal Process governs disputes with an academic accommodation and or the outcome. For example, where a Course Instructor believes that allowing the specific accommodation would cause undue hardship as it would fundamentally alter the course's essential requirements, or where a Course Instructor believes the Student was already accommodated through other means.
- 7.6.1.2. To initiate the process, a Student or Course Instructor or Graduate Student Supervisor must email AccessAbility Services indicating a dispute with a current academic accommodation.
- 7.6.1.3. AccessAbility Services responds to parties to set up separate meetings as required. The meetings will attempt to understand and resolve the academic accommodation dispute, including whether an alternate and equivalent academic accommodation can be implemented.
- 7.6.1.4. If it becomes apparent that the academic accommodation dispute cannot be resolved with these parties, AccessAbility Services contacts the Chair or Director of either the Course Instructor or Graduate Student Supervisor to resolve the matter informally. The Chair or Director will be informed of the recommended academic accommodation, the Student's and the Course Instructor or Graduate Student Supervisor's position and or rationale for disputing the academic accommodation, as applicable, and any other relevant information.
- 7.6.1.5. Based on the information submitted, the Chair or Director renders a decision on the appropriateness of the accommodation. The Chair or Director has access to campus supports in rendering this decision, including AccessAbility Services. If deemed

that the accommodation is inappropriate, AccessAbility Services works with the Chair or Director as needed to establish an alternate accommodation if possible.

- 7.6.1.6. The Chair or Director communicates their decision and if applicable the alternate accommodation to the Course Instructor or Graduate Student Supervisor, copying AccessAbility Services.
- 7.6.1.7. The Course Instructor or Graduate Student Supervisor, or AccessAbility Services, as the case may be, implements the academic accommodation.
- 7.6.1.8. AccessAbility Services communicates the decision and any changes in the academic accommodation to the Student.

#### 7.6.2. *Accommodation Plan Dispute Resolution Process (Informal)*

- 7.6.2.1. This informal process governs disputes with the Accommodation Plan as designed by AccessAbility Services and or the services and supports offered by AccessAbility Services.
- 7.6.2.2. To initiate the process, Students must first speak with an Accommodation Consultant.
- 7.6.2.3. If the matter is not sufficiently resolved, the matter may be escalated to AccessAbility Services' Manager, Student Accommodations, and then the Associate Director, if needed.
- 7.6.2.4. AccessAbility Services communicates the decision and any changes to the Accommodation Plan to the Student.

#### 7.6.3. *Formal Dispute Resolution Process*

- 7.6.3.1. If the accommodation dispute cannot be resolved informally, the Student may seek relief by filing a petition or grievance in accordance with Policy 70 - Student Petitions and Grievances.

### 7.7. Retroactive Accommodation Procedures

#### 7.7.1. *Retroactive Accommodation Process prior to completion of a course or when actively pursuing an academic milestone*

- 7.7.1.1. Students must notify AccessAbility Services by email of their request for a Retroactive Accommodation for a specific course or milestone, as soon as the need becomes known. Course Instructors or Graduate Student Supervisors should refer Students who request a Retroactive Accommodation to AccessAbility Services.
- 7.7.1.2. Students not already registered with AccessAbility Services will be asked to first apply with AccessAbility Services and indicate in their application that they are seeking support for a Retroactive Accommodation.

7.7.1.3. AccessAbility Services staff will:

- Review the request and any provided documentation to determine the need for a Retroactive Accommodation; and/or
- Assess whether further documentation or information is required.

7.7.1.4. As necessary, the Student will be invited to make an appointment with AccessAbility Services to discuss the request for a Retroactive Accommodation. AccessAbility Services may ask the Student to obtain and or submit additional medical documentation to support their request for a Retroactive Accommodation

7.7.1.5. If AccessAbility Services determines a Retroactive Accommodation is required prior to completion of a course or milestone, AccessAbility Services notifies the Course Instructor or Graduate Student Supervisor of the need to provide a Retroactive Accommodation. AccessAbility Services collaborates with the Course Instructor or Graduate Student Supervisor to determine the most appropriate Retroactive Accommodation considering all of the information. If a Course Instructor or Graduate Student Supervisor disputes the accommodation solution offered by AccessAbility Service, the informal dispute process in section 7.6.1 may be followed.

7.7.1.6. If AccessAbility Services determines that the Student is not eligible for Retroactive Accommodations, the decision will be provided to the Student in person or in writing. Students may request a meeting with AccessAbility Services to ask questions or seek clarification.

#### *7.7.2. Retroactive Accommodation after completion of a course or milestone or after graduation*

7.7.2.1. If the Retroactive Accommodation is for a completed course or milestone, the Student will seek a Retroactive Accommodation via a petition under Policy 70, indicating a request for Retroactive Accommodation.

7.7.2.2. If the Retroactive Accommodation is for a completed course or milestone, and the Student has graduated from the University, the Student will seek a Retroactive Accommodation via a petition, indicating a request for Retroactive Accommodation.

### 7.8. Student Supports

Students have access to guidance and supports regarding their policy options, that may include:

- Academic advisors
- Associate Deans
- Peer or student support associations
- Office of the Ombudsperson

## Appendix A – Glossary

**Accommodation Plan.** Accommodation plans are designed and facilitated by AccessAbility Services and are individualized and tailored to the Disability-based needs of Students within their academic environment.

**Academic Administrators.** Associate Deans, Chairs/Associate Chairs, Directors/Associate Directors, or their delegates.

**Course Instructor.** The individual assigned in Quest to teach and manage a course and can include regular and part-time faculty members, sessionals, staff instructors, visiting faculty, and Course Instructor's delegate. The definition also encompasses an undergraduate student's project or research supervisor. If a course is delegated to someone other than the individual assigned in Quest, AccessAbility Services must be notified of this delegation at the beginning of a term.

**Disability.** The term "disability" is defined as follows in the Ontario Human Rights Code, R.S.O. 1990, c.H.19, as amended from time to time:

- any degree of physical disability, infirmity, malformation or disfigurement that is caused by bodily injury, birth defect or illness and, without limiting the generality of the foregoing, includes diabetes mellitus, epilepsy, a brain injury, any degree of paralysis, amputation, lack of physical co-ordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment, or physical reliance on a guide dog or other animal or on a wheelchair or other remedial appliance or device,
- a condition of mental impairment or a developmental disability,
- a learning disability, or a dysfunction in one or more of the processes involved in understanding or using symbols or spoken language,
- a mental disorder, or
- an injury or disability for which benefits were claimed or received under the insurance plan established under the *Workplace Safety and Insurance Act, 1997*.

**Faculty Notification Letter.** The communication, sent by email, from AccessAbility Services to the Course Instructor with the Accommodation Plan.

**Graduate Student Supervisor.** A faculty member who has Sole-Supervisory Privilege status with respect to the Student, as understood in the Graduate Studies Academic Calendar regulations.

**Interim Accommodation.** Temporary, reasonable academic accommodations that are implemented on a good-faith basis while an accommodation request is under review or while a Student is in assessment process of diagnosis, and/or obtaining medical documentation, and/or are experiencing barriers in the healthcare system.

**Retroactive Accommodation.** Requests for an academic accommodation that arises after a deadline or the completion of a test, academic milestone, or course.

**Student.** An individual who is registered and have paid fees or arranged to pay their fees at the University of Waterloo. This definition also includes individuals who were students and are now seeking a Retroactive Accommodation.

# Student Academic Accommodations Policy

## SUC, SGC

Graham Brown, Associate University Secretary: Policy And Special Projects

Jennifer Gillies, Associate Provost, Campus Support

# Who we are

Graham Brown, AUS Policy and Special Projects  
(Working Group Policy Support)

Jennifer Gillies, Associate Provost, Campus Support  
(Co-Lead Policy Working Group; Policy & Guidelines Team, Accessible Education Project)

## **Accessible Education Project, Policy and Guidelines Team:**

Jennifer Coghlin (Co-Lead), Associate Registrar, Enrolment Services & Academic Policy (Registrar's Office)

David DeVidi (Co-Lead), Professor (Philosophy) | Associate Vice-President, Academic

Jay Dolmage, Professor & Chair (English Language and Literature)

Jennifer Gillies, Associate Provost, Campus Support and Accessibility

Jason Grove, Associate Dean, Undergraduate Studies (Engineering) | Associate Professor, Teaching Stream (Chemical Engineering)

Geoffrey Shifflett, Director (AccessAbility Services)

Nadia Singh, Director, Student Decision and Policy Support

Kate Mercer, Liaison Librarian

# Why are we here

- Consultations for a new G-Class Policy
- Your opportunity to share feedback, and share policy with your constituents for feedback
- We want all feedback
- Submit to → [tii@uwaterloo.ca](mailto:tii@uwaterloo.ca)

# Why a Student Accommodation Policy is needed

## 2018

- University creates Student Academic Accommodation Guidelines
- Extensive consultations

## 2022

- Postsecondary Education Standard under the *Accessibility for Ontarians with Disabilities Act (AODA)* – final recommendations

## 2023

- Accessible Education Project
  - Multiple goals and deliverables aimed at improving accessible education
  - Sub-project team – Policies and Guidelines team

# Drafting Process - Snapshot

- Sub-Committee within the Accessible Education Project: Policy & Guidelines Team
- Working Group formed
  - Request to initiate G Policy submitted to the President, 2024
  - Adapt existing Accommodation Guidelines into a Policy + Procedures
- Policy Drafting Committee
  - reviewed the draft prepared by the Working Group
  - review and approve post-consultation edits to the draft prior to submission to the President
- LIS, Ombudsperson, ADU Group, PVP+ - see memo for others

# Key Changes and Goals

- Strengthen existing Guidelines: identify and fill gaps
- Retained key procedures from Guidelines
- Follows University policy structure:
  - Clear articulation of Commitments, Scope, Purpose, Principles, Roles and Responsibilities
- Informed by scan of other University policies
- Meet all legal (*Code*) requirements related to accommodations for students
- Recommendations for other policies or guidelines

# Contacts

Submit Feedback to:

[tii@uwaterloo.ca](mailto:tii@uwaterloo.ca)

Questions:

Graham Brown

[g5brown@uwaterloo.ca](mailto:g5brown@uwaterloo.ca)

For Information

Open Session

**To:** Senate Graduate Council

**From:** Nasser Mohieddin Abukhdeir  
Faculty Senator

**Date of Meeting:** January 21, 2026

**Agenda Item:** **9. Senate Academic Innovation Committee – Draft Proposal**

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### Summary

Nasser Mohieddin Abukhdeir, Faculty Senator, will provide an overview of the draft proposal for the creation of a Senate Academic Innovation Committee as presented to Senate Executive Committee on November 10, 2025. The proposal is being brought forward to SGC for feedback and recommendation to Senate to proceed with the creation of SAIC. A similar formal recommendation will be sought from the Senate Undergraduate Council in January 2026.

### Proposal/Rationale

A proposal for the creation of a new standing sub-committee of the Senate, the Senate Academic Innovation Committee (SAIC), which would jointly report to Senate Undergraduate and Senate Graduate Councils (SUC and SGC), being focused on consideration and recommendation (to SUC and SGC) on:

- “adoption of processes and practices that will enhance the quality and viability of academic programming and its delivery<sup>1</sup>” or, rephrased “to consider and recommend improvements to academic programming and its delivery with an equal focus on efficiency, quality, and viability.”
- non-degree/non-credit or alternative credentials<sup>2</sup> consider and approval

which clearly fall under the jurisdiction of the Senate<sup>3</sup> to “establish the educational policies of the University and to make recommendations to the Board of Governors with respect to any matter relative to the operation of the University.” This Senate standing committee is proposed to continue, through collegial governance principles and processes, the short-term

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<sup>1</sup> <https://uwaterloo.ca/waterloo-budget-plan/innovation-action/academic-innovation-working-group/terms-of-reference>

<sup>2</sup> <https://uwaterloo.ca/associate-vice-president-academic/sites/default/files/uploads/documents/credentials-framework-report-final-august-2024.pdf>

<sup>3</sup> Section 22, <https://uwaterloo.ca/secretariat/university-waterloo-act#Senate>

work of the Academic Innovation Working Group<sup>4</sup> (AIWG) and the ongoing responsibilities of the ad hoc Alternative Credentials Approval Committee<sup>5</sup> (ACAC).

There are at least three distinct justifications for the creation of this standing committee of the Senate, along with potential creation of faculty and department committees to advise it as is the case for the existing Undergraduate and Graduate Councils of the Senate. These three justifications are summarized as follows:

- 1) There is a clear need for formalized and collegial innovation in academic programming and delivery of that programming at the University. This has been communicated, in part, by the President and Provost in announcing the creation of the AIWG which is short-term, ancillary to collegial governance processes, and motivated partially by short-term financial constraints. The proposed SAIC complements and continues the work of AIWG by fulfilling most of the same roles in a sustainable long-term form using existing collegial governance processes per the UW Act.
- 2) Recommendations of the existing AIWG need to be considered by the SUC and SGC and, potentially, recommended for approval by Senate. The SAIC would be the ideal venue for this and relieve some of the burden of the already heavily loaded SUC and SGC, allowing for sufficient review and feedback by elected faculty and student representatives with a sufficiently broad set of expertise and academic backgrounds (all faculties).
- 3) The Credentials Framework Report<sup>2</sup> recommends the creation of a Senate committee for the consideration and recommendation (to Senate) of alternative credentials, which seems to be a limited scope for a Senate sub-committee. By incorporating this responsibility and corresponding roles directly into the proposed SAIC this recommendation is achieved without the introduction of additional Senate committees.

The creation of SAIC demonstrates the University's long-term, structured commitment to Academic Innovation. Its positioning as a standing committee of Senate emphasizes the importance and value that Waterloo places on this activity.

### **Jurisdictional Information**

Section 22 of the University of Waterloo Act, 1972 empowers Senate:

(m) to create councils and committees to exercise its powers;

### **Governance Path**

Senate Graduate Council: January 21, 2026

*Prospective:*

Senate Undergraduate Council: February 4, 2026

Senate Executive Committee: TBD

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<sup>4</sup> <https://uwaterloo.ca/waterloo-budget-plan/innovation-action/academic-innovation-working-group>

<sup>5</sup> Alternative Credentials Approval Process (attached documentation)

Senate: TBD

**Documentation Provided**

- Senate Academic Innovation Committee Proposed Terms of Reference
- Alternative Credentials Approval Process (June 2021)

# Proposed Terms of Reference: Senate Academic Innovation Committee<sup>1</sup>

## 1 Committee Establishment and Mandate

- 1.1 The Senate Academic Innovation Committee is a sub-committee of the Senate Undergraduate and Graduate Councils (SUC and SGC) and is established in accordance with the University of Waterloo Act.
- 1.2 The committee serves as the primary forum within Senate to explore improvements to academic program delivery with an equal focus on efficiency, quality, and viability.
- 1.3 The committee also makes recommendations to the SUC and SGC regarding all matters associated with alternative (non-credit) credentials.

## 2 Membership

- 2.1 The membership of the committee shall consist of the following:

### 2.1.1 Ex-officio

- 2.1.1.1 Associate Vice-President, Academic, who shall chair the committee
- 2.1.1.2 Associate Vice-President, Graduate Studies and Postdoctoral Affairs
- 2.1.1.3 Associate Vice-President, Indigenous Relations or designate
- 2.1.1.4 Associate Vice-President, Equity, Diversity, Inclusion and Anti-Racism or designate

### 2.1.2 Appointed by Senate

- 2.1.2.1 Six elected faculty members of Senate, one from each faculty
- 2.1.2.2 One elected faculty member of Senate from the Affiliated and Federated Institutions of Waterloo
- 2.1.2.3 Two elected undergraduate student members, one of whom shall be the Undergraduate Student Association President or designate
- 2.1.2.4 Two elected graduate student members, one of whom shall be the Graduate Student Association President or designate
- 2.1.2.5 One appointed alumni member of Senate
- 2.1.2.6 One appointed member from the board of directors of the Faculty Association of the University of Waterloo

- 2.1.3 For members appointed under section 2.1.2., the aim is to have broad and inclusive representation from all Faculties. Appointments shall be made in accordance with regular Senate nominating processes.

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<sup>1</sup>Note that portions of these draft Terms of Reference are directly based on:

<https://uwaterloo.ca/waterloo-budget-plan/innovation-action/academic-innovation-working-group>  
<https://uwaterloo.ca/waterloo-budget-plan/innovation-action/academic-innovation-working-group/terms-of-reference>  
in compliance with Policy 73 section 3.A.

### **3 Responsibilities**

- 3.1 The Committee shall have the following responsibilities:
  - 3.1.1 Review and make recommendations on academic and administrative decisions with a focus on efficiency, quality, and viability.
  - 3.1.2 Request, consider, and review information and evidence for Senate and its committees to support effective academic decision making.
  - 3.1.3 Make recommendations to SUC and SGC regarding the development and improvement of academic policies, guidelines, and procedures with a focus on efficient, high quality, and viable academic program delivery.
  - 3.1.4 Facilitate cross-campus collaboration to share best practices and make recommendations to Senate regarding unified approaches for efficient, high quality, and viable academic program delivery.
  - 3.1.5 Conduct university community consultations with faculty, staff, and students regarding academic practices and develop yearly summaries to present to Senate and to inform the Board of Governors.
  - 3.1.6 Conduct environmental scans of academic innovation activities at comparator and competitor institutions and develop yearly summaries to present to Senate and to inform the Board of Governors.
  - 3.1.7 Make recommendations regarding proposals for alternative credentials, including micro credentials.
  - 3.1.8 Make recommendations and establish rules and procedures for the development and approval of alternative credentials.
  - 3.1.9 The committee shall review its terms of reference on an annual basis and make recommendations to Senate thereon. A comprehensive review shall be undertaken every five years.

### **4 Meetings**

- 4.1 The Committee shall normally hold at least 10 regular meetings each year, to be scheduled in the period from September to June.
- 4.2 Special meetings may be called by the chair of the Committee.

# Alternative Credentials Approval Process

June 1, 2021

Compiled by Dave DeVidi, AVPA

In consultation with Secretariat, AVPGSPA, various stakeholders

The commitments the University makes in the Strategic Plan around Life-Long Learning, and especially the rapid development of WatsPEED, have brought into focus questions about the governance of non-degree credentials, and in particular of credentials that do not result in academic credits that might count towards degrees. (Terminology is not used consistently, here or elsewhere, to pick out the types of credentials in question. We will use “non-credit” and “alternative credentials” to refer to programming that does not result in credentials or credits that could count towards degrees and so which are approved by the well-known channels leading from Faculty Councils to Senate Councils to Senate. As will be described below, Senate has also previously ruled that programming sufficiently like credit courses must be approved by Senate, so by non-credit we mean, roughly, *sufficiently unlike courses that lead to credits* so they do not require Senate approval. Professional development courses as have been offered for some decades by the Centre for Extended Learning are a paradigm example.)

The University has long granted “non-credit” credentials, but the process for their approval is neither very well-known nor very systematic. For any such credential to warrant approval to proceed, there are both “business questions” and academic questions. The notes below are only intended to address the latter, and in particular are intended as a step towards setting processes in place that will allay concerns about good academic governance and protection of the University’s reputation that might be raised by the sudden expansion of the University’s non-credit offerings. As noted below, this document describes interim processes, until a fuller adaptation of the academic governance processes can be implemented to deal with a range of changes currently underway.

## Contextual Notes:

- Investigation by the Secretariat has shown that since as early as 1973, non-credit certificate programs have not required approval by the usual Senate mechanisms. At that stage, authority for approving these offerings was delegated to the academic departments or Faculties responsible for the program. In 2003, Senate approved a recommendation regarding definition of and approval processes for diplomas and certificates, which, among other things, distinguishes between certificates of completion/participation, and certifications and diplomas made up of “non-degree credit courses”, i.e. those approximating the length and content of a 0.5 unit on-campus courses, excluding ‘interest’ courses offered by (CEL). Non-degree credit courses require Senate approval, and do credentials made up of several of them. **That is, the kinds of programming that do not require Senate Approval are certificates of completion/participation, and “interest courses” of the sort offered by CEL, which do not “approximate the length and content of a 0.5 unit on-campus course.”** While the terminology is unfortunate, we will distinguish

here between “non-degree credit” courses, i.e. credit courses that are not part of a degree program (or courses that are enough like credit courses), which do require Senate approval, and “non-credit credentials”, which generally do not.

- Since as early as 1963, there has been a unit responsible for adult/extension/distance/continuing education (now, CEL), and an academic leader to which the unit reports (currently the AVPA) who is responsible for programming and coordinating with academic units on programming (though, of course, day-to-day the coordination has long been handled by staff within the unit). In 1973 and 2005 the records show that the individual responsible for these activities was to be advised by council or committee (in the early years a committee or subcommittee of Senate) with representation from the Faculties. In 1973 and 2005, recommendations were made to establish a policy or standards for the continuing education programs, and for CEL to act as a point of coordination for initiating, gaining approvals and advertising these programs. Because non-credit courses fell outside of Senate’s jurisdiction, the only references in Senate records to continuing education activities post-2003 are in reference to strategic plan initiatives or informational updates by the unit’s director. By observing the operations of CEL since that time, it appears that the 2005 recommendations of the Secretariat were put into action, but there is no Senate record of what was decided with respect to specific recommendations around approval of non-credit offerings.
- The exception to requiring Senate approval in 2003 was fairly narrowly written: any certificate that involved credit courses needs to go to Senate, as do “courses” that “approximate the length and content of 0.5 unit on campus courses”. The wording of the exception was: “this excludes ‘interest’ courses such as *Learning to Use your PC*” offered by [CEL]” *I take it that credentials that bundle together a number of “interest” courses (i.e. that involve substantially less than a full 0.5 credit course) fall under this exception, and propose following this interpretation until we can go to Senate once we have further developed our processes, as described below.* And certificates of completion/participation do not need to go to Senate.
- Going to Senate for discussion and approval of a more systematic approach to approval of non-credit offerings in the medium term is not avoidable. Recent directives from the Quality Council require that we specify how “microcredentials” are approved and monitored for quality in our Institutional Quality Assurance Framework, which must go to Senate.
- Moreover, the University is at work on a broader “credential framework” that will cover various sorts of microcredentials, not all of which will be in the WatSpeed remit. The goal will be to create an efficient but academically suitable method for approval of all such credentials, including WatSpeed credentials, and to take it to Senate for information and discussion in due course.
- The proposal below is an adaptation of what has been used in the recent past by the AVPA to approve non-credit offerings such as CEL Professional Development programming that offers a Waterloo credential.
- What is at issue in the approvals described here is the academic credibility/worth of proposed non-credit credentials, not whether offering them makes financial sense. Financial questions are handled via a separate mechanism, and the people involved in the decisions

described here will be expected to divorce their academic judgement from, for instance, their perceptions of financial interests of their unit.

- **While all the proposals to be considered are *non-credit*, for the present we distinguish between “certificates of participation” and (for want of a better term) “assessment certificates.”** (WatSpeed, for instance, does not want only to offer certificates of participation, but also credentials that indicate a level of achievement in a particular “area of interest”, though the credentials are made up of “interest courses” considerably less involved than 0.5 credit academic courses, and so are eligible for approval via this mechanism.) (Within the “achievement” category, we will also distinguish between certificates of *completion* and, for lack of a better term, of *achievement*, as this is an important distinction for some organizations that want to partner with Waterloo.) Which sort of credential someone is getting will be clearly indicated on their certificate, and different questions need to be answered to evaluate whether either sort of University of Waterloo certificate is warranted. Finer distinctions than just these two broad categories may be needed in the future.
- This document is intended as a starting point, and processes will evolve in light of experience as the committee carries out its work. What the committee learns will also inform the more general credential framework that will find its way to Senate in due course.

### **The Alternative Credentials Approval Committee**

1. Name: In the past, this committee was called the Professional Development Advisory Committee. I suggest that we now call it the *Alternative Credentials Approval Committee*, because, for instance, the addition of approving WatSpeed offerings makes the previous name obsolete.
2. The same committee will, with appropriate tweaks, also approve other non-credit credentials which might arise from WatPD, CEL PD, or elsewhere. As noted below, it will also have some role in ensuring that the quality of offerings is appropriately monitored, though how this will work remains to be worked out.
3. Membership:
  - a. AVPA, as Chair
  - b. One representative from each Faculty, appointed by the Dean (normally the AD Life-Long Learning, or whatever corresponds to that role in the Faculty)
  - c. The AVPGSPA when what is in question is approval of Watspeed or other credentials where the content is at a post-graduate level,
  - d. Non-voting resource people: For WatSpeed, a WatSpeed delegate; for WatPD proposals, the WatPD director; for CEL PD proposals, the CEL Director.
  - e. Other non-voting resource people: CTE experts when pedagogical questions arise, Registrar’s Office representatives when credentials that might appear on a transcript are in question, etc., as appropriate. We will ask such members to be available to answer questions from committee members and to provide advice as appropriate, but generally will work to not have this committee become an onerous burden for them.

## **General Committee Processes**

- The committee will work as much as possible asynchronously and electronically (to begin with, primarily in TEAMS) for the sake of efficiency. The committee's work is likely to be too sporadic to warrant frequent regularly scheduled meetings for sufficiently rapid decision-making, and ad hoc meetings would be difficult to arrange given the schedules of the people involved, (This process is of course subject to reconsideration once the practice is up and running.) Early experience will help us set realistic timelines for submission or proposals, decisions, and the like, which will be helpful for those designing proposals and building partnerships.
- Materials will be circulated to committee members (e.g., by depositing them on a Teams site that all members have access to), and a time set by which electronic discussion (e.g., asking for clarification from resource members of the committee) will be completed.
- If it is clear that a topic is contentious, the Chair will schedule a meeting for discussion before any vote takes place. Members of the committee can request that a meeting be scheduled. We anticipate that this will not usually be required.
- In the normal course of things, after the discussion deadline passes, the Chair will call for an electronic vote, with votes to be cast within 48 hours.
- The committee members representing the Faculty(s) involved in a proposal will not vote on the proposal. The usual Senate Committee rules with respect to conflict of interest will also apply.
- While a majority vote is sufficient, the committee will seek consensus or at least a considerable majority on one side or the other. If the vote is close, the Chair may, at their discretion, call for a meeting to discuss issues further.
- In the event of a tie, the Chair will hold a casting vote. In general, though, that a vote is a tie will be taken to indicate that there are serious enough problems that warrant adjustment to a proposal, so the presumption is that this vote will often be negative. (Technically, the committee is advisory to the AVPA anyway, so this process bullet is just being explicit about how "advisory" works out in practice ... the AVPA will generally leave the decision to colleagues but retains the authority to break ties.)

## **Alternative Credentials Approval Processes**

### **Approval in principle**

Generally, WatSpeed offerings will involve external partners. WatSpeed has indicated that a stage of "approved in principle" would be useful for their purposes so that they can be confident that they are not wasting their time pursuing an idea likely to be rejected for reasons that could have been anticipated in advance. (There are obviously reputational costs in a University unit signing agreements with partners only to have them fall apart at a later stage.)

My understanding is that what WatsPEED needs at the approval-in-principle stage is sufficient assurance "that Waterloo offering a non-credit credential of this sort, developed by these people, and working with these partners (or aiming at these clients/students) is compatible with preserving or improving the academic reputation of the University." The job is not to

determine whether the project would be viable financially, etc., as it is job of WatSpeed and the Faculties to work out answers to those questions.

We need a standard template that asks for relevant information that will allow the committee to make good decisions at this stage. Given the need for ability to quickly launch and adapt such programs in response to changing market demands and given the relatively low resource and reputational risk to the university compared to the launch of a new degree program, this template can be much simpler than the one required for approval of a new degree program by Senate. For instance, it might include:

### **Approval in Principle Template**

Title of Program/Course/Credential (henceforth, we just say “program”)

What is the purpose of the program?

Who will develop the program? (list all partners involved in developing content, including departments, schools, and Faculties, support units, or external partners. Briefly indicate their roles in the project, and explain why those involved have sufficient subject matter expertise to produce a program of high quality)

Type of program

- Will those who complete the program receive an attendance/participation or an assessment (i.e. completion or accomplishment) certificate?
- Briefly describe the anticipated structure of the offering (is it a single session? A course of a few sessions? A series of courses? F2F, online or hybrid? Etc.)

In what ways does this program advance the mission or strategic goals of the University? How does it align with the academic strengths of the Department/unit involved in its development? Who will be the audience for the offering and how many enrolments are anticipated?

Confirmation of approval to develop from all Waterloo units involved (i.e., Chairs and Deans, Directors of support units, as appropriate).

For attendance/participation certificates, only approval in principle is required; the judgement here is that the level of reputational risk involved is sufficiently low that it is appropriate to leave further “quality control” issues in the hands of those delivering the programming.

### **Approval to Proceed Template**

Our colleagues on campus will be much more accepting of WatSPEED and of other non-credit but assessed credentials, and we can be extra sure of our due diligence, if we also have a stage where the committee affirms that the program as developed is suitably close to what was approved in principle, and that as developed it will be of sufficient quality to deserve a Waterloo credential. This is the reason for a second stage of approval, after further development has been done by those involved in the project.

Name of Program, purpose of program, partners, etc., as in the in-principle template, noting what if anything has been modified

Course Descriptions, including

- Course author(s) and credentials
- Contact hours, etc.
- Intended Learning Outcomes
- Assessment methods If applicable

Evaluation Plan: how do we gauge the satisfactoriness of the offering going forward? (WatSPEED intends to gather participant feedback and share it with those delivering the programming. Just as new degree programs undergo a 2-year review, for assessment programs, the evaluation plan at the time approval is sought should include sharing a report with the committee that addresses this feedback, other indicators of the quality of the offering as appropriate, and steps taken to address any problems identified. There may be reasons to do the review at either one year or two years.)