



AFFILIATED WITH THE UNIVERSITY OF WATERLOO

Renison University College
Affiliated with the University of Waterloo
40 Westmount Road North
Waterloo, ON Canada N2L 3G4
Phone: 519-884-4404 | uwaterloo.ca/renison

Renison University College Land Acknowledgement

With gratitude, we acknowledge that Renison University College is located on the traditional territory of the Attawandaron (also known as Neutral), Anishinaabe, and Haudenosaunee peoples, which is situated on the Haldimand Tract, the land granted to the Six Nations that includes ten kilometres on each side of the Grand River. Our active work toward reconciliation takes place across our campuses through research, learning, teaching, community building and outreach, and is centralized within the work of our Truth and Reconciliation Working Group and the [University of Waterloo's Office of Indigenous Relations](#).

Winter 2023

Course Code: SDS 250R /SWREN 250R (Section 1 & 2)

Course Title: Social Statistics

Section 1: Tuesdays & Thursdays 10:00-11:20 at REN 2106

Section 2: Tuesdays & Thursdays 2:30- 3:50 at REN 2106

Instructor: Dr. Hsiao d'Ailly

Office: REN 1606

Office Phone: 519.884.4404 ext. 28643

Office Hours: Tuesdays & Wednesdays 1:30-2:20 or by appointment

Email: hdaily@uwaterloo.ca

Course Description

The primary goal of this course is to help students become informed consumers of quantitative information in social science research. Emphasis will be placed on understanding basic principles of statistics and learning when and how to apply them.

Course Objectives and Learning Outcomes - (Upon completion of this course, students should be able to)

- explain how statistics are used in social science research to organize quantitative information, test hypotheses, and report research findings
- identify variables in a data set and the level of measurement for each variable
- use various descriptive statistics, tables, and graphs to summarize quantitative information, including data that you collect yourself, or data presented to you through different sources
- describe the logic of hypothesis testing procedures and the use of inferential statistics in social research
- use appropriate statistics to answer different research questions and test different hypotheses involving one or two variables
- read with ease basic quantitative information, including tables and graphs, and research "findings", including hypothesis testing results in academic journals and general media

Required Text

Heiman, G.W. (2015). Behavioural Sciences 2 STAT. Toronto: Houghton Mifflin.

Note: A printed version of the textbook is required as all the exams are open book.

Course Notes and Worksheets Available on LEARN

Extensive course notes and worksheets to be used in the class are available on Learn. Students are encouraged to print a copy of the worksheets and bring them to the class.

Grading and Due Dates

Components	Weight	Date	Instruction
Assignment 1	5%	Jan 24	Posted on Learn
Assignment 2	5%	Mar 2	Posted on Learn
On-line Activities/Quizzes	15%	Weekly on Learn/Mobius	Posted on Learn
Review Modules	15%	Weekly on Learn/Mobius	Posted on Learn
Midterm Exam 1	15%	Feb 2	
Midterm Exam 2	15%	March 16	
Final Exam	30%	To be Announced	

Course Outline

An outline of the term's work follows. For various reasons, however, it is sometimes necessary to deviate from this schedule. Such deviations in the scheduling or nature of tests or other work will be announced in class and/or posted on LEARN. Missing such announcements is not an excuse for being unaware of the changes

Week	Date	Topic	Readings Due
1	Jan 9 – 13	Introductory, Research Methodology, Frequency Distributions	Chapter 1 & 2
2	Jan 16 – 20	Central Tendency, Variability	Chapter 3 & 4
3	Jan 23 – 27	Normal Curve, Z-Score, Sampling Distributions	Chapter 5
	Jan 24	<i>Assignment 1 Due (5%)</i>	
4	Jan 30 – Feb 3	More on the Normal Curve, Review	Chapter 5
	Feb 2	<i>First Exam (15%)</i>	
5	Feb 6 – 10	Correlation	Chapter 10-1; 10-2
6	Feb 13 – 17	More on Correlation, Regression (10-5; 10-6)	Chapter 10-5; 10-6
	Feb 20	Family Day	
	Feb 21 – 24	Reading Week	
7	Feb 27 – Mar 3	Basic Probability (Appendix 3), Hypothesis Testing (10-3; 10-4)	Appendix 3; Chapter 10-3; 10-4
	Mar 2	<i>Assignment 2 due (5%)</i>	
8	Mar 6 – 10	Z tests, Errors, Directionality, t test	Chapter 7 & 8
9	Mar 13 – 17	t-Test and Confidence Intervals	Chapter 8
	March 16	<i>Second Exam (15%)</i>	
10	Mar 20 – 24	t-test with 2 Samples	Chapter 9
11	Mar 27 – 31	The One-Way Analysis of Variance (ANOVA)	Chapter 11
12	Apr 3 – 6	Chi-Square & Other Non-parametric Tests	Chapter 13
	Apr 7	Good Friday	
	Apr 10	Lectures ends	

Late or Incomplete Work

Assignments are due on the listed due date. Online activities and quizzes will be closed on the due dates specified on Learn. Tests must be written on the scheduled date at the scheduled time (please see below the UW practices on Accommodation for Illness or Unforeseen Circumstances). Missed tests or assignments will receive a grade of zero.

Electronic Device Policy

Students who choose to use electronic devices to support their learning may do so provided that the individuals in the class are not disturbed or prohibited from their own learning. Electronic devices should be used for the purposes of supplementing the learning experience and focus on topics being discussed in class. Phones should be kept on silent during the class.

Policy on Plagiarism

“Policy 71’s glossary defines plagiarism, in part, as “presenting, whether intentionally or not, the ideas, expression of ideas or work of others (whether attributed or anonymous) as one’s own in any work submitted whether or not for grading purposes”...

The Vice-President Academic and Dean has the authority to assess instances of plagiarism and the resultant penalties that are raised by an instructor. An instructor can propose a grade penalty to the Vice-President Academic and Dean, who will decide whether to accept the penalty or initiate a formal inquiry.”

For additional information on how plagiarism is dealt with at Renison, review the policy from where the above text is copied: [Policy 71 - Student Discipline](#).

Students should also be aware that copyright laws in Canada prohibit reproducing more than 10% of any work without permission from its author, publisher, or other copyright holder. See Waterloo’s policy on [Fair Dealing](#). Violation of Canada’s Copyright Act is a punishable academic offence under [Policy 71 – Student Discipline](#).

Electronic Device Policy

Students who choose to use electronic devices to support their learning may do so provided that the individuals in the class are not disturbed or prohibited from their own learning. Electronic devices should be used for the purposes of supplementing the learning experience and focus on topics being discussed in class. Phones should be kept on silent during the class.

Communication Policy

Email, using the uWaterloo provided email address, is the approved method of communication for Renison. The Office 365 email that you use to login using your WatIAM login and password is secure and confidential. Take caution when forwarding your WatIAM email to an external email service as confidential information forwarded to a third-party provider could be a data

security breach and violation of FIPPA (Freedom of Information and Protection of Privacy Act) under which all students, staff, and faculty are bound by law.

Final Examination Policy

For **Winter 2023**, the established examination period is **April 13-28**. The schedule will be available early February. Students should be aware that student travel plans are not acceptable grounds for granting an alternative final examination time. See the [Final Examination Schedule](#).

Accommodation for Illness or Unforeseen Circumstances

The instructor follows the practices of the University of Waterloo in accommodating students who have documented reasons for missing quizzes or exams. See [Accommodation due to illness](#).

Academic Integrity, Grievance, Discipline, Appeals and Note for Students with Disabilities

Academic Integrity: To maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect, and responsibility. See the [UWaterloo Academic Integrity](#) and the [Arts Academic Integrity](#) websites for more information.

Renison University College is committed to the view that when a problem or disagreement arises between a faculty member and a student every effort should be made to resolve the problem through mutual and respectful negotiation. Most issues are resolved by a student/faculty meeting to discuss differences of opinion. It is only after this stage, when a common understanding or agreement is not obtained that further actions listed below could be taken.

Discipline: Every student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for their own actions. [Check the [Office of Academic Integrity](#) website for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration, should seek guidance from the course professor or academic advisor. When misconduct has been found to have occurred, disciplinary penalties are imposed under the University of Waterloo [Policy 71 – Student Discipline](#). For information on categories of offences and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties check the [Guidelines for the Assessment of Penalties](#).

Grievance: A student who believes that a decision affecting some aspect of their university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4](#). When in doubt, please be certain to contact the Department's administrative assistant, or Academic Advisor, who will provide further assistance.

Appeals: A decision made or penalty imposed under [Policy 70, Student Petitions and Grievances](#) (other than a petition) or [Policy 71, Student Discipline](#) may be appealed if there is a ground. A student who believes they have a ground for an appeal should refer to [Policy 72, Student Appeals](#).

Academic Integrity Office (UWaterloo): The website can be found at uwaterloo.ca/academic-integrity/

Accommodation for Students with Disabilities

[AccessAbility Services](#) is located in Needles Hall, Room 1401, and collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

Students are encouraged to register with AccessAbility Services (AAS) at the start of each term if they require accommodations due to a disability. However, some students not connected to AAS may require accommodations later in the term. In that case, you should immediately consult with your instructor and/or your Academic Advisor.

Intellectual Property

Students should be aware that this course contains the intellectual property of the instructor, which can include:

- lecture handouts and presentations (e.g., PowerPoint slides)
- lecture content, both spoken and written (and any audio or video recording thereof)
- questions from various types of assessments (e.g., assignments, quizzes, tests, final exams)
- work protected by copyright (i.e., any work authored by the instructor)

Making available the intellectual property of instructors without their express written consent (e.g., uploading lecture notes or assignments to an online repository) is considered theft of intellectual property and subject to disciplinary sanctions as described in [Policy 71 – Student Discipline](#). Students who become aware of the availability of what may be their instructor’s intellectual property in online repositories are encouraged to alert the instructor.

Mental Health Support

All of us need a support system. The faculty and staff in Arts encourage students to seek out mental health supports if they are needed.

On Campus

- [Counselling Services](#): counselling.services@uwaterloo.ca / 519-888-4096
- [MATES](#): one-to-one peer support program offered by the Waterloo Undergraduate Student Association (WUSA) and Counselling Services
- [Health Services](#) – Student Medical Clinic: located across the creek from Student Life Centre

Off Campus, 24/7

- [Good2Talk](#): Free confidential help line for post-secondary students. Phone: 1-866-925-5454
- [Empower Me](#): Confidential, multilingual, culturally sensitive, faith inclusive mental health and wellness service.
- Grand River Hospital: Emergency care for mental health crisis. Phone: 844-437-3247
- [Here 24/7](#): Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- [OK2BME](#): set of support services for lesbian, gay, bisexual, transgender, or questioning teens in Waterloo. Email: ok2bme@kwcounselling.com Phone: 519-884-0000

Full details can be found online at the [Faculty of ARTS](#) website.

Download [UWaterloo and regional mental health resources \(PDF\)](#)

Download the [WatSafe](#) app to your phone to quickly access mental health support information.

A Respectful Living and Learning Environment for All

Everyone living, learning, and working at Renison University College is expected to contribute to creating a respectful environment free from harassment and discrimination.

Harassment is unwanted attention in the form of disrespectful comments, unwanted text messages or images, degrading jokes, rude gestures, unwanted touching, or other behaviours meant to intimidate.

According to the Ontario Human Rights Code, discrimination means unequal or different treatment causing harm, whether intentional or not, because of race, disability, citizenship, ethnic origin, colour, age, creed, marital status, sex, sexual orientation, gender identity, and gender expression, or other personal characteristic.

If you feel that you are experiencing the above from any member of the Renison community (students, staff, or faculty), you may contact Melissa Knox, Renison's external anti-harassment and anti-discrimination officer, by email (mnknox@uwaterloo.ca) or by phone or text (226-753-5669). Melissa is an employment and human rights lawyer and part-time Assistant Crown Attorney for the Ontario Ministry of the Attorney General. Melissa is experienced in case management, discipline and complaints processes, and works with organizations across Canada to foster safe, respectful, and inclusive work and learning environments through policy development, educational workshops, conflict mediation and dispute resolution, and organizational culture audits.

For additional information see Renison's [Harassment, Discrimination, and Abuse](#) policy.