

Dept of Statistics & Actuarial Science

Orientation for
New Grad Students

UNIVERSITY OF
WATERLOO

uwaterloo.ca

Friday, Sept 9, 2022

MC 3127

9:30 – 11:30

Congratulations and welcome!

Agenda

- 9:30am – Introduction by Faculty and Staff
- 9:50am – Orientation continues;
Mary Lou & Shoja
- 9:50am – MActSc & MQF students may leave

About the Department

- ~60 research-active faculty members
- ~200 PhD, MMath, MQF, MActSc students
- Largest Stat & ActSc group in Canada
- One of the largest in the world
- ~1200 undergrad students

About the Department

- international reputation for
 - scope & depth of undergrad & grad programs
 - range & strength of faculties' research
- distinguished faculties
 - Several research chairs
 - many awards & honours



by Chair & Staff

Some Dept People

Changbao Wu

Chair

Carlos Mendes

Admin Officer

Greg Preston

Technical/Web Specialist

Matthew Babela

Divya Lala, Jenny Tieu,

Steve Van Doormaal

Instructional Support Coordinator

Shoja Chenouri

Associate Chair, Grad Studies

Helen Chen

Program Coordinator, MQF, MActSc

Mary Lou Dufton

Grad Coordinator

Programs

- MMath, PhD:
 - ActSc: Bin Li
 - Biostat: Richard Cook
 - Stat: Greg Rice
- MQF: Alexander Schied
- MActSc: Diana Skrzydlo

Many Young Professors

- highly energetic; cutting-edge research
- Stat/Biostat:
 - Glen McGee; Zelalem Negeri
 - Alex Stringer; Lan Wen
- ActSc:
 - Lisa Gao
 - Fangda Liu

Faculty-Level Orientation!

- Different from this one (department-level):
- It was on Thursday, Sept 6 (**already done**):
- web site (connect and remove "..."):
 - [https://uwaterloo.ca/math/...](https://uwaterloo.ca/math/)
 - [current-graduate-students/...](#)
 - [new-graduate-student-information](#)
- Learn & Waterloo Grad Ready

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13:30 – 3:30

Some Boring but Crucial Info (The Real Orientation)

MMath + PhD

MMath

- Essay option (3 terms):
 - 7 courses (typically 3+3+1)
 - essay (need NOT be original or publishable)
 - other milestones (grad student skills workshop, etc)
 - Thesis option (3 to 4 terms):
 - 4 courses
 - thesis (somewhat original & almost publishable)
 - other milestones
- If not, committee may find
your thesis unacceptable ...

MMath

- All courses @ 800 and 900 levels
- At most ONE course allowed in other areas
e.g., not “STAT XXX”
- Essay option (by default):
 - numerically graded
 - full-time financial support = 2 TAs/term x 3 terms
- Thesis option (extra approval needed):

Thesis: MMath vs PhD

- A thesis (PhD or MMath) must contain ...
 - original & publishable research!
- PhD expectation:
 - multiple peer-reviewed papers
- MMath expectation:
 - one peer-reviewed paper

MMath

- Secure supervisor by 2nd month of 2nd term
 - e.g., Feb 2023 for those who started in Sept 2022
- Check faculties' research profiles & talk to them
- Ask Grad Officer or Grad Coord. for suggestions
- Attend Faculty research presentation day TBD
- Many highly-energetic **new faculties**
 - at the very frontiers of our discipline
 - strongly encourage you to approach them

PhD



- Course requirements of 6 courses in total
- **Comprehensive Exams, Stage 1**
 - “breadth requirement”: Required to take 3 courses, one from each of 3 breadth categories and achieve a grade of at least 75% in each of them.
 - “PhD Research Skills”: Pass Stat 900 or ACTSC 900
 - Two elective courses.
- Topics courses are considered electives.
- By end of term 3, you are required to take 5 course (3 breadth requirement + Stat/ACTSC 900 + an elective)
- Comprehensive Exams, Stage 2 (“thesis proposal”)
 - By the end of 7th term

PhD



- terms 1 – 12 (first 4 years): fully supported
- terms 13+ (year 5+): mostly RA from supervisor
- international doctoral award:
 - full award for year 1 – 3; 2/3 for year 4; none for year 5+
- term progress report (TPG):
 - starting from term 2, must complete a TPG **each term** ...
 - by end of the **first month** (i.e., Jan, May, Sept) ...
 - for your progress in the previous term (i.e., Fall, Winter, Spring)
 - also used as a base for many other internal awards

Grad Student Skills Workshop

- part of degree requirement (milestones)
 - TA skills workshop (one evening, ~ 3 hrs)
 - writing skills workshop (three sessions)
- mandatory for all new grad students

TA Skills Workshop

- Date: Thursday, Sept 8, 2022(Done)
- Time: 4:30pm – 8:30pm
- Location: M3, 3127
- Food: light dinner provided

Writing Skills Workshop

- Dates (must attend):
 - **TBA**



MFCF Graduate Workshop

- Math Faculty Computing Facility
- Strongly encouraged to attend (mandatory)
- Date and Location are
 - TBA

Academic Integrity

- Mandatory (MMATH & PhD) **online course**
- access through learn.uwaterloo.ca
- watch out for email in your mailbox

Harassment and Discrimination

- Harassment and Discrimination are issues taken seriously by the University of Waterloo
- mandatory (MMATH & PhD) **online course**
- access through learn.uwaterloo.ca

GSPA web site:
<https://uwaterloo.ca/graduate-studies-postdoctoral-affairs/current-students>

- Academics
- Awards and funding
- Registration and course enrolment
- Graduate student experience
- Graduate professional skills
- Stay connected

Departmental Seminars

- Great way to get educated **for real**
- try to attend as much as you can
- We strongly encourage you to attend
- minimum requirements:
 - MMath students: 2 (Fall); 2 (Winter)
 - PhD students: 4 (Fall); 4 (Winter)
 - **PhD students, attend the group meeting 1-2 pm every Wednesday in M3 4001 to chat with the seminar speakers.**

Departmental Seminars

- David Sprott Distinguished Lecture Series
 - Twice a year, usually May and October
- Actuarial Science and Financial Mathematics seminar series
 - Fridays 10:30- 11:30
- Statistics and Biostatistics seminar series;
 - Wednesdays and Thursdays
- Probability seminar series
- Student Seminar Series

Waterloo Conferences

- Waterloo Conference in Statistics, Actuarial Science, and Finance
 - normally in late April or early May
- Waterloo Student Conference in Statistics, Actuarial Science and Finance
 - normally in mid October or early November

Student Competitions

- ASA Datafest for undergraduate students
 - The first weekend of May.
- Datathons
- SSC case studies

Teaching Assistantship

- each TA unit ~ 80 hrs of work during the term
 - **marking** assignments (& keeping student records)
 - holding **office hours**
 - teaching **tutorial** sessions
 - **proctoring** tests/exams
 - etc
- learning the course material
 - not counted in the “80 hrs” workload
 - considered part of your qualification

Teaching Assistantship

- have chance to express preferences (though they are not always met)
- funding level depends on number of TA units you request/eligible/hold (0, 1, or 2)
- MMath expectation: 2 TAs/term x 3 terms

Teaching Assistantship

- A well-paid job!
 - over \$50/hr; qualification by being our grad student
- Be professional!
 - performance monitored throughout the term
 - will be **fired** if performance < expectation (any time)
 - TA award: a significant item for your resume

Teaching Assistantship

- expected to
 - stay in touch with your course instructor(s), your immediate boss of your TA position
(stay in touch with the Instructional Support Coordinator)
 - be physically available on-campus for the entire term
(including the exam period)

Teaching Assistantship

- workload varies
 - Accept reality, and do your assigned duties.
- no excuses
 - If you cannot take it, you don't have to hold the job, and we don't have to fund you either.

Teaching Assistantship

- MUST communicate with instructor if
 - cannot meet a deadline or perform a TA duty (e.g., proctoring)
 - suggestion: find qualified substitute; either swap duties or buy dinner/gift; but MUST have permission from instructor.
- NEVER book any trips (vacation, holiday, honeymoon, ...) UNLESS you know it will fit into your TA schedule – will be FIRED for violation.

Teaching Assistantship

- all TAs also in the “faculty reserve pool”
- can be randomly selected to proctor exams for large courses in the Math Faculty
- part of your TA duty

A Piece of Advice

- Faculties do talk to each other (and to me) about their interactions with our students.
- You do quickly develop a reputation in the department, and your reputation can **help** you or **hurt** you much more than your academic performance does.
- Examples:
 - Reference letters are more important than transcripts.
 - Employers do call us about our graduating students.

Teaching Opportunities

- If you are interested in an academic career you may get a chance to teach an undergraduate course, preferably after your proposal
- When you are applying for jobs this experience can be very valuable on your CV
- Talk to your supervisor first to find the right time
- Plan ahead as teaching schedules are fixed a year in advance

Additional Funding

- scholarships
 - entrance, graduate, senate, ...
- chair's awards
- international doctoral awards
- NSERC & OGS
 - domestic students only

Additional Funding

- research assistantships or studentships
- travel assistance – See Mary Lou
 - for presenting your work at a research conference
- bursaries (see Student Awards Office)
 - if you have financial difficulties

Some other important notes

- Workday
- Onboarding – SIN, Bank Account and TD1 forms
- Study permit
- Co-op

Computing

- IST
 - UW user ID
 - wireless connection (eduroam, WatIAM)
 - virtual private network (VPN)
 - discounted software (Matlab, etc)
- MFCF
 - [biglinux / fastlinux].math.uwaterloo.ca
 - “P:” drive in Windows = “/u/jdoe” directory in Linux

Your UW Email



- your UW email, e.g., jdoe@uwaterloo.ca
 - your responsibility to manage it
 - free to forward to gmail, yahoo, whatever from your Watlam account from jdoe@connect.uwaterloo.ca
 - but excuses such as “I don’t check my uwaterloo email” are NOT acceptable
 - UW is legally allowed to assume that, if information has been sent to your UW email, then you can be held responsible for it.

QUEST

- In QUEST, verify personal & academic info.
 - courses
 - financial support
 - other

Add / Drop

- \leq week 3, can add/drop courses in ...
QUEST
week 4-10, drop online but WD in transcript.
- $>$ week 10, need signature from ...
 - lots of people (a big headache!)
- once final period begins, cannot drop/add

Problems, Questions

- People to ask ..
 - Supervisor or Program Advisor (...)
 - Grad Student Reps ()
 - Grad Coordinators
 - Mary Lou
 - Associate Chair of Grad Studies (Shoja)

MMath Data Science Ethics Workshop

3 live virtual workshops instructed by Professor Maura Grossman (offered either Monday or Friday at different times) will be offered this Fall term to complete your required Ethics milestone.

It is strongly recommended that you complete these workshops this Fall 2022 term. More information, including syllabus and links will be provided by email in the next few weeks.

Please note: the Ethics Workshop milestone is a requirement necessary for Degree Completion.

Workshop	Date	Time
Ethics Workshop 1	Monday, Sep 26 th Friday, Sep 30 th	1pm – 4pm ET 9am – 12pm ET
Ethics Workshop 2	Monday, Oct 3 rd Friday, Oct 7 th	1pm – 4pm ET 9am – 12pm ET
Ethics Workshop 3	Monday, Oct 17 th Friday, Oct 21 st	1pm – 4pm ET 9am – 12pm ET

Math Data Science Course information

- Students must complete at least 4 courses.
- Students should have received an email indicating whether they will need to take CS 600 or STAT 845.
 - Students lacking adequate background in computer science may be required to take CS 600 Fundamentals of Computer Science for Data Science
 - Students lacking adequate background in statistics may be required to take STAT 845 Statistical Concepts for Data Science.
- Neither of these courses may be counted toward the 4 course requirement.

MMath Data Science Administration Processes

When to contact DS coordinator:

- Program inquiries: [Data Science Program Administrator/ Coordinator](#)
 - e.g., forms, approvals, signatures, rules/procedures (degree completion, thesis submission etc.)
 - Email Silvana/Ryan: ds.grad.admin@uwaterloo.ca

When to contact home unit coordinator:

- Funding or TA inquiries: [Unit Coordinator](#)
 - Email **NAME**: [EMAIL](#)@uwaterloo.ca

Department Social

When? TBD

Where? TBD

What? Food
 Drinks
 Fellow students
 Professors

