STA221H1 The Practice of Statistics II (LEC0101)
Winter 2026

Instructor: Jessie Yeung
Email: sta221@course.utoronto.ca
Lecture Schedule: Tues. 3:00-5:00PM and Thurs. 3:00-4:00PM (See Acorn for room information)
Tutorial Schedule: Thurs. 4:00-5:00PM *on specific weeks* (See Acorn for room information)
Instructor and TA Office Hours: See Quercus

Course Description
Continuation of STA220H1 (or similar course); emphasizing major methods of data analysis such as analysis of variance for one factor and multiple factor designs, regression models, categorical and non-parametric methods.

Prerequisite
One of: STA220H1/STA288H1/PSY201H1/GGR270H1/EEB225H1/STAB22H3/STA220H5

Please note that all prerequisites for all STA courses are strictly enforced and your instructor cannot waive them. Any questions about prerequisites should be directed to ug.statistics@utoronto.ca.

Quercus Homepage
Our course homepage is located on Quercus (https://q.utoronto.ca/courses/426904). This is where you will find the most up-to-date information about the course such as announcements, lecture material, assessment information, grades, etc.

Email Communication
For all inquiries related to course administration, please email sta221@course.utoronto.ca. Questions about the course content should be posted on Piazza.

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

Piazza
We 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.

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 communicated directly via email (at sta221@course.utoronto.ca) and **NOT** be posted on Piazza. Piazza is intended for students to receive support regarding course information and content and thus should be an overall positive and professional environment. Postings that do not align with this environment will be removed. Questions regarding assessment questions solutions before they have been graded and returned are not permitted.

Textbooks & Resources
We will be using *Stats: Data and Models, 4th Canadian Edition* by De Veaux et al. (ISBN: 9780135761489). Homework problems will be assigned out of this textbook. Electronic copies can be purchased on the UofT Bookstore website.

Lecture Schedule
This class will meet every Tuesday from 3:00-5:00PM and every Thursday from 3:00-4:00PM.

Tutorial Schedule
Tutorials will take place Thursdays 4:00-5:00PM on specific weeks. Check your timetable for your tutorial location as there are three different tutorial sections.

Tutorial Date	Topic
January 15	Introduction to R
February 5	Term Test Review Session
March 26	Final Exam Review Session
April 2	Final Exam Review Session

Course Schedule
Below is a tentative schedule of topics to be covered in this course. This content roughly corresponds to Chapters 7, 8, 22-28 in the textbook. The instructor reserves the right to modify this list as needed due to time constraints.

Week # (Starting Date)	Content	Textbook	Notes
Week 1 (Jan. 5)	Course Introduction Review of relevant STA220 topics		Quiz Due Sun. Jan. 11 at 11:59pm
Week 2 (Jan. 12)	Comparting Counts & Chi-Square Tests Tutorial: Intro to R	Chapter 22	Quiz Due Sun. Jan. 18 at 11:59pm
Week 3 (Jan. 19)	Comparting Counts & Chi-Square Tests Simple Linear Regression	Chapter 22 Chapter 7/8, 23.1	Quiz Due Sun. Jan. 25 at 11:59pm
Week 4 (Jan. 26)	Simple Linear Regression	Chapter 7/8, 23.1	Quiz Due Sun. Feb. 1 at 11:59pm
Week 5 (Feb. 2)	Simple Linear Regression Tutorial: Term Test Review	Chapter 7/8, 23.2-6	Quiz Due Sun. Feb. 8 at 11:59pm
Week 6 (Feb. 9)	Term Test		Term Test on during class time on Tues. Feb. 10 (Location: TBA) No quiz this week.
READING WEEK			
Week 7 (Feb. 23)	Multiple Linear Regression	Chapter 26.1-2	Quiz Due Sun. Mar. 1 at 11:59pm
Week 8 (Mar. 2)	Multiple Linear Regression	Chapter 26.3-5 Chapter 27.2	Quiz Due Sun. Mar. 8 at 11:59pm

Week 9 (Mar. 9)	Multiple Linear Regression	Chapter 27.1,3-4	Quiz Due Sun. Mar. 15 at 11:59pm
Week 10 (Mar. 16)	Experimental Design/ANOVA	Chapter 10.3-5, 24.1-3	Assignment due Fri. Mar. 20 at 11:59PM Quiz Due Sun. Mar. 22 at 11:59pm
Week 11 (Mar. 23)	Experimental Design/ANOVA Tutorial: Final Exam Review	Chapter 24.4-5, Chapter 25.1-3	Quiz Due Sun. Mar. 29 at 11:59pm
Week 12 (Mar. 30)	Experimental Design/ANOVA Non-Parametric Tests Tutorial: Final Exam Review	Chapter 28.1-5	No quiz this week.

Course Assessments

Assessment	**Weight**	**Due Date**
Weekly Quizzes (Online through Quercus)	10% (Best 8 out of 10)	Weekly quizzes will be due most weeks, on Sundays at 11:59PM. See 'Course Schedule' for more details.
Term Test	30%	Tues. Feb. 10 during class time (Location: TBA)
Assignment	20%	Fri. March 20 at 11:59PM
Final Exam	40%	To be scheduled by the Faculty

Weekly Quizzes

There will be 10 weekly quizzes available through Quercus. (Some weeks are skipped; see schedule above for more details.) Each quiz will be open for a 72h period and each quiz will be due on Sundays at 11:59PM. The first quiz will end on January 11th. The last quiz will be due on March 29.

Each quiz may consist of multiple choice, T/F, or calculation questions. Within the 72h window for each quiz, you will have 1 hour to complete it.

You will have one attempt for each quiz. The best 8 out of 10 quiz scores will count towards your grade.

The use of course materials and R is permitted during weekly quizzes. Online resources or collaboration with others are not permitted.

Term Test
There will be one term test during the course which will take place on February 10th, at 3:15-4:45PM. This test will take place during class time.

The term test is a timed assessment. By enrolling in this offering of STA221, you are affirming that you are available during the test time slot.

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.
2. **Calculator** (see below for calculator policy)

Assignments
There will be one assignment throughout the term. You should expect the assignment to involve calculations, problem solving questions, coding in R and/or written communication. The assignment is due on Friday, March. 20 at 11:59p.m. The assignment is to be submitted through Crowdmark.

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 determined by the Faculty later on in the term.

The final exam is closed-book and the only aid 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 & Extensions
See below for a more detailed explanation for the policy regarding missed assessments and extensions for each assessment.

- *Missed Quizzes*: Quizzes that are not submitted during the availability window will receive a grade of 0. **No extensions will be granted for quizzes under any circumstances**. However, the lowest 2 quiz grades will be dropped.

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

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

  Students who properly fill out the form will receive an email to confirm that the weight of the missed test will be transferred to the final exam.

- *Missed Assignments*: If the assignment is not submitted by the due date, it will be subject to a late penalty of 20% per day. **No extensions will be provided for the assignment.**

  Alternatively, if the assignment is missed due to an illness or personal emergency please fill out the following form within one week of the missed assessment: Missed Assignment Form

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

  Students who properly fill out the form will receive an email to confirm that the weight of the missed assignment will be transferred to the 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 time.

  Please see the Faculty of Arts and Science Deferred Exam policy for more information.

Remark 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 1 week of the date that the assessment was returned to you.

Please note that your entire test/assignment may be re-marked when submitting a remarking request. It is possible that a remark request will result in a lower mark. For the final exam, the re-mark process will be handled by the Department of Statistical Sciences.

Calculator Policy
Calculators with internet capability are prohibited during assessments.

Computing
An introduction to programming the R statistical software is a learning objective of this course. There are 2 main options for accessing R.

1. You need to first install R, and then R Studio, both of which are freely available. R can be downloaded for free from http://cran.r-project.org. R Studio can be downloaded for free from https://posit.co/download/rstudio-desktop/.

2. Alternatively, you can also use R Studio through the U of T Jupyterhub available here: https://r.datatools.utoronto.ca . After logging in, select New > R Studio.

Course Materials
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 copyright violation 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/.

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**. 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 quizzes, 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 STA221 assessments. You may use code provided by your STA221 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 integrity 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 your instructor via email or by visiting office hours.

Policy on Generative AI
While generative artificial intelligence tools can be used as a source for learning, the use of generative artificial intelligence tools and apps on graded course assessments is strictly prohibited (including quizzes, assignments, and term tests) unless explicitly stated otherwise by the instructor in this course. 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.