

CS GRADUATE STUDENT ORIENTATION

Winter 2025
Part One



UNIVERSITY OF
WATERLOO

FACULTY OF
MATHEMATICS



School of Computer Science leadership



Raouf Boutaba
Director of the School



Khuzaima Daudjee
Director of Grad Studies

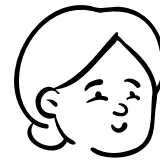


Shane McIntosh
Assoc. Director of Grad Studies

Staff



Denise Shantz
Graduate Studies Manager



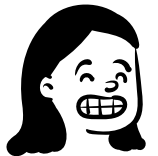
Makenna Ryder
Graduate Coordinator, TA & Scholarships



Nadine WitmerZinger
Graduate Coordinator, PhD Programs



Cecilia MartinGrant
Graduate Coordinator, MMath Programs



Amy Todd
Graduate Coordinator, Admissions & Scheduling

Other important contacts

Your supervisor

- Admitted you to the program
- Provides your graduate research studentship (GRS)
- Guides you in your research
- Helps you with course selection

Graduate advocates

- Help with matters of concern that are directly related to your graduate program that are inappropriate to discuss with your supervisor
- Currently: Kate Larson & Richard Trefler

Please reach out to your supervisor if you haven't already!

There are two parts to our orientation

Part One

(Today, virtual)

1. Course enrolment
2. Understanding your funding
3. Key upcoming dates

Part Two

(1st week of term, in-person)

1. Further program updates/considerations
2. Understanding Cheriton's support for grad students, including guest talks from:
 - Cheriton SCS Grad Directors
 - CS Computing Facility
 - Library Services
 - CS Grad Student Association
 - Instructional Support Group (TA)

COURSE ENROLMENT

What to consider when choosing your courses

**SUPERVISOR
RECOMMENDATIONS**

**COURSE
REQUIREMENTS**

**COMPREHENSIVE-I
REQUIREMENTS**

What to consider when choosing your courses

SUPERVISOR RECOMMENDATIONS

Before making a decision on your course load, ensure you speak to your supervisor first!

COURSE
REQUIREMENTS

COMPREHENSIVE-I
REQUIREMENTS

What to consider when choosing your courses

SUPERVISOR RECOMMENDATIONS

Before making a decision on your courseload, ensure you speak to your supervisor first!

COURSE REQUIREMENTS

The basic requirements for coursework in both MMath and PhD programs.

A function of **course numbers** and **course area/category**.

COMPREHENSIVE-I REQUIREMENTS

A guide to Waterloo's course numbering system

Course number	Level	Description
CS 100 to 400	Undergraduate	Not open to graduate students except as remedial or extra courses
CS 600	Graduate	Held with a 400-level undergraduate course. Same classroom, same lectures, but extra work for graduate students.
CS 700	Graduate	Standard core graduate subjects Typically fixed curriculum Lecture based Assignments/exams/projects
CS 800	Graduate	Research-oriented topic courses Reading/analysis of 20 to 40 research papers Projects May vary offering to offering May be able to count two offerings of the same course number – IF they have different topic titles (<i>you'll need to use a course drop/add form if taking them in the same term</i>)

Each course also fits within a category and area

Category	Area
Computing and Technology	Software Engineering
	Programming Languages
	Hardware and Software Systems
Mathematics of Computing	Algorithms and Complexity
	Scientific and Symbolic Computing
	Computational Statistics
	Quantum Information and Computation
Applications	Artificial Intelligence
	Databases
	Graphics and User Interfaces
	Bioinformatics
	Health Informatics

Non-CS courses

To meet course requirements, most of your courses must be in CS. To have a non-CS course count towards your degree, the following must be true:

- You have permission from the course instructor, host department, and recommendation of your supervisor;
- The course has CS content;
- The course is on the [list of approved non-CS courses](#) on the CS website;
 - If not on the approved non-CS course list, prior approval from the Graduate Director must be granted. Please email the Graduate Director the course outline, reference materials, grading basis, and supervisor recommendation.

Master's course requirements

Program	Total	600-level	800-level	Per Area	Non-CS courses (pre-approved)
Thesis	4	Maximum of 1	Minimum of 1	No more than 2	Maximum of 1
Research Paper	7	Maximum of 3	Minimum of 2	No more than 3	Maximum of 2

Generally speaking...

- Plan to complete two courses per term starting your first term until course requirements are complete
- Remedials do not count towards your course requirements (unless stated in your offer) but do count towards your CGPA

PhD course requirements

Program	Total	600-level	800-level	Non-CS courses (pre-approved)
PhD from Master's	4	Maximum of 1	Minimum of 1	Maximum of 1
PhD from Bachelor's	8	Maximum of 3	Minimum of 3	Maximum of 2

Generally speaking...

- Plan to complete at least two courses per term starting your first term until course requirements are complete
- Remedials do not count towards your course requirements (unless stated in your offer) but do count towards your CGPA

What to consider when choosing your courses

SUPERVISOR RECOMMENDATIONS

Before making a decision on your courseload, ensure you speak to your supervisor first!

COURSE REQUIREMENTS

The basic requirements for coursework in both MMath and PhD programs.

A function of **course numbers** and **course area/category**.

COMPREHENSIVE-I REQUIREMENTS

An additional requirement for PhD students only. Ensures a student has a broad foundation of Computer Science for future research

Separate from course requirements!

Comp-I: Coverage of 6 areas, at least 1 from each category

Category	Area
Computing and Technology	Software Engineering
	Programming Languages
	Hardware and Software Systems
Mathematics of Computing	Algorithms and Complexity
	Scientific and Symbolic Computing
	Computational Statistics
	Quantum Information and Computation
Applications	Artificial Intelligence
	Databases
	Graphics and User Interfaces
	Bioinformatics
	Health Informatics



Student has satisfied coverage of both areas and categories

Comp-I: Coverage of 6 areas, at least 1 from each category

✗ Missing one category

Category	Area
Computing and Technology	Software Engineering
	Programming Languages
	Hardware and Software Systems
Mathematics of Computing	Algorithms and Complexity
	Scientific and Symbolic Computing
	Computational Statistics
	Quantum Information and Computation
Applications	Artificial Intelligence
	Databases
	Graphics and User Interfaces
	Bioinformatics
	Health Informatics

✗ Less than 6 areas

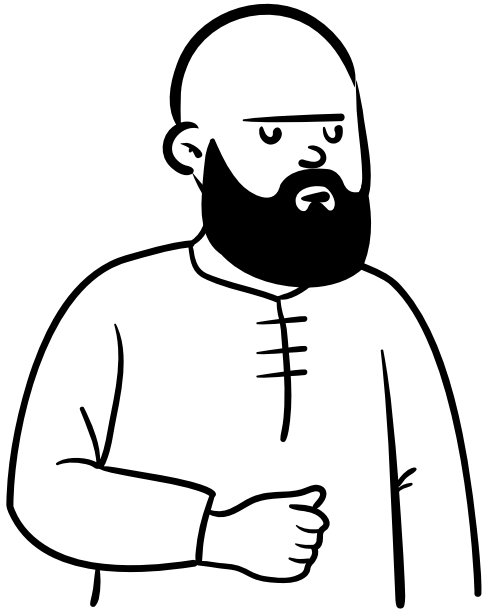
Category	Area
Computing and Technology	Software Engineering
	Programming Languages
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Mathematics of Computing	Algorithms and Complexity
	Scientific and Symbolic Computing
	Computational Statistics
	Quantum Information and Computation
Applications	Artificial Intelligence
	Databases
	Graphics and User Interfaces
	Bioinformatics
	Health Informatics

Further requirements to satisfy Comp-I

The courses used to satisfy the Comp-I must:

- Have marks of at least B+ (78% or above);
- Be graduate courses or advanced undergraduate courses (ie. 400-level);
 - Undergraduate courses at 300-level or below will not be accepted!
 - Non-UW courses will be evaluated by the Grad Director and Grad Committee. Please submit a course syllabus to determine area eligibility.

A reminder: Comp-I submission



Please submit the Comp-I report early!

By the end of your first month in PhD study, you should submit your report to your graduate coordinator at csphd@uwaterloo.ca.

Make sure you plan your courses carefully so that the Comp-I is satisfied.

FINAL COURSE ENROLMENT REMINDERS

1. **Grad course offerings can be found online:**

- Check the Schedule of Classes/Quest for class details
- Check the Course Offerings page for course list and areas

2. **Enroll in CS graduate courses online using Quest – starts the month before term**

- Do not enrol in more than the courses you will be taking. We monitor for students enrolled in more than three courses.

3. **Drop deadline is three weeks into term**

UNDERSTANDING YOUR FUNDING

Your funding includes up to three sources:

**GRADUATE RESEARCH
STUDENTSHIPS (GRS)**

**TEACHING
ASSISTANTSHIPS (TA)**

SCHOLARSHIPS

Your funding includes up to three sources:

GRADUATE RESEARCH STUDENTSHIPS (GRS)

Paid by:
Your supervisor

How you receive payment:
Lump sum at the beginning of each term through Quest

Responsibilities:
Research-based responsibilities determined by supervisor

Tax considerations:
Not taxed

TEACHING ASSISTANTSHIPS (TA)

SCHOLARSHIPS

Graduate research studentships (GRS)

Please note: your GRS will fluctuate in amount each term depending on how many TA units you have.

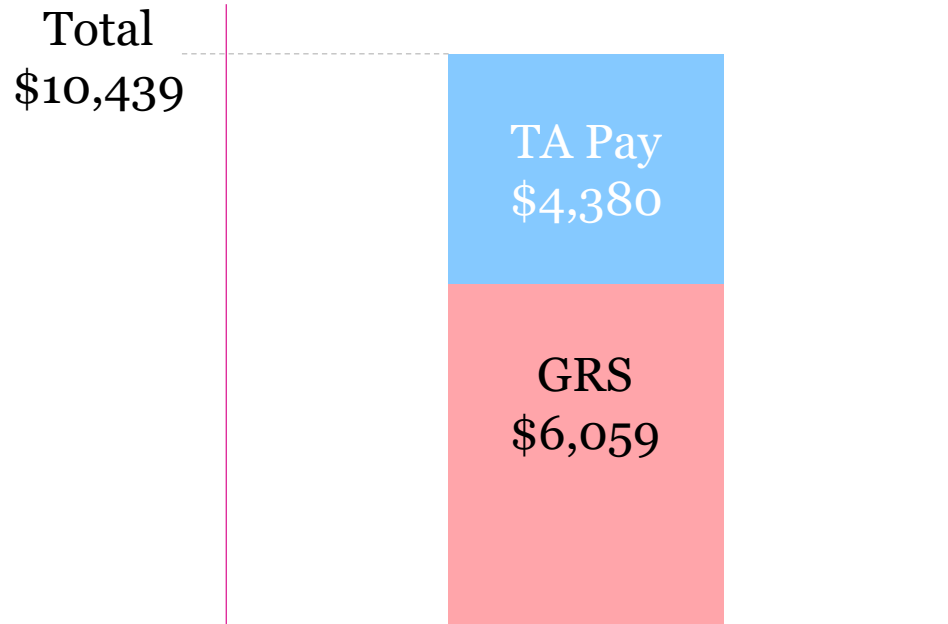
- In terms with one TA unit: you will receive a base GRS
- In terms with two TA units: your GRS is reduced as your TA income doubles

This ensures your GRS + TA base pay remains the same each term, despite how many TA units you have.

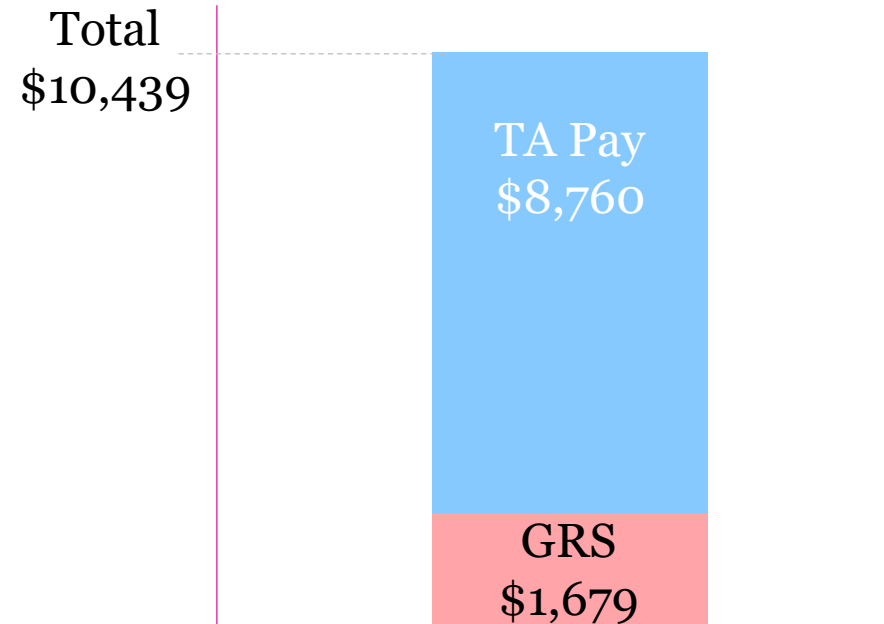
Make sure your banking info is updated in Quest to receive payment when term starts!

Your TA pay and GRS funding will be balanced each term:

In terms with one TA, your GRS will be higher, and your TA pay will be lower



In terms with two TAs, your GRS will be lower, and your TA pay will be higher



*This example is specifically international PhD student funding

Your funding package includes up to three sources:

GRADUATE RESEARCH STUDENTSHIPS (GRS)

Paid by:
Your supervisor

How you receive payment:
Lump sum at the beginning of each term through Quest

Responsibilities:
Research-based responsibilities determined by supervisor

Tax considerations:
Not taxed

TEACHING ASSISTANTSHIPS (TA)

Paid by:
The university

How you receive payment:
Last Friday of each month, through Workday

Responsibilities:
Outlined in TA contract and via instructor expectations

Tax considerations:
Subject to taxes and statutory deductions

SCHOLARSHIPS

Teaching assistantships are guaranteed to full-time thesis PhD and MMath students

MMath students usually have four TA units in their 1st year, and three TA units in their 2nd year:

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
E.g. # of TA's	1 TA unit	2 TA units	1 TA unit	1 TA unit	1 TA unit	1 TA unit

PhD students have four TA units in each year:

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	...
E.g. # of TA's	1 TA unit	1 TA unit	2 TA units	1 TA unit	1 TA unit	2 TA units	...

TA allocations vary term to term. Your TA pattern may not match this example exactly.

One TA unit = 5 hours/week (or 80 hours/term)

Action items for your TA-ship:



- 1. Check your TA assignment on Odyssey**
- 2. Read and sign your TA contract.**
We cannot hire you as a TA until this is signed!
- 3. Contact the instructor or Instructional Support Coordinator (ISC) for your assigned course.**
If an ISC is assigned to your course, that is your point of contact.

TA trainings in your first month at UW

- 1. In-person training from the CS Grad Department**
How to grade assignments, your duties as a TA. Date TBD but will be in first or second week of classes.
- 2. Online workplace trainings**
Completed through LEARN. More details to come at Part Two Orientation
- 3. Information session on TA preference forms**
In your subsequent terms at UW, you will need to complete a preference form to TA. This session will cover this process so you're prepared for Term 2.0 and beyond.

Strive to be an exceptional TA!

Being a TA is both a privilege and a responsibility.

Please ensure you are meeting the duties outlined in your contract and by your ISC/course instructor, and attending TA meetings.

- Poorly performing TA's will not get future TA-ships, which reduces their funding.
- Exceptional TA's are eligible for a TA award each year.

Your funding package includes up to three sources:

GRADUATE RESEARCH STUDENTSHIPS (GRS)

Paid by:
Your supervisor

How you receive payment:
Lump sum at the beginning of each term through Quest

Responsibilities:
Research-based responsibilities determined by supervisor

Tax considerations:
Not taxed

TEACHING ASSISTANTSHIPS (TA)

Paid by:
The university

How you receive payment:
Last Friday of each month, through Workday

Responsibilities:
Outlined in TA contract and via instructor expectations

Tax considerations:
Subject to taxes and statutory deductions

SCHOLARSHIPS

Paid by:
The university or external org

How you receive payment:
At the beginning of each term through Quest.

Responsibilities:
Continue to meet eligibility requirements as outlined in your offer

Major scholarships

Natural Science and Engineering Research Council Scholarships (NSERC)

- Available to Canadian and Permanent Residents only
- Deadlines for applications:
 - PhD students: October
 - MMath students: December

Ontario Graduate Scholarship (OGS)

- Open to all students; only a small number for international students
- Deadlines for applications:
 - International students: February 1
 - Domestic students: February 1

You are strongly encouraged to apply if you hold a GRS and are eligible (average over 85%)!
Please check our bi-weekly newsletter for updates on scholarships!

Cheriton scholarships

- Open to all PhD students within program limits with an 80% average
- Three to five awarded each term (subject to availability)
- \$10,000 per year for one or two years
- Call for nominations near the middle of the term

Please check our bi-weekly newsletter for updates on scholarships!

If you are running low on funds

- Talk to your supervisor first
- There are some funds available to help those in financial distress

KEY UPCOMING DATES

Key upcoming dates:

COURSE ENROLMENT

**FEES ARRANGED
DEADLINE**

Key upcoming dates:

COURSE ENROLMENT

FEES ARRANGED
DEADLINE

Begins:

December 2, 2024

Ends:

January 26, 2025

From Jan 27 to Mar 23, you can drop classes in Quest – however, they will remain on your transcript as a WD.

Important links for course enrolment

- [Schedule of Classes](#)
Check here for times/dates of classes
- [Current course offerings](#)
Check here for areas of offered classes
- [Search for a class in Quest](#)
Find the classes you wish to take and view the class instructor
- [Enroll in Quest](#)
You can add or drop classes in Quest from Dec 2 to Jan 26.

Key upcoming dates:

COURSE ENROLMENT

**FEES ARRANGED
DEADLINE**

Deadline:

December 12, 2024

Payments and Promissory Notes received after the term due date will result in a Fees Arranged Extension Fee charged to your student account.

What is the fees arranged deadline?

Need to be “fees arranged” by this deadline, meaning:

a) You have paid your tuition out-of-pocket;

OR

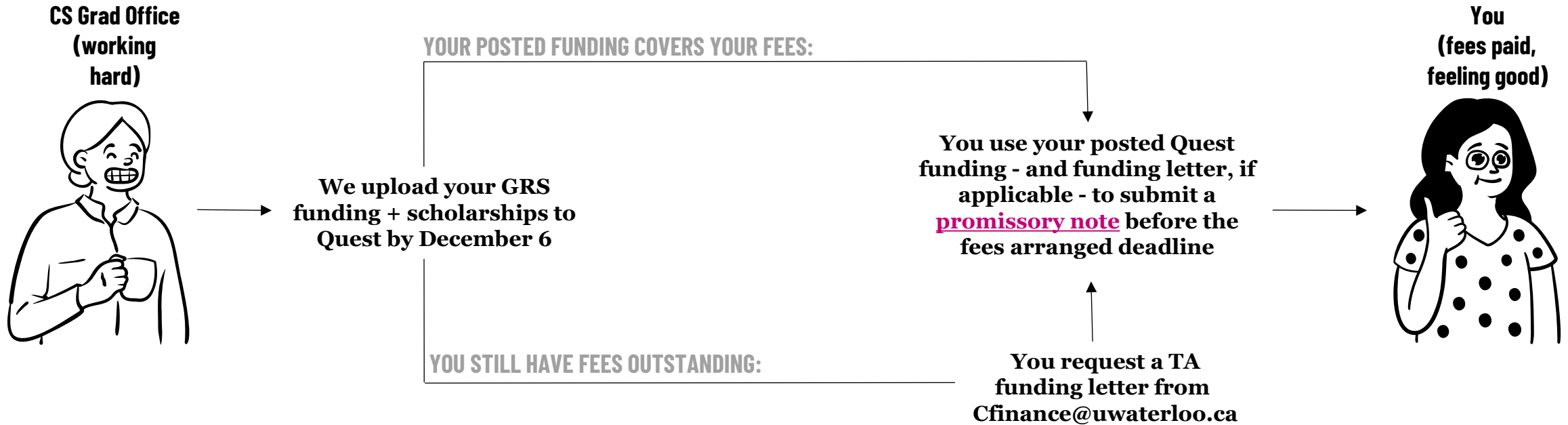
b) You have submitted a promissory note to commit your future funding for that term to your tuition

What is a promissory note?

A promissory note tells the University "I would like to apply the funding I'm receiving from my TA/GRS/scholarships towards my tuition and fees."

Your funding is **NOT** automatically applied to your tuition or fees.
You **MUST** submit a promissory note if you wish to use your funding for tuition.

How the promissory note process works:



If you're using a promissory note, be aware of the timeline:

CS Grad Office uploads approved funding (except TA-ships) to Quest

If your uploaded funding covers your tuition balance, you can now submit your promissory note. Email CFinance if you have balance owing.

If you do not have funding in Quest, email CFinance

We will help resolve any funding issues at this time.



Please contact cfinance@uwaterloo.ca by Monday, December 9th at the latest if you still have no funding posted in Quest.

Questions?

PhD program

csphd@uwaterloo.ca

MMath program

csmaster@uwaterloo.ca

Funding

cfinance@uwaterloo.ca

Scholarships & TA questions

mrydr@uwaterloo.ca

Deferrals/matriculation

csadmiss@uwaterloo.ca

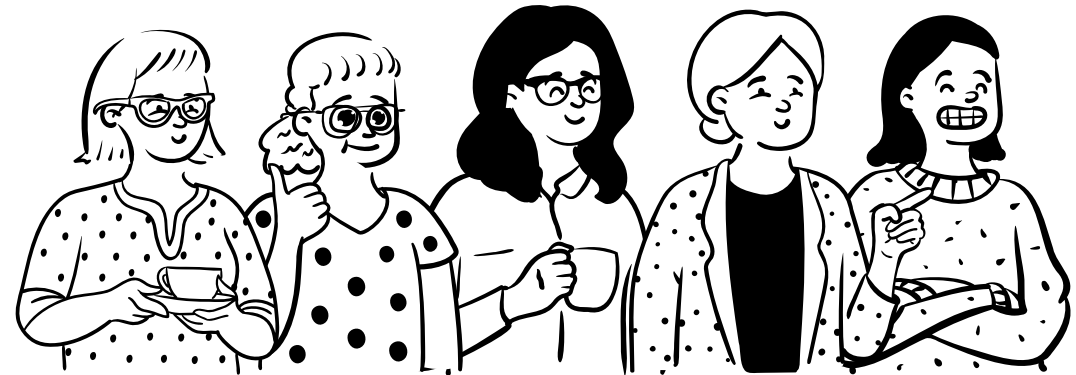
CS Grad Office Manager

cmanager@uwaterloo.ca

Other inquiries?

cs-gradoffice@uwaterloo.ca

If you're ever in doubt, do not hesitate to reach out to the CS Grad Office!



UNIVERSITY OF
WATERLOO



**DAVID R. CHERITON SCHOOL
OF COMPUTER SCIENCE**

Welcome new students!

Appendix A: Deferrals

Who can apply for a deferral?

Deferrals are only provided for students with a reason beyond their control.

For e.g.:

- Student permit delays
- Medical emergencies
- Delays in completing undergraduate/graduate degree

Process for obtaining a deferral?

First, please discuss the deferral with your supervisor. You will need their approval.

Please email csadmiss@uwaterloo.ca with the following information before the beginning of term:

- Term you wish to defer to
- Reason for deferral

You will need to have satisfied any conditions on admission to defer (aside from those that can only be completed after starting your program).

Appendix B: Matriculation

If I haven't matriculated yet, how will this impact my first term at UW?

You must be matriculated before accessing the following:

- UW email
- Course enrolment in Quest
- GRS funding
- Being hired as a TA

If you've not matriculated, please ensure you let csadmiss@uwaterloo.ca and gradadmissions@uwaterloo.ca know when you expect to matriculate (if you haven't already).

Fees arrangement and matriculation

Your fees/tuition will not be posted until you have matriculated.

If you matriculate before the August 20 deadline:
Ensure you complete your promissory note ASAP – email cfinance@uwaterloo.ca if your funds aren't posted.

If you matriculate after the August 20 deadline:
If there are no tuition charges on your student account until on or after the term due date, you will have 14 days to show as Fees Arranged on Quest without incurring a [fees arranged extension fee](#).