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 50th 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
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 Landriualt
- **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
MMath

• Essay option (3 terms):
  – 7 courses (typically 3+3+1)
  – essay (need NOT be original research or publishable)
  – other milestones (grad student skills workshop, etc)

• Thesis option (3 to 4 terms):
  – 4 courses
  – thesis (somewhat original & almost publishable)
  – other milestones
MMath

• all courses @ 800 and 900 levels

• at most ONE course allowed in other areas

• essay option (by default):
  – numerically graded
  – full-time financial support = 2 TAs/term x 3 terms

• thesis option (extra approval needed):
  – Think carefully and talk to me/supervisor if you want to take this option
MMath: Statistics

• Essay option: seven (STAT) term courses
• Three of the courses should include STAT 830 (or 835) and STAT 850 and 854
• Average at least 70%

• Thesis option: four (STAT) term courses
• Should include STAT 850 and two 900 level STAT courses
• Average at least 70%
MMath Biostatistics

• We have just made changes to this program and you are in the new and improved program
• Fall: take Stat 831, 850 and 931 since these are only offered in the fall term.
• Winter: take 2 of Stat 932, 935 and 936 + an elective from list
• Spring term normally is 1 elective and the research essay
• Note Stat 936 will only be active as of Winter 2019 and will on the schedule as soon as it is approved.
MMath Biostatistics

• Elective list
  • STAT 830 Experimental Design
  • STAT 844 Statistical Learning - Function Estimation
  • STAT 854 Sampling Theory and Practice
  • STAT 938 Statistical Consulting
  • STAT 932 Classification and Prediction in High Dimensional Analysis in Health Research
  • STAT 935 Analysis of Survival Data
  • STAT 936 Analysis of Longitudinal Data
  • STAT 946 Topics in Probability and Statistics
  • STAT 947 Topics in Biostatistics
MMath Actuarial Science

• Essay Option: Seven courses with average 70%
• Must include ACTSC 895
• 2 of ACTSC 855, ACTSC 962, ACTSC 964, or ACTSC 970
• 1 of ACTSC 974, STAT 831, STAT 840, STAT 841, or STAT 906
• At least 3 900-level ACTSC courses must be taken
• Thesis Option: Four course with with average 75%
• ACTSC 895 and at least two 900 courses
Co-op in Stats/BioStats

• Co-op options are available
• Same courses as regular MMath programs
• Co-op work report milestone
• Usual co-op schedule:
  – Two academic terms
  – Two work terms
  – Final academic term
MMath

• Find a supervisor by 2\textsuperscript{nd} month of 2\textsuperscript{nd} term
  – e.g., Feb 2018 for those who started in Sept 2018
• Check faculty’s research profiles & talk to them
• Ask program advisors for suggestions
• Many highly-energetic new faculty
  – at the very frontiers of our discipline
  – strongly encourage you to approach them
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

• 1\textsuperscript{st} session is Tuesday September 11 from 4:30 – 6:30
• 2\textsuperscript{nd} session is Tuesday September 25 from 4:30 – 6:30
• 3\textsuperscript{rd} session is Tuesday October 23\textsuperscript{rd} 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
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 each week
• 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
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 Watlamb 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
Problems, Questions

• People to ask ..
  – Supervisor or Program Advisor (…)
  – Grad Student Reps
  – Grad Coordinators Lisa (Mmath), Mary Lou (PhD)
  – Associate Chair of Grad Studies (Paul)