



**Department of Psychology
University of Toronto
Course Outline**

**PSY201H1S – LEC5101
Statistics I
Winter 2023**

Professor: Dr. Odilia Yim
E-Mail: odilia.yim@utoronto.ca
Office Hours: By appointment

Course Meeting Time: Tuesday 6:00–8:00pm, Thursday 6:00-7:00pm
Classroom: LM 159 **TA Office Location:** SS 4001

Last names: A – E

Teaching Assistant: Grace Wang
E-Mail: gr.wang@mail.utoronto.ca
Office Hours: Wednesday 2:00-3:00pm

Last names: Lia – Seo

Teaching Assistant: Liliana Wu
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Office Hours: Wednesday 3:00-4:00pm

Last names: F – Li

Teaching Assistant: Tiana Wei
E-Mail: tiana.wei@mail.utoronto.ca
Office Hours: Monday 11:00am-12:00pm

Last names: Sep – Z

Teaching Assistant: Jessica Zaffino
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Office Hours: Wednesday 12:15-1:15pm

Calendar Course Description

Fundamentals of descriptive and inferential statistics, including population and sampling distributions, simple association, probability, estimation, and hypothesis testing.

Prerequisite: PSY100H1/ PSY100Y5/(PSYA01H3 + PSYA02H3) **Exclusion:** ECO220Y1/ EEB225H1/ GGR270H1/ POL222H1/ SOC202H1/ STA220H1/ STA238H1/ STA248H1/ STA288H1/ PSY201H5/ STA215H5/ STA220H5/ PSYB07H3/ STAB22H3/ STAB23H3/ STAB57H3

Note about prerequisites: It is your responsibility to ensure that you have met ALL prerequisites listed in the Psychology section of the A&S Calendar for this course. If you lack any prerequisites, you will be removed. No waivers will be granted.

Intellectual Property Notice:

Dr. Odilia Yim holds the copyright in the works of all original materials used in this course, including this Course Outline. Please do not download, copy, or share any course or student materials. Students registered in this course can only use the materials for the purposes of this course. No other use by them or others is permitted, and there can be no sale or transfer or use of the work for any other purpose without the explicit written permission of Dr. Odilia Yim.

Course Synopsis

The objective of this course is to provide an introduction to statistics and review key statistical tests used in the study of psychology. We will explore topics such as: variables, probability, distributions, and hypothesis testing. These and other topics will be examined using a variety of statistical methods and will be applied to answer different psychology research questions.

Course Objectives

By the end of this course, you should be able:

- To name and apply statistical tests appropriate for different research designs and methods
- To interpret statistical results and interpret their meaning in relation to the research question
- To apply statistical strategies to test research hypotheses and make appropriate conclusions
- To retrieve and critically evaluate statistical information and understand its significance
- To clearly present and communicate statistical findings verbally and in writing

Required Materials

Gravetter, F. J., & Wallnau, L. B. (2017). *Statistics for the Behavioral Sciences* (10th Ed.). Cengage Learning.

MindTap ® Psychology

We will cover at least one chapter per week from the textbook (see Weekly Schedule). Other readings may be assigned to complement lecture and textbook content. Any other readings will be posted on Quercus.

Course Assignments and Evaluation

1.) Test 1	20%
2.) Test 2	25%
3.) Weekly Assignments	10%
4.) Science Communication	10%
5.) Critical Reflections	5%
6.) Final Exam	30%

1.) Test 1 (20%)

2.) Test 2 (25%)

There will be two tests over the course of the semester. The first two tests will focus on class material up to that point and will each be worth 20% and 25% respectively of the course grade.

You are expected to be present for the tests and the tests must be taken as scheduled. Students are advised not to make work, holiday, or travel arrangements that might conflict with their taking of these tests as scheduled. It is the responsibility of the student to inform the instructor of any absences.

Last minute medical excuses or notifications of personal emergencies must be emailed to the instructor by the date of the test, otherwise a grade of "0" will be entered for the test. If you miss a test, you must also follow the procedures described below (see Missed Test/Exam Policy).

3.) Weekly Assignments (10%)

Statistics problem sets will act as weekly "check-ins" to ensure students are progressing with the course content appropriately and efficiently. They will be delivered via the MindTap platform.

4.) Science Communication (10%)

Students will extend their knowledge of statistics and research methods by applying course content to real-world scenarios. The Science Communication assignment will reinforce the importance of knowledge translation and understanding issues related to presenting statistics and research findings in contemporary science communication.

5.) Critical Reflections (5%)

The purpose of journaling is to reflect on one's own individual journey throughout the learning process. The Critical Reflections should demonstrate important moments of growth and key learning during this process. Students are to reflect individually on their own personal development or change in relation to statistical learning, including lessons learned about themselves, their way of learning, and/or any accomplishments or challenges.

6.) Final Exam (30%)

The Final Exam will include questions on topics from the entire semester. The exam will be held during the final examination period.

You are expected to be present for the Final Exam. The exam must be taken as scheduled. Students are advised not to make work, out-of-province placement, holiday, or travel arrangements that might conflict with their taking of the final exam as scheduled. It is suggested that students not make any such commitments until the examination schedule is published.

Quercus

This course uses the University's learning management system, Quercus, to post information about the course. This includes posting readings and other materials required to complete class activities and course assignments, as well as sharing important announcements and updates. The site is dynamic and new information and resources will be posted regularly as we move through the term, so please make it a habit to log in to the site on a regular, even daily, basis. Important announcements will be made here.

To access the course website, go to the U of T Quercus log-in page at <https://q.utoronto.ca>.

Note about grades posted online: Please also note that any grades posted are for your information only, so you can view and track your progress through the course. No grades are considered official, including any posted in Quercus at any point in the term, until they have been formally approved and posted on ACORN at the end of the course. Please contact the instructor and/or TA as soon as possible if you think there is an error in any grade posted on Quercus.

Use of E-Mail

Student communications via e-mail must be sent from a University of Toronto e-mail account. Occasionally, important class announcements may be distributed via e-mail to students' e-mail accounts. Students are required to have a functional e-mail account which can receive these messages and to check for them regularly. Only emails with legitimate inquiries that are sent from University of Toronto accounts and containing "PSY201" in the subject line will receive a response. It is important to include the course code when sending emails as the instructor and TAs may be administering multiple courses this semester.

Classroom Environment

In class, we will strive to create a positive climate of mutual respect in which we can work together as a community of learners and teachers. It is expected that students attend all classes for the full time period.

Arriving late, leaving early, failing to turn off or mute cell phones, and using laptops or other electronic devices for non-course-related purposes all show disrespect for the instructor and classmates. Full attention, diligent preparation, and active participation are all signs of respect and are key to successful learning. Please be careful to avoid remarks that may be offensive to others based on their race, class, gender, faith, age, ability, appearance, or sexual orientation.

Equity, Diversity and Inclusion

The University of Toronto is committed to equity, human rights and respect for diversity. All members of the learning environment in this course should strive to create an atmosphere of mutual respect where all members of our community can express themselves, engage with each other, and respect one another's differences. U of T does not condone discrimination or harassment against any persons or communities.

Submitting Work

Please ensure that name(s), student number(s), instructor's name, course code and title, and submission date are on the front page of any work submitted. Students are recommended to keep photocopies or electronic copies of all assignments.

Penalties for Lateness

All course assignments must be submitted as specified by the due date. Failure to do so will result in a late penalty of five points per calendar day, up to seven calendar days. After seven days, the work will no longer be accepted and a grade of "0" will be given.

Plagiarism Detection Tools

Normally, students will be required to submit their course essays to the University's plagiarism detection tool for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the tool's reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of this tool are described on the Centre for Teaching Support & Innovation website (<https://uoft.me/pdt-faq>).

Students who wish to opt-out of using the University's plagiarism detection tool for the final paper must notify the instructor no later than Tuesday, February 7, 2023. Upon receipt of notification, the instructor will request that the student provide all rough work (including, but not limited to, call numbers and/or URLs for all cited sources) when submitting their final paper.

Re-marking Policy

Please consider carefully before contesting your grade for an assignment or test. Course instructors and TAs work very hard to mark course assignments and tests as fairly as possible. If you have concerns about how an assignment was graded, please first meet with the TA who graded your term work. If, after your meeting, you still would like to have your term work re-graded, please submit the request to the instructor. If your request is granted, the instructor will then re-grade an item of term work once and re-grading may result in: an increase in grade, a decrease in grade, or no change in grade. Students have a maximum of two weeks from when the work was returned (or receive any term work grades) to make such a request to the instructor or TA regarding re-marking, review, or ask about grading.

Missed Test/Exam Policy

If you miss a test, you must contact the instructor and/or TA as soon as possible (along with proof of the ACORN Absence Declaration) and no later than one week after the missed test date to request special consideration.

Students who miss a test for any reason (e.g., COVID, cold, flu and other illness or injury, family situation) and request special consideration must report their absence through the online absence declaration tool. The declaration tool is available on ACORN under the Profile and Settings menu. Students are required to include a screenshot of the confirmation number from the declaration tool to accompany their request.

If an absence extends beyond 7 consecutive days, or if you have a non-medical personal situation preventing you from completing your academic work, you should connect with your College Registrar. They can provide advice and assistance reaching out to instructors on your behalf.

If your request is approved the weight of the missed test will be redistributed equally between the other Test and the Final Exam (i.e., one-half of the weight of the missed test will be redistributed to the other test and the remaining half to the final assessment). There are no make-up tests.

Students who miss the final assessment should file a petition for a deferred exam with their College Registrar's Office.

Accommodations

Religious Accommodations

As a student at the University of Toronto, you are part of a diverse community that welcomes and includes students and faculty from a wide range of cultural and religious traditions. For my part, I will make every reasonable effort to avoid scheduling tests, examinations, or other compulsory activities on religious holy days not captured by statutory holidays. Further to University Policy, if you anticipate being absent from class or missing a major course activity (such as a test or in-class assignment) due to a religious observance, please let me know as early in the course as possible, and with sufficient notice (at least two to three weeks), so that we can work together to make alternate arrangements.

Students with Disabilities or Accommodation Requirements

Students with diverse learning styles and needs are welcome in this course. If you have an acute or ongoing disability issue or accommodation need, you should register with Accessibility Services (AS) at the beginning of the academic year by visiting <http://www.studentlife.utoronto.ca/as/new-registration>. Without registration, you will not be able to verify your situation with your instructors, and instructors will not be advised about your accommodation needs. AS will assess your situation, develop an accommodation plan with you, and support you in requesting accommodation for your course work. Remember that the process of accommodation is private: AS will not share details of your needs or condition with any instructor, and your instructors will not reveal that you are registered with AS.

Accommodation for Personal Reasons

There may be times when you are unable to complete course work on time due to non-medical reasons. If you have concerns, speak to me or to an advisor in your College Registrar's office; they can help you to decide if you want to request an extension or accommodation. They may be able to provide you with a College Registrar's letter of support to give to your instructors, and importantly, connect you with other resources on campus for help with your situation

Academic Integrity

All students, faculty and staff are expected to follow the University's guidelines and policies on academic integrity. For students, this means following the standards of academic honesty when writing assignments, collaborating with fellow students, and writing tests and exams. Ensure that the work you submit for grading represents your own honest efforts.

Plagiarism—representing someone else's work as your own or submitting work that you have previously submitted for marks in another class or program—is a serious offence that can result in sanctions.

The penalties for academic misconduct are severe. If you are in any doubt as to whether something you are considering constitutes academic misconduct, please feel free to ask the instructor or your TA for advice on anything that you find unclear

To learn more about how to cite and use source material appropriately and for other writing support, see the U of T writing support website at <http://www.writing.utoronto.ca>. Consult the Code of Behaviour on Academic Matters for a complete outline of the University's policy and expectations. For more information, please see <https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity> and <http://academicintegrity.utoronto.ca>.

Resources

Writing

As a University of Toronto student, you are expected to write well. The university provides its students with a number of resources to help them achieve this. For more information on campus writing centres and writing courses, please visit <http://www.writing.utoronto.ca/>.

Mental Health and Well-Being

As a student, you may experience challenges that can interfere with learning, such as strained relationships, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation, financial concerns, family worries and so forth. These factors may affect your academic performance and/or reduce your ability to participate fully in daily activities. Everyone feels stressed now and then – it is a normal part of university life. Some days are better than others, and there is no wrong time to reach out. There are resources for every situation and every level of stress.

An important part of the University experience is learning how and when to ask for help. Please take the time to inform yourself of available resources. Here are some ways to access the many helpful resources available:

Student Life Programs and Services (<http://www.studentlife.utoronto.ca/>)

Academic Success Services (<http://www.studentlife.utoronto.ca/asc>)

Counselling and Psychological Services (<http://www.studentlife.utoronto.ca/hwc>)

PSY201 – Weekly Schedule

WEEK	DATE	TOPIC	ASSIGNMENT
1	Jan. 10	Introduction to Statistics	
	Jan. 12	Review course syllabus, assignments, expectations ➤ Chapter 1	
2	Jan. 17	Frequency Distributions	DUE: Chapter 1
	Jan. 19	➤ Chapter 2	
3	Jan. 24	Central Tendency and Variability	DUE: Chapter 2
	Jan. 26	➤ Chapter 3 ➤ Chapter 4	
4	Jan. 31	z-scores and the Normal Distribution	DUE: Chapter 3, 4
	Feb. 2	➤ Chapter 6 ❖ Reflection Writing	
5	Feb. 7	Sampling Distribution of Sample Means	DUE: Chapter 5, 6
	Feb. 9	Test 1 Review	
6	Feb. 14	TEST 1	
	Feb. 16	Introduction to Hypothesis Testing ➤ Chapter 8	DUE: Chapter 7
7	Feb. 21 Feb. 23	READING WEEK	
8	Feb. 28	t-tests	DUE: Chapter 8
	Mar. 2	➤ Chapter 9	DUE: Critical Reflection #1
9	Mar. 7	t-tests using Two Samples	DUE: Chapter 9
	Mar. 9	➤ Chapter 10, 11	
10	Mar. 14	ANOVA ➤ Chapter 12 ❖ Statistical Literacy & Science Communication	DUE: Chapter 10, 11
	Mar. 16	Test 2 Review	
11	Mar. 21	TEST 2	
	Mar. 23	ANOVA (continued)	DUE: Chapter 12
12	Mar. 28	Correlations	
	Mar. 30	➤ Chapter 15	DUE: Science Communication
13	Apr. 4	Exam Review	DUE: Chapter 15
	Apr. 6		DUE: Critical Reflection #2