

**STA490Y1Y: Statistical Consultation, Communication, and Collaboration**  
2019–20

**Section L0101**

*Instructor:* Prof. Alison Gibbs

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*Office:* SS 6009

*Office hours:* Thursdays 12:00–13:00

*Preferred pronouns:* she/her

**Section L0201**

*Instructor:* Prof. Nathalie Moon

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*Office:* SS 6024A

*Office hours:* Thursdays 12:00–13:00

*Preferred pronouns:* she/her

**Course web page**

All materials will be posted on Quercus <https://q.utoronto.ca>

**Graduate student mentors**

Cédric Beaulac, Michael Chong, Alex Gao, Jeffrey Negrea, Marija Pejcinovska, Yanbo Tang, Robert Zimmerman

**Course content**

The purpose of the course is to develop skills in the collaborative practice of statistics. This will be done through class discussion, readings, case studies, and two projects. Course activities develop skills in statistical problem solving and oral and written communication, and engage you in issues related to appropriate and ethical statistical practice.

**Class meetings**

Class meetings are typically on Thursdays 10:10–noon. You should attend the meeting for your section only. Attendance at all meetings is mandatory as there is no substitution for participating in the discussion that will take place. For most meetings, there will be assigned reading or work which must be done in preparation.

**Breakout sessions**

Breakout sessions will be held during the non-Thursday scheduled class time (Tuesdays 10:10AM - 12PM for section L0101 and Mondays 5:10PM - 7PM for section L0201) on the dates indicated on the course schedule. These will be led by your graduate student mentors. The activities in these breakout sessions will vary, but may include the following:

- Introduction to your project,
- One-on-one chats with your graduate student mentor to discuss and assess your progress on a particular aspect of the project you are working on
- Group discussion to brainstorm strategies for analysis, compose questions for the research collaborator, etc.

**Projects**

Much of the course will be structured around two projects, one in the Fall term and the other in the Winter term.

- *Fall term project:*  
All students will work on the same project but will be expected to complete and submit independent work. Discussion of this project will occur in both breakout sessions and in class meetings.

- *Winter term project:*

Students will be divided into groups of approximately 10 students and each group will be assigned to one project. Your work on this project will be guided by a graduate student mentor who is a PhD student in statistics.

Discussion about your project with your classmate(s) assigned to the same project is encouraged, but you may not use work completed by another student. You are expected to complete and submit independent work (both for statistical analysis, including code, and written reports). To protect yourself from potential academic integrity offences, do not share your code and written materials.

### **Readings and references**

Required readings will be posted on Quercus.

Anytime you need a reference on a statistics topic (software or methodology) see what you can find on your own. Then ask your graduate student mentor or your instructor.

### **Computing**

We will use R, the R Studio IDE, and R Notebooks. You need to install R first, and then R Studio. R can be downloaded for free from <http://cran.r-project.org>. R Studio can be downloaded for free from <http://www.rstudio.com/products/rstudio/download/>.

### **Communication**

Please direct general course questions to the STA490 Piazza page <https://piazza.com/utoronto.ca/fall2019/sta490/home>.

Email is appropriate if you are unable to come to campus because of illness or if it is necessary to make an appointment outside of office hours. The instructor(s) may contact the entire class by email, at your address that is on your student account. Please make sure you read the email that goes to that account.

Your graduate student mentor may set up an alternative method of discussion for your project.

### **Accessibility needs**

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom, or course materials, please contact Accessibility Services as soon as possible:

[accessibility.services@utoronto.ca](mailto:accessibility.services@utoronto.ca) or <http://www.accessibility.utoronto.ca>.

### **Academic integrity**

Academic integrity is fundamental to learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the University of Toronto degree that you earn will be valued as a true indication of your individual academic achievement, and will continue to receive the respect and recognition it deserves.

Familiarize yourself with the University of Toronto's Code of Behaviour on Academic Matters available at <http://academicintegrity.utoronto.ca>.

**Evaluation** (dates are tentative, but unlikely to change)

	Weight	Date
<b>Attendance, participation, and preparation</b> (as demonstrated in class, in project meetings, and via submissions on Quercus)	<b>20%</b>	
<b>Fall term project</b>	<b>25%</b>	
<i>Components:</i> EDA	20 points	Sun Sept 29, 11:59PM
Statistical Analysis	25 points	Sun Oct 20, 11:59:PM
Draft methods/results section	20 points	Mon Nov 11, 11:59PM
Final Report	35 points	Mon Dec 2, 11:59PM
<b>Winter term project</b>	<b>45%</b>	
<i>Components:</i> Project presentations (group grade)	15 points	Feb. 6 or Mar. 19 (in class)
EDA	10 points	Sun Jan 20, 11:59PM
Statistical Analysis	30 points	Sun Mar 1, 11:59PM
Draft Report	15 points	Mon Mar 16, 11:59PM
Final Report	30 points	Thurs April 2, 11:59PM
<b>BMJ presentation</b> (date as assigned)	<b>5%</b>	Nov. 21 or Jan. 23 or Feb. 27 or Mar. 26 (in class)
<b>Career panel reflection</b>	<b>5%</b>	Thurs Feb 27, 11:59PM

**Note:** No late work will be accepted without documentation of a valid reason. Think of this course as professional practice. Manage your deadlines carefully.

**How to succeed in the course**

- Be prepared and on time for all classes and meetings.
- Ask good questions.
- Do all of the assigned work on time.
- Demonstrate that you are trying.
- Work on your project every week.

**Course Mantra**

*It's OK not to know.  
Expressing ignorance is encouraged.  
It's not OK to not have a willingness to learn.*