Statistical Sciences
UNIVERSITY OF TORONTO

STA220H1 The Practice of Statistics I (Online Section LEC5101)
Fall 2025

Teaching Team

Name	Role	Lecture Schedule	Email
Bethany White	**LEC5101 (online) Instructor**	**Wed. 6-8pm (online) + online asynchronous learning activities**	sta220@course.utoronto.ca
Ismaila Ba	LEC0101 (In-person) Instructor	Mon. 9-11am, Wed. 9-10am (in-person)	
Jessie Yeung	Course Coordinator & LEC0201 Instructor	Mon. 1-3pm, Wed. 1-2pm (in-person)	

*Instructor and TA office hours will be posted on Quercus. NOTE: Office hours are *not* section-specific. You may attend office hours offered by any of the STA220 instructors and TAs based on your availability and preferences.*

Course Description

An introductory course in statistical concepts and methods, emphasizing exploratory data analysis for univariate and bivariate data, sampling and experimental designs, basic probability models, estimation and tests of hypothesis in one-sample and comparative two-sample studies. A statistical computing package is used but no prior computing experience is assumed. Note: STA220H1 does not count as a distribution requirement course.

Prerequisite
None

Recommended Preparation
Grade 12 Mathematics and one University course in BR= 3/ 4/ 5

Exclusion
ECO220Y1/ ECO227Y1/ GGR270H1/ IRW220H1/ PSY201H1/ SOC202H1/ STA261H1/ STA238H1/ STA248H1/ STA288H1/ EEB225H1/ STAB22H3/ STAB57H3/ STA215H5/ STA220H5/ ECO220Y5/ ECO227Y5/ STA258H5/ STA260H5

Quercus Homepage

Our course homepage is located on Quercus (https://q.utoronto.ca/courses/404290). This is where you will find the most up-to-date information about the course such as announcements, lecture material, assessment information, grades, etc.

Online (Zoom) class meetings will not be recorded, but outline lecture slides (in .pdf format) will be posted on Quercus at least 6 hours before each week's class meeting. Alternative slide formats will not be available.

Note that this Quercus page and syllabus is for the online section (i.e., LEC5101) only. The in-person sections (i.e., LEC0101 & LEC0201) have a separate Quercus site and syllabus.

Email Communication

For all course-related inquiries, please email sta220@course.utoronto.ca. The course coordinator manages this inbox and will respond to most emails, regardless of the section you are enrolled in. If your question pertains to a specific section, it will be directed to the appropriate instructor.

Students can expect a reply within 24-48 hours (excluding weekends and holidays).

Piazza

All three sections of STA220 will be using Piazza as the platform for discussions related to the course material and assessments. You access Piazza from the Quercus homepage by selecting 'Piazza' from the menu. Alternatively, you can find our course page at https://piazza.com/utoronto.ca/fall2025/sta220.

All posts and conduct on Piazza must remain professional. Posts regarding personal matters such as inquiries about grades, reporting absences, regrade requests, etc. should be directed toward the appropriate form as appropriate, or communicated directly to the teaching team via email (at sta220@course.utoronto.ca) and **NOT** posted on Piazza. Piazza is intended for students to receive support regarding course administration information and content and thus should be an overall positive and professional environment. Postings that do not align with this expectation will be removed. Questions regarding assessment questions or solutions before they have been graded and returned are not permitted.

Course Support Advice

Have a question about the course material?

1. Visit STA220H1F instructor and/or TA office hours

See Quercus for schedules and locations.

OR

2. Monitor and post on the STA220 Piazza forum

Before posting, review the syllabus and previous postings to confirm a related question has not already been posted/addressed. If it has not been addressed elsewhere, post your question. Note that questions about active assessments, or those that are more personal in nature should *not* be posted/answered on Piazza.

Have a more personal or sensitive course-related question/concern?

1. Send an email to the STA220H1F teaching team at sta220@course.utoronto.ca

Please use your mail.utoronto.ca email address. Emails sent from addresses other than mail.utoronto.ca address will not be answered. Be sure to include your LEC section (i.e., LEC5101) in the subject line of your message.

OR

2. Visit STA220H1F instructor office hours

See Quercus for schedule of weekly instructor office hours and locations. If there are other students present, be sure to let the instructor know that you wish to speak with them privately.

Textbooks & Resources

We will be using the STA220 Online Modules available at https://courses.utstat.utoronto.ca/STA220/. This website features video lectures created by faculty in the Department of Statistical Sciences for past iterations of STA220.

There is no required course textbook, but if you would like an additional reference, you may find the following textbook useful:

OpenIntro Statistics 4th Ed. By Diez, D., Cetinkaya-Rundel M. & Barr, C.D. (2019)

- Free and available to download here: https://leanpub.com/os
- This is an excellent textbook that is less conversational but contains clearly explained concepts. A nice feature of the text and website is that many of the examples used to illustrate the concepts are based on real applications of statistics.

Course Assessments

Assessment	Weight	Due Date
Weekly Pre-class Activity	0.5% each, up to a maximum of 5%	5pm, Wednesdays. See Weekly Course Schedule in this syllabus and on Quercus for more details.
Online class meeting participation	0.5% per class, up to a maximum of 5%	In online synchronous class meetings each week
Assignment 1	5% (Part 1) + 5% (Part 2)	Part 1 (individual) due 5pm, Wed, Sept 24 Part 2 (group) due 5pm Fri, Oct 3
Term Test (In-person, on campus)	25%	Wed, Oct 15 during scheduled class time (location TBA)
Assignment 2	5% (Part 1) + 5% (Part 2)	Part 1 (individual) due 5pm, Wed, Nov 12 Part 2 (group) due 5pm Fri, Nov 21
Final Exam (In-person, on campus)	45%	To be scheduled by the Faculty of Arts & Science

Weekly Pre-class Activities
There will be twelve pre-class activities (e.g., a Quercus quiz or Quercus Discussion activity) due before the Zoom class meetings. These will be released by Monday morning and due at 5pm on Wednesday. These will be graded based on completion (i.e., activity must be attempted in its entirety, but answers/contributions need not be correct) but must be completed/submitted by the deadlines to earn the credit.

There are no extensions, make-ups, nor accommodation for missed pre-class activities. Please note, however, that there is flexibility built into the grading scheme (i.e., pre-class activities are worth 0.5%/each up to a maximum of 5%).

Online Class Meeting Participation
There will be twelve synchronous online classes (Wednesdays 6-8PM) - attendance and participation is mandatory for these sessions. To earn the 0.5% for a particular class session, you must attend the Zoom class and complete online activities during the session (e.g., answering polls, typing answers to a questions in the chat box). More information on how to earn the 0.5% will be shared during class.

There are no extensions, make-ups, nor accommodation for missed class meeting participation. Please note, however, that there is flexibility built into the grading scheme (i.e., participation is worth 0.5%/class up to a maximum of 5%).

Term Test
There will be one term test during the course which will take place during class time on Wednesday, Oct 15, with a duration of 90 minutes.

The term test is an in-person timed assessment. By enrolling in this section of STA220, you are affirming that you are available on campus during regularly the scheduled class meeting on Wednesday, Oct 15. Students who miss the test will not be allowed to write the test for another STA220 section. Refer to the Missed Assessments section of this syllabus (below) for information on how to request accommodation if you miss the term test due to an illness or personal emergency.

The following aids are permitted during the term test:

1. **Study notes** (ONE single-sided 8.5x11 inch sheet of notes)
    - Notes must be on a piece of paper (i.e. not on an electronic device) to be used during the term test.
    - Notes can be hand-written or typed/printed.
    - To be handed-in with the test and will not be returned.
2. **Calculator** (see below for calculator policy)

Assignments
There will be two assignments during the term – each assignment will consist of an individual component to be completed and submitted on your own (Part 1), followed by a group component where you will work on new, but related, questions with your group members on your group's Quercus discussion board (Part 2). Groups will be randomly formed in Quercus before the first Assignment.

You must contribute collaboratively to your group's answers and participate regularly with your group members on your Quercus discussion board during the week to earn credit for the group component of the assignment. Additional assignment information and instructions will be posted on Quercus 7-10 days before the deadlines (see Schedule at the end of this syllabus).

Due to the nature of these assignments, there will be **no extensions granted on the individual or group components under any circumstances**. Refer to the Missed Assessments section of this syllabus (below) for information on how to request accommodation if you miss an assignment due to an illness or personal emergency.

Final Exam
There will be a 3-hour cumulative final exam at the end of the course. The date and time of the final exam will be set by the Faculty of Arts & Science later in the term.

The final exam is closed-book and the only aids allowed is a calculator and ONE double-sided 8.5x11 inch sheet of notes. All notes brought into the exam will be collected and not returned to students.

Missed Assessments

See below for a more detailed explanation for the policy regarding missed assessments for each assessment.

- *Missed Pre-class Activities or Class Participation*: There is no accommodation for missed pre-class activities or class participation beyond the flexibility built into the grading scheme.

- *Missed Term Test*: If the test is missed due to an illness or personal emergency please fill out the following form within one week of the missed test: Missed Term Test Form**.**

  The form will ask you to upload the appropriate documentation, which is one of the following: ACORN absence declaration covering the date of your test, Verification of Illness form covering the date of your test, Letter from College Registrar, or Letter of Academic Accommodation from Accessibility Services.

  Students who submit the appropriate documentation through the form by the deadline (i.e., one week after the term test) will receive an email to confirm that the weight of the missed test will be transferred to their final exam.

- *Missed Assignments*: Due to the nature of these assignments, there will be **no extensions granted on the individual or group components of STA220 LEC5101 assignments under any circumstances**. If you miss an assignment (or one of the two parts of an assignment) due to an illness or personal emergency please fill out the following form within one week after the assignment deadline: Missed Assignment Form.

  The form will ask you to upload the appropriate documentation, which is one of the following: ACORN absence declaration covering the assignment deadline, Verification of Illness form covering the date of the assignment deadline, Letter from College Registrar or Letter of Academic Accommodation from Accessibility Services.

  Students who submit the appropriate documentation through the form by the one-week deadline will receive an email to confirm that the weight of the missed assignment will be transferred to their final exam.

- *Missed Final Exam*: If you are not able to write your final exam at the scheduled time or if you miss a final exam for reasons outside your control, you may submit a deferred exam petition, which is a request to write your exam at a later date. Petitions must be submitted to the Faculty of Arts & Science, not the STA220 Teaching Team. Please see the Faculty of Arts and Science Deferred Exams for more information.

Regrade Requests

Mistakes occasionally happen when marking. If you feel there is an issue with the marking of the term test or assignment, you may request that it be re-marked. The course re-mark policy exists to correct mistakes, and any request should clearly identify the error (for example, a question that was not marked, or a total incorrectly calculated). Requests must be submitted using this form: Regrade Request Form.

Requests must be submitted within one week of the date that the assessment/grade was returned to you to be considered.

Please note that your *entire test/assignment may be re-marked when submitting a remark request*. It is possible that a remark request will result in a lower mark.

Note that final exam viewing and regrade request must be made to the Faculty of Arts & Science. Please refer to https://www.artsci.utoronto.ca/current/faculty-registrar/exams-assessments/exam-viewing and https://www.artsci.utoronto.ca/current/faculty-registrar/final-exams/exam-reread-course-mark-recheck.

Calculator Policy

You will need a calculator. Any basic calculator will be sufficient (no statistical functions are necessary). However, only calculators without communication and/or internet capabilities will be permitted. Calculators on phones or other devices equipped to communicate with the outside world (for example, through the internet or cellular or satellite networks) are prohibited during assessments.

Computing

We will use R for all examples. An introduction to programming the R statistical software is a learning objective of this course. So, in this course, you will interpret R code/output and modify and write R code.

Throughout the term, there will short R activities/resources for you to work through to gain hands-on experience with code used in this course. If you wish to do more in R, we recommend using RStudio (a convenient IDE for R) through the University of Toronto's JupyterHub at http://r.datatools.utoronto.ca. Although not necessary for this course, R (and RStudio) may be installed on your own machine as well; R is freely available for download at http://cran.r-project.org for Windows, MacOS, and Linux operating systems and RStudio is available at https://posit.co/downloads/.

Use of Course Materials & Intellectual Property Statement

All course materials are copyrighted. If they are from the textbook, the copyright belongs to the textbook publisher. If they are provided by an instructor (for example, lecture notes, computer code, assignments, tests, solutions) the copyright belongs to the instructor. Distributing materials online or sharing them with anyone in any way is a violation of intellectual property rights and, in some situations, an academic offence.

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 or https://studentlife.utoronto.ca/task/register-with-accessibility-services/.

Mental Health Resources and Services

Your mental health and well-being are important. If you have an urgent concern about school, health or life in general, the U of T Telus Health Student Support offers confidential support 24/7 via phone or chat. Please see https://mentalhealth.utoronto.ca/ for information on this and other supports and services available to you at the University of Toronto.

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.

- Discussion about lecture materials, textbook concepts and course concepts with your classmates and the teaching team is encouraged, but **it is expected that you work independently on all assessments (with the exception of part 2 of assignments, the group component, where you will be working with peers within your group)**.
- Please note, you may not submit for credit any work that was completed by someone else. This includes, but is not limited to, partially or fully completed code, written answers, answers to problems, communication of solutions, and plagiarism. In particular, you are expected to complete and submit independent work for all learning activities, assignments, tests, and exams. You may discuss lecture materials and general course concepts, but it is expected that you work individually and independently through all STA220 assessments with the exception of part 2 of assignments, the group component, where you will be working with peers within your group.
- You may use code provided by your STA220 instructors or TAs without providing a citation. If you use code from any other source, you must provide the source. To protect yourself from potential academic offences, do not share your code and written submissions anywhere (including on social media sites). Discussion or sharing of test questions and/or solutions with others during (or after) the tests is not permitted.

Academic offenses will be taken very seriously and dealt with accordingly. If you have any questions about what is or is not permitted in this course, please do not hesitate to contact the course coordinator and/or instructor.

Policy on Generative AI

While generative artificial intelligence tools can be used to support learning, the use of generative artificial intelligence tools and apps on graded course assessments is strictly prohibited (including learning activities, assignments, and tests/exams) unless explicitly stated otherwise by your STA220 LEC5101 instructor. This includes ChatGPT and other AI writing and coding assistants. Use of generative AI in this course may be considered use of an unauthorized aid, which is a form of cheating.

See next page for Course Schedule

Course Schedule

Week (Starting Date)	**Topic** ***(tentative – will be updated on Quercus during the term)***	**Notes**
Week 1 (Sept. 2)	Course Introduction	Activity #1 due 5pm, Wed, Sept 17
Week 2 (Sept. 8)	Summarizing Data	Activity #2 due 5pm, Wed, Sept 10
Week 3 (Sept. 15)	Probability: Events	Activity #3 due 5pm, Wed, Sept 17
Week 4 (Sept. 22)	Probability: Random Variables	Activity #4 due 5pm, Wed, Sept 24 **Assignment 1.1 (individual) due 5pm, Wed, Sept 24**
Week 5 (Sept. 29)	Sampling Distributions	Activity #5 due 5pm, Wed, Oct 1 **Assignment 1.2 (group) due 5pm Fri, Oct 3**
Week 6 (Oct. 6)	Confidence Intervals for Proportions	Activity #6 due 5pm, Wed, Oct 8
Week 7 (Oct. 13)	Confidence Intervals for Means	Activity #7 due 5pm, Wed, Oct 15 **STA220 LEC5101 Term Test Wed, Oct 15 (on campus location TBA - 90 minutes during scheduled class time)**
Week 8 (Oct. 20)	Term Test, Confidence Intervals for Means (Continued)	Activity #8 due 5pm, Wed, Oct 22
Reading Week		
Week 9 (Nov. 3)	The Process of Statistical Tests	Activity #9 - Pre-class quiz due 5pm, Wed, Nov 5
Week 10 (Nov. 10)	The Effective Use of Statistical Tests	Activity #10 due 5pm, Wed, Nov 12 **Assignment 2.1 (individual) due 5pm, Wed, Nov 12**
Week 11 (Nov. 17)	Comparing Two Groups	Activity #11 due 5pm, Wed, Nov 19 **Assignment 2.2 (group) due 5pm Fri, Nov 21**
Week 12 (Nov. 24)	Simple Linear Regression	Activity #12 due 5pm, Wed, Nov 26
Dec 5 - 23, 2025 (Final exam period)	**3-hour final exam (date, time, on-campus location TBA by Faculty of Arts & Science)**	