Graduate Orientation

Justin Wan, Director of Graduate Studies
Faculty

• Mark Giesbrecht, Director of the School
• Justin Wan, Director of Graduate Studies
• Eric Schost, Associate Director of Graduate Studies
• Richard Trefler, MMath Coursework Advisor
• Naomi Nishimura, Jesse Hoey, Graduate Advocates
Staff

• Denise Shantz, *Graduate Studies Supervisor*

• Loc Do, *Graduate Coordinator (PhD)*

• Jo-Ann Hardy, *Graduate Coordinator (Master)*

• Onkar Sehmi, *Graduate Services Assistant*
Research-based Students

• PhD, MMath – thesis/paper option

• Your supervisor
  o admitted you to the program
  o provides your research assistantship (RA)
  o guides you in your research
  o helps you with course selection

• Contact your supervisor as soon as possible
Course-based Students

• MMath – coursework option, DS specialization

• Richard Treffler is your advisor. He can
  o help you with course selection
  o answer questions about your program
Graduate Courses

• Course numbering
  o CS 100 — 400
  o CS 600
  o CS 700
  o CS 800
CS 100 – 400

• Undergraduate courses

• Not open to graduate students except as a remedial or extra
CS 600

- Usually held with a 400-level undergrad course
- Same classroom, same lectures, but extra work for graduate students
CS 700

• Typically fixed curriculum
• Lecture based
CS 800

• Research oriented topics courses
• Reading/analysis of 20-40 research papers
• Projects
• May vary offering to offering
• May be able to count two offerings of the same course
## Categories and Areas of Courses

<table>
<thead>
<tr>
<th>Category</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computing and Technology</td>
<td>Software Engineering</td>
</tr>
<tr>
<td></td>
<td>Programming Languages</td>
</tr>
<tr>
<td></td>
<td>Hardware and Software Systems</td>
</tr>
<tr>
<td>Mathematics of Computing</td>
<td>Algorithms and Complexity</td>
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<tr>
<td></td>
<td>Scientific and Symbolic Computing</td>
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<tr>
<td></td>
<td>Computational Statistics</td>
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<tr>
<td></td>
<td>Quantum Information and Computation</td>
</tr>
<tr>
<td>Applications</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td></td>
<td>Databases</td>
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<tr>
<td></td>
<td>Graphics and User Interfaces</td>
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<tr>
<td></td>
<td>Bioinformatics</td>
</tr>
<tr>
<td></td>
<td>Health Informatics</td>
</tr>
</tbody>
</table>
**Master’s Course Requirements**

<table>
<thead>
<tr>
<th>Program</th>
<th>Total</th>
<th>600-level</th>
<th>800-level</th>
<th>per area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis</td>
<td>4</td>
<td>≤ 1</td>
<td>≥ 1</td>
<td>≤ 2</td>
</tr>
<tr>
<td>Research paper</td>
<td>7</td>
<td>≤ 3</td>
<td>≥ 2</td>
<td>≤ 3</td>
</tr>
<tr>
<td>Coursework</td>
<td>8</td>
<td>≤ 3</td>
<td>≥ 2</td>
<td>≤ 4</td>
</tr>
</tbody>
</table>

- Plan to complete at least 2 courses per term (3 for MMath coursework) until course requirements are complete.
- Coursework(Data Science): see details on CS Grad web pages.
## PhD Course Requirements

<table>
<thead>
<tr>
<th>Program</th>
<th>Total</th>
<th>600-level</th>
<th>800-level</th>
</tr>
</thead>
<tbody>
<tr>
<td>PhD from master’s</td>
<td>4</td>
<td>≤ 1</td>
<td>≥ 1</td>
</tr>
<tr>
<td>PhD from bachelors</td>
<td>8</td>
<td>≤ 3</td>
<td>≥ 3</td>
</tr>
</tbody>
</table>
Comprehensive-I Requirements

• Coverage of 6 areas, including at least 1 from each category.

• The 6 courses used to satisfy the Comp-I requirements must have marks of at least B+ (78% or equivalent).

• Graduate courses or advanced undergrad courses (similar to 400-level courses at Waterloo).

• Courses from other universities:
  o Non-UW courses will be evaluated by the Grad Director and Graduate Committee to determine area and eligibility.
Course Offerings

• Grad course offerings can be found online.
• Consult your supervisor/advisor to decide which courses to take.
• Enrol in most CS grad courses online using Quest.
• Drop deadline is 3 weeks into the term.
Non-CS Courses

• Need permission of instructor and host department, and recommendation of supervisor.

• To count towards your CS degree:
  o List of approved non-CS courses online
  o Otherwise, prior approval from the Graduate Director (email course outline showing topics covered, reference materials, grading basis, supervisor recommendation)
  o Courses should have “CS content”
Non-CS Courses (cont.)

• Most courses must be CS courses:
  o MMath thesis: 3 of 4
  o MMath research paper: 5 of 7
  o MMath coursework: 6 of 8
  o PhD from Masters: 3 of 4
  o PhD from Bachelors: 6 of 8
Teaching Assistantships (TA)

- Only guaranteed for PhD and MMath thesis students
  - Normal load is 4 units per year
  - Max 2 per term
  - Your current assignment is on Odyssey

- Duties:
  - Set by instructor (or course coordinator)
  - Contact immediately

- All TAs must have attended today’s TA Orientation Session!
Do a Good Job in TA

• Attend TA meetings.

• Being a TA is both a privilege and a responsibility.

• Badly performing TAs will NOT get future TAships.
Major Scholarships

• NSERC (Natural Science and Engineering Research Council) Scholarships:
  o Available to Canadian and Permanent Residents only
  o Applications due in October

• OGS (Ontario Graduate Scholarship):
  o Open to all; only small number for international students
  o Applications due in October (international) and February (Canadian/PR)

• You are strongly encouraged to apply for OGS and NSERC if you hold an RA and are eligible (average over 85%)!
Cheriton Scholarships

• Open to all PhD students within program limits, 80% average.

• 3-5 awarded each term.

• $10,000 per year for 2 years.

• Call for nominations near end of each term.
Running Low on Funds?

• Talk to your supervisor.

• Some funds to help those in genuine distress.
Questions?

• First, check or post to Piazza:
  o https://piazza.com/uwaterloo.ca/other/scsgrad

• If Piazza doesn’t help, send email to:
  o Denise Shantz (denise.shantz) if you are a coursework master’s student
  o Jo-Ann Hardy (jo-ann.hardy) if you are a thesis/research paper master’s student
  o Loc Do (ltdo) if you are a PhD student
Still Need Help?

• Send email to:
  o Justin Wan (cs.graddir), if you are a non-coursework student
  o Richard Trefler (trefler), if you are a coursework student

• Desperate? Go to the grad office:
  o DC 2599

• Your last option… come to my office:
  o DC 3625