Department of Statistics & Actuarial Science

Orientation for New PhD Students

Wednesday, Sept 5, 2018
A Great Choice

• It is a very exciting time to be studying any of the ‘data sciences’
• These include: Statistics, Actuarial Science, Biostatistics and Quantitative Finance
• It has become widely understood that good decision making should be based on empirical evidence. This requires the ‘data sciences’
The Department

- We have recently had a conference to celebrate our 50\textsuperscript{th} Birthday
- We are the oldest Department in Canada
- In 1982 the department’s name was changed to Statistics and Actuarial Science
- Now home to more than 45 research active full-time faculty
- The Department is also home to over 900 undergraduate students and about 150 graduate students in programs including Actuarial Science, Biostatistics, Quantitative Finance, and Statistics
About the Department

• Waterloo Research Institute in Insurance, Securities and Quantitative Finance (WatRISQ),
• Business and Industrial Research Group (BISRG),
• Propel Centre for Population Health Impact (PROPEL),
• Centre for Computational Mathematics in Industry and Commerce (CCMIC)
• Statistical Consulting and Collaborative Research Unit
• Survey Research Centre (SRC)
Introductions
The **MOST** important people

- Lisa Baxter - MMath (M3 3138)
- Mary Lou Dufton - PhD (M3 3137)
- Helen Chen - MQF and MActSci (M3 3139)

They know ALL the answers to your questions!
Some (other) Department People

• **Chair:** Stefan Steiner

• **Assoc. Chair Act. Science:** David Landriuault

• **Assoc. Chair Research:** Richard Cook

• **Assoc. Chair UnderGrad:** Pengfei Li

• **Assoc. Chair Grad:** Paul Marriott
Graduate Student Reps

• Graduate Student Association
  https://uwaterloo.ca/graduate-student-association/

• Two graduate student reps will be announced shortly
Department Social

When?  Wednesday 12th September  4:30pm
Where?  M3, Bruce White Atrium
What?  Food
Drinks
Fellow students
Professors
PhD – Stats or BioStats

• With Masters:
  – Five courses, average at least 70%, must include STAT 901,908

• Without Masters:
  – Eight courses, average at least 70%, must include STAT 901,908

• Graduate skills milestone
• Comprehensive: exams and proposal
• Submission and defense of thesis
PhD – ActSci

• With Masters:
  – Five courses, average at least 70%, must include three 900 ACTSC and STAT 850 and 901

• Without Masters:
  – Eight courses, average at least 70% must include three 900 ACTSC and STAT 850 and 901

• Graduate skills milestone
• Comprehensive: exams and proposal
• Submission and defense of thesis
PhD- Comprehensive

• Comprehensive exams, stage 1 (two papers)
  – January and/or May of 1st year
  – chair (2018-19): Professor Chengguo Weng
  – Exam meeting Friday September 14 at 10:30 a.m. in M3 4206.
  – Thus years exams: Monday January 7, 2019 and Friday January 11 9:00 a.m. to 1:00 p.m.
  – past exams will be made available
  – search for research topic immediately after passing

• comprehensive exams, stage 2 (thesis proposal)
  – 6th 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
Grad Student Skills Workshop

• Date: Thursday, Sept 6, 2018
• Time: 16:30–19:30
• Location: M3 3127 (seminar room)
• Food: Light dinner provided
Writing Skills Workshop

• 1st session is Tuesday September 11 from 4:30 – 6:30
• 2nd session is Tuesday September 25 from 4:30 – 6:30
• 3rd session is Tuesday October 23rd from 4:30-6:30
• All these session are in M3 3127
Academic Integrity

• mandatory 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 online course
- access through learn.uwaterloo.ca
Departmental Seminars

- Thursdays, 16:00 – 17:00
- great way to get educated for real
- try to attend as many as you can
- Don’t be afraid to ask question!

**minimum requirements:**
- MMath students: 2 (Fall); 2 (Winter)
- PhD students: 4 (Fall); 4 (Winter)
- attendance forms available from Lisa or Mary Lou
Graduate Seminar Series

• There is a lunch time series of seminars where our own graduate students can present their work
• This counts for your presentation PhD milestone
• A good chance to practice your presentation skills and get feedback on your research ideas
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/hold (0, 1, or 2)

• MMath expectation: 2 TAs/term x 3 terms if satisfactory work both academically and in past TA work
Teaching Assistantship

- Workload varies
- Discuss early with the Professor to find out what the requirements are and when they take place
- Not necessarily uniform across the term
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) UNLESS you know it will fit into your TA schedule. This is particularly important in the exam period.
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
Teaching Opportunities

• After your proposal, if you are interested in an academic career you may get a chance to teach an undergraduate course
• 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
Graduate Student Teaching Seminar

Looking to teach a STAT or ACTSC course? Looking for ways to improve your teaching? Looking for tips to not let good teaching overwhelm your research?

• Winter 2019 seminar
• 12 weeks which includes three micro teaching sessions and actual in-class practicum experience.
• Taught by math and CS faculty.
• Discussions around presentation skills, creating assessments (assignments, examinations), teaching philosophies and more.
• If interested or if you would like more information please email: cbruni@uwaterloo.ca
Additional Funding

• scholarships
  – entrance, graduate, senate, ...

• chair’s awards

• international doctoral & master awards

• NSERC & OGS
  – domestic students only
Additional Funding

• research assistantships or studentships

• travel assistance - see Lisa (MMath), Mary Lou (PhD)
  – for presenting your work at a research conference

• bursaries (see Student Awards Office)
  – if you have financial difficulties
Computing

• MFCF will be running a number of information sessions. You must go to one of these

• Fri. Sept 7 11:00-12:00 M3- 3103
• Thurs. Sept 13 3:50-4:50 M3- 3103
• Fri. Sept 14 1:00-2:00 M3- 3127
Your UW Email

• your UW email, e.g., jdoe@uwaterloo.ca
  – your responsibility to manage it
  – free to forward to gmail, yahoo from your Watlam account from jdoe@connect.uwaterloo.ca
  – Ensure you set you gmail to send as if from jdoe@uwaterloo.ca
  – but excuses such as “I don’t check my uwaterloo email” are NOT acceptable
QUEST

• In QUEST, verify personal & academic info.
  – courses
  – financial support
  – other
Problems, Questions

• People to ask ..
  – Supervisor
  – Grad Student Reps
  – Grad Coordinators Lisa (MMath), Mary Lou (PhD)
  – Associate Chair of Grad Studies (Paul)