Psychology
UNIVERSITY OF TORONTO

PSY 201H1F LEC5101: Statistics I

May 6 – June 17 2024

In-person in WB 116 on Mondays & Wednesdays 6–9pm

Contact Information

Course Instructor
Dr. Jason W. Payne
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Write PSY201 in the subject line of all email communications.

For most questions or concerns Eric Cui should be the first person to contact.

Please do not message the TAs or the CI using Quercus Inbox.

Office Hours requested by email. Zoom meeting are preferred.

Teaching Assistants
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Course Description

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

Prerequisites PSY100H1/ PSY100Y5/ (PSYA01H3, PSYA02H3)/ COG250Y1

Exclusions ECO220Y1/ EEB225H1/ GGR270H1/ IRW220H1/ POL222H1/ SOC202H1/ STA220H1/ STA238H1/ STA248H1/ STA288H1/ PSY201H5/ STA215H5/ STA220H5/ PSYB07H3/ STAB22H3/ STAB23H3/ STAB57H3

Course Materials

MindTap ® Psychology, ISBN: 978-1-337-28075-4 (The required-homework is administered on MindTap) It is cheaper from the UofT bookstore (65$ vs. 100$)
Course code: MTPPJ7K3FZGS

Gravetter, F. J., & Wallnau, L. B. (2017). Statistics for the Behavioral Sciences (10th Ed.). Boston, MA: Cengage Learning. ISBN: 978-1-337-36622-9
(The required eTextbook is included with MindTap)

How To Lie with Statistics by Darrell Huff (Recommended)

Nagy et al. (pre-print) and Ioannidis (2019) will be on Moodle

Course Objectives

Understand the fundamental premises for statistics as a tool in science and social science.

Interpret the meaning of basic measures of central tendency and variability.

Be able to conduct basic descriptive and inferential calculations.

Be able to express the uses and limitations of fundamental statistical tools.

Distinguish between statistically significant and chance findings in data.

Apply statistical reasoning appropriately.

Recognize when statistics are presented in an inaccurate or misleading way.

Assess the validity of statistical conclusions.

Important Dates

First day F classes Mon. May 6, 2024

"FINCA process" registration cancelled for financial reasons Wed. May 8, 2024

Last day of F waitlist Thurs. May 9, 2024

Last day to enrol in F courses via ACORN Sun. May 12, 2024

100% Refund deadline F courses Sun. May 12, 2024

75% Refund F-term courses Mon. May 20, 2024

Victoria Day Mon. May 20, 2024

Last day to drop F courses Mon. June 3, 2024

50% Refund F-term courses Mon. June 3, 2024

Last day of F classes Mon. June 17, 2024

Study Day Tues. June 18, 2024

June Final Assessment period Wed. June 19 – Mon. June 24, 2024

June Special Deferred exams Tues. June 25 – Thurs. June 27, 2024

Marking Scheme

Problem Sets (Online) 15%
Midterm 1 (In-person) 15%
Midterm 2 (In-person) 25% Non-cumulative
Practical Paper   15%
Final Exam (Online)   30% Cumulative
No option for research participation extra credit

See due dates below in the course outline. Two problem set grades will be dropped and thus can be missed for any reason. Late problem set submissions will not be accepted.
For the practical paper there will be a 10% deduction per day for late submissions.

Course Outline

Date	Topic	Reading	Problem Set Due
May 6	Intro to the course Variables and Measurement	Ch 1	
May 8	Frequency Distributions	Ch 2	Problem Set 1
May 13	Central Tendency	Ch 3	Problem Set 2
May 15	Variability	Ch 4	Problem Set 3
May 20 HOLIDAY	NO MAKEUP CLASS		
May 22 Midterm 1	Midterm 1 Followed by class on z-scores	Ch 5	Problem Set 4
May 27	Probablity	Ch 6	Problem Set 5
May 29	Probability and Samples	Ch 7	Problem Set 6
June 3	Hypothesis Testing	Ch 8; Ioannidis, 2019	Problem Set 7
June 5 Midterm 2	MIDTERM 2 Followed by class on t-scores	Ch 9	Problem Set 8
June 10	T-test for independent samples	Ch 10	Problem Set 9
June 12	T-Test for related samples	Ch 11	Problem Set 10 Paper Due
June 17	Correlation	Ch 15; Nagy, et al. pre-print	Problem Set 11
June 19–24	**FINAL EXAM (Online and open book)** **The date will be announced by the Exam Office**		Problem Set 15

Practical Paper

The aim of this assignment is to use your knowledge from this course to critically analyze a popular report of basic statistical result.

You are asked to find a popular report of a statistical result. Querying the keyword "study finds" should be a good place to start. Read the report as well as the empirical article that the report is based on. You should focus on a report that compares only two groups (i.e. t-test) or two measures (i.e. an r correlation coefficient). Write a report of no more than 5 double-spaced pages on the use and most likely the misuse of those statistics. These submissions must include the limitations of the statistical results both stated and also implied from your knowledge of the course material.

Plagiarism Detection Tool: 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 web site (https://uoft.me/pdt-faq).

Recording Lectures (by Student)

The University of Toronto considers an instructor's lectures and course material to be the instructor's intellectual property and covered by the Canadian Copyright Act.

Important: Students wishing to record lectures or other course material in any way are required to ask the instructor's explicit written permission and may not do so unless written permission is granted. This includes audio and video recording.

Photographing slides is permitted for this class and should be treated the same as the slide PDFs.

Granting permission to record or photograph applies only for that individual student's own study purposes and does not include permission to "publish" or distribute them in any way. It is forbidden for a student to publish an instructor's notes on a website or to sell them in other form without formal permission.

Student Absences

As a rule, makeup tests will not be issued. If you miss a term test, your other term test and the final assessment will be reweighed to make up the missing chunk of your grade. Students have up to one week from the missed test to reach out to you and provide documentation for missing it.

Specific Medical Circumstances: If you become ill and it affects your ability to do your academic work, consult with me directly right away. Normally, I will ask you for documentation in support of your specific medical circumstances. This documentation can be an Absence Declaration (via ACORN) or the University's Verification of Student Illness or Injury (VOI) form. The VOI indicates the impact and severity of the illness, while protecting your privacy about the details of the nature of the illness. If you cannot submit a VOI due to limits on terms of use, you can submit a different form (like a letter from a doctor), as long as it is an original document, and it contains the same information as the VOI (including dates, academic impact, practitioner's signature, phone and registration number). For more information on the VOI, please see www.illnessverification.utoronto.ca. For information on Absence Declaration Tool for A&S students, please see www.artsci.utoronto.ca/absence. If you get a concussion, break your hand, or suffer some other acute injury, you should register with Accessibility Services as soon as possible.

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 other forms of academic consideration. They may be able to email your instructors directly to provide a College Registrar's letter of support and connect you with other helpful resources on campus.

Accommodation for Religious Observances: 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.

Academic Integrity

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters (https://governingcouncil.utoronto.ca/secretariat/policies/code-behaviour-academic-matters-july-1-2019). If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, please reach out to me. Note that you are expected to seek out additional information on academic integrity from me or from other institutional resources. For example, 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 A&S Student Academic Integrity (https://www.artsci.utoronto.ca/current/academic-advising-and-support/student-academic-integrity) and the University of Toronto Website on Academic Integrity (https://www.academicintegrity.utoronto.ca).

Use of Generative AI in Assignments

The use of generative artificial intelligence tools or apps for assignments in this course, including tools like ChatGPT and other AI writing or coding assistants, is prohibited.

The knowing use of generative artificial intelligence tools, including ChatGPT and other AI writing and coding assistants, for the completion of, or to support the completion of, an examination, term test, assignment, or any other form of academic assessment, may be considered an academic offence in this course.

Representing as one's own an idea, or expression of an idea, that was AI-generated may be considered an academic offence in this course

Students may not copy or paraphrase from any generative artificial intelligence applications, including ChatGPT and other AI writing and coding assistants, for the purpose of completing assignments in this course.

The use of generative artificial intelligence tools and apps is strictly prohibited in all course assignments 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.

This course policy is designed to promote your learning and intellectual development and to help you reach course learning outcomes.

Student Resources

Accessibility Services (AS): 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 https://studentlife.utoronto.ca/department/accessibility-services. 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.

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.
There are many helpful resources available through your College Registrar or through Student Life (http://studentlife.utoronto.ca and www.studentlife.utoronto.ca/feeling-distressed). 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.

Writing: As a student here at the University of Toronto, 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 check in with your College Registrar or visit www.writing.utoronto.ca.

Recognized Study Group: Lead or Join a Recognized Study Group (RSG) for this course Apply now to be an RSG Leader for this course. RSGs are peer-led study groups of up to 8 students enrolled in the same A&S course. Find more information visit www.uoft.me/rsgs

Requests for Regrading: Students have two weeks from when the work was returned to make such a request for regarding. Students must have a pedagogical reason for asking for a regrade and not simply because one thinks the grade should be higher.