

Calculator: Your calculator should be able to calculate at least one-variable statistics. If you're not sure about your calculator, please just ask me.

Course Description and Objectives:

Statistical reasoning is used widely for establishing social policy, health research, evaluation of foods, political forecasting, etc. Researchers are faced with the questions of how to design surveys and experiments; how to obtain valid data; how to analyse the data properly; how to make relevant interpretations. This course examines some of these questions and attempts to start answering them. It recognizes the importance of having a quantitatively literate citizenry and it will help you understand the importance of developing skills in the critical reading of your area of study as well as the popular media. By the end of the course you should:

- be familiar with the basic vocabulary of Statistics;
- be able to calculate descriptive statistics and perform exploratory data analyses;
- be able to investigate relationships between two variables;
- know basic study designs;
- understand randomness and probability and be able to apply probability rules;
- be able to calculate the mean and variance of a random variable;
- understand population distributions and sampling distributions;
- understand and be able to apply basic confidence intervals and hypothesis testing;
- be able to use and understand output from SPSS for basic statistical analyses.

We will work through most of the first seven chapters of the textbook, *Introduction to the Practice of Statistics, 9th Edition*. The answers for odd-numbered exercises in the text are given at the end of the book. Do as many of these as you feel you need in order to understand the concepts and techniques covered in the course.

Marking Scheme and Test Dates:

Assignments	20%	4 assignments/quizzes
Test 1	20%	Online (90 minutes)
Test 2	20%	Online (90 minutes)
Final Exam	40%	Online (120 minutes), Friday, December 11 at 11:30 - 13:30

NOTE: You should have **NO** conflicts concerning these dates and times. If you do it is your responsibility to resolve them as soon as possible.

POLICY for Missed Tests: If you miss a test during the semester for a **documented** valid reason (e.g., medical illness) your final exam will be reweighted to make up for the missed test.

If you miss the final exam for any reason, you must see your program counsellor. University regulations require specific procedures to be followed regarding the conduct of final exams, including recourse, if any, for missed final examinations. These procedures are out of my control.

Tests and Exam Calculator:

You must have a stand-alone calculator for all tests and the final exam. You will **not** be permitted to use a calculator on a laptop computer, smartphone, etc. If you are discovered to be using anything but a stand-alone calculator during a test or the final exam, it will be reported as possible academic

misconduct.

Assignments:

The assignments support and supplement the lectures. Working through examples and assigned problems is the key to success in the course. You are responsible for doing your own work. It is definitely beneficial to work with others but getting another student to do your assignment for you is an academic misconduct.

We will be using the Courselink site for assignment distribution and for assignment answer submission. You can get access by going to <http://courselink.uoguelph.ca/> and then you log in using your university account login and password (the one you use for Gryph Mail). Assignments will be made available to you via pdf files on the STAT*2080 Courselink site. You will be required to submit assignment responses via the appropriate assignment “quiz” on the Courselink site by a specified due date and time. You will be able to have 2 attempts when entering your answers until the time that the assignment is due. **Your final attempt is the one that will be graded and will count toward your final assignment grade.** Remember to save your answers right after you enter them and then finally submit the quiz at some time prior to the time that the assignment is due. There will be enough time to do the assignments and to submit your answers so the only legitimate reason for a late assignment would be a campus-wide failure of the Courselink system that I will definitely be aware of and that I will take into account since it will affect the entire STAT*2080 class.

STAT*2080 Teaching Assistants:

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Recording of Materials:

Presentations that are made in relation to course work – including lectures – cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

E-mail Communication: As per university regulations, all students are required to check their <mail.uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

When You Cannot Meet a Course Requirement: When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The regulations and procedures for [Academic Consideration](#) are detailed in the Undergraduate Calendar.

Drop Date: Students will have until the last day of classes (Friday, Dec. 4th) to drop courses without academic penalty. Review the Undergraduate Calendar for regulations and procedures for Dropping

Courses.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Copies of Assignments: Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

Accessibility: The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

For more information, contact [Student Accessibility Services](#) at 519-824-4120 ext. 56208 or email accessibility@uoguelph.ca

Academic Misconduct:

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The [Academic Misconduct Policy](#) is detailed in the Undergraduate Calendar

Resources: The [Academic Calendars](#) are the sources of information about the University of Guelph's procedures, policies and regulations that apply to undergraduate, graduate and diploma programs.

Tentative Course Schedule:

Dates	Topics	Textbook	Assignments
Week 1 Sep. 7-13	Ch.1: Data; Displaying distributions with graphs; Describing distributions with numbers	Chapter 1	Assignment 1 due Sep. 28 at 11:59pm (5%)
Week 2 Sep. 14-20	Ch.1: Density curves and Normal distributions		
Week 3 Sep. 21-27	Ch.2: Scatterplots; Correlation; Least-squares regression; Cautions about correlation and regression; The question of causation	Chapter 2	
Week 4 Sep. 28-Oct. 4	Ch.3: Sources of data; Design of experiments; Sampling design	Chapter 3	Assignment 2 due Oct. 5 at 11:59pm (5%)
Week 5 Oct. 5-11	Online Test 1 (20%) 90 minutes Thursday 8 at 12:00 – 6:00 pm		
Week 6 Oct. 12-18	Ch.4: Toward statistical inference; Randomness; Probability models	Chapter 4	Assignment 3 due Nov. 9 at 11:59pm (5%)
Week 7 Oct. 19-25	Ch.4: Random variables; Means and variances of random variables		
Week 8 Oct. 26-Nov. 1	Ch.5: The sampling distribution of the sample mean	Chapter 5	
Week 9 Nov. 2-8	Ch.5: Sampling distributions for counts and proportions		
Week 10 Nov. 9-15	Ch.6: Estimating with confidence	Chapter 6	Assignment 4 due Nov. 23 at 11:59pm (5%)
Week 11 Nov. 16-22	Ch.6: Tests of significance		
Week 12 Nov. 23-29	Online Test 2 (20%) 90 minutes Thursday 26 at 12:00 – 6:00 pm		
Week 13 Nov. 30-Dec. 6	Ch.7: Inference for the mean of a population	Chapter 7	
Week 14 Dec. 7-13	Online Final Exam (40%) 120 minutes Dec. 11, 11:30-13:30		

*** NOTE: The STAT*2080 Fall 20 Final Examination is on Friday December 11; 11:30 to 13:30 (ONLINE)**

Online Behaviour:

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students
- Using obscene or offensive language online
- Copying or presenting someone else's work as your own
- Adapting information from the Internet without using proper citations or references
- Buying or selling term papers or assignments
- Posting or selling course materials to course notes websites

- Having someone else complete your quiz or completing a quiz for/with another student
- Stating false claims about lost quiz answers or other assignment submissions
- Threatening or harassing a student or instructor online
- Discriminating against fellow students, instructors and/or TAs
- Using the course website to promote profit-driven products or services
- Attempting to compromise the security or functionality of the learning management system
- Sharing your user name and password
- Recording lectures without the permission of the instructor

Recording of Lecture Materials:

The University of Guelph's primary mode of course delivery has shifted from face-to-face instruction to remote and online learning due to the ongoing COVID-19 pandemic. As a result, some learning activities (e.g., synchronous lectures or student presentations) may be recorded by faculty, instructors and TAs and posted to CourseLink for grading and dissemination; students may be recorded during these sessions.

By enrolling in a course, unless explicitly stated and brought forward to their instructor, it is assumed that students agree to the possibility of being recorded during lecture, seminar or other "live" course activities, whether delivery is in-class or online/remote.

If a student prefers not to be distinguishable during a recording, they may:

1. turn off their camera
2. mute their microphone
3. edit their name (e.g., initials only) upon entry to each session
4. use the chat function to pose questions.

Students who express to their instructor that they, or a reference to their name or person, do not wish to be recorded may discuss possible alternatives or accommodations with their instructor.