Carleton University | Department of Economics

ECON 2210S: Introductory Statistics for Economics

Summer 2026

Course Outline

General Information

Course Instructor: Olivia Jiang
Email: oliviajiang@cunet.carleton.ca
Office Hours: TBA
Office Location: Dunton Tower 1121

TA: TBA
Email: TBA
Office Hours: NA

Course Delivery: Live online classes delivered via Zoom, with an in-person final exam on campus.
Brightspace Course Webpage: https://brightspace.carleton.ca/d2l/home/420815
Zoom Access: Accessible via the Zoom tab on Brightspace
Course Day and Time: Mondays and Wednesdays, 18:05 - 21:25.
Tutorial Day and Time: Mondays and Wednesdays, 16:35 - 17:25.

The Course

Course Description

This course presents basic statistical methods for the study of economics. Topics include descriptive statistics, elementary probability theory, sampling distributions, estimation and hypothesis testing for one and two population parameters.

Learning Outcomes

By the end of this course, students will:

1. be conversant with and be able to define a range of basic statistical terminology;
2. have a general understanding of how data are collected and organized for statistical purposes;
3. understand the fundamentals of data visualization, including the construction and interpretation of elementary graphs, charts, and tables;
4. be able to describe data using standard numerical measures of central tendency and variation;
5. have a grounding in elementary probability theory and the basic rules of probability;
6. understand the concept of a probability distribution and be acquainted with some leading examples of both discrete and continuous probability distributions;
7. have a clear idea of what is meant by a sampling distribution;
8. be familiar with the basics of estimation and hypothesis testing, with particular reference to applications involving the population mean and the population variance.

Prerequisites and Preclusions

The prerequisites for this course are ECON 1401 (with a grade of C- or higher) and ECON 1402, (or equivalent department-approved MATH course pair). NOTE: ECON 2210 may be taken concurrently with ECON 1402. Students who believe that they have taken a similar background course or courses from another university must provide appropriate documentation to the Department of Economics Undergraduate Administrator, Sean Hall seanhall3@cunet.carleton.ca

Please note that a grade of C- or higher in ECON 2210 is required to qualify for ECON 2900, ECON 3210, and ECON 3900, and that a grade of C+ or higher is required to qualify for ECON 2708, ECON 4002, and ECON 4706. DEF(erred final grade) status at the end of this course precludes (continued) registration in any other course for which the former is a prerequisite.

Also, please note that this course precludes additional credit for BIT 2000, BIT 2009, DATA 1517, ENST 2006, GEOG 2006, STAT 2507, STAT 2601, STAT 2606, and STAT 3502.

Required Textbook

Groebner, David F., Shannon, Patrick W., and Fry, Phillip C. (2024), Business Statistics: A Decision-Making Approach (11th Edition), Pearson.

Please note that one fairly inexpensive option for obtaining access to an electronic version of the textbook is to purchase it directly from the publisher at: https://www.pearson.com/enca/subject-catalog/p/business-statistics-a-decision-makingapproach/P200000009783/9780137835393

The current price for 6-month access to this electronic version of the textbook through this source is S67.99 + tax. NOTE: This price is subject to change.

The textbook can also be obtained through the Campus Store. For details, see https://carleton.bookware3000.ca

Course Content

I **Descriptive Statistics and Basic Probability**
Chapter 1: The Where, Why, and How of Data Collection
Chapter 2: Graphs, Charts, and Tables—Describing Your Data
Chapter 3: Describing Data Using Numerical Measures
Chapter 4: Using Probability and Probability Distributions

II **Important Probability Distributions**
Chapter 5: Discrete Probability Distributions (except for the discussion of the Hypergeometric Distribution in Section 5.3)
Chapter 6: Introduction to Continuous Probability Distributions

III **Statistical Inference**
Chapter 7: Introduction to Sampling Distributions - Sections 7.1 and 7.2
Chapter 8: Estimating Single Population Parameters - Sections 8.1 and 8.2
Chapter 9: Introduction to Hypothesis Testing - Sections 9.1 and 9.3
Chapter 10: Estimation and Hypothesis Testing for Two Population Parameters - Sections 10.1, 10.2, and 10.3
Chapter 11: Hypothesis Testing for One and Two Population Variances - Section 11.1

Brightspace

Brightspace and the Carleton email system will be used extensively as a means of communication with students. Therefore, students are strongly advised to access Brightspace and to check their Carleton email at regular intervals in order to check for new information. To access Brightspace and the Carleton email system, students require a MyCarletonOne account. For questions about MyCarletonOne accounts, students should access carleton.ca/its/get-started/ (and then click on either New Students or New Grad Students, as appropriate) or contact the ITS Service Desk.

Communication

For most, if not all, course-related communication, please use the **discussion forum** on Brightspace. This platform is designed to help you receive timely and efficient support from your classmates, the TA, and the instructor. Rather than emailing questions to the teaching staff, you are expected to post your questions on the forum.

Questions may be posted anonymously if you choose. If your question is of general interest (e.g., related to assignments, course material, or deadlines), please post it on the forum so that all students can benefit from the response. Using the forum also helps avoid repeated responses to similar questions via email.

Before posting a new question, please review existing posts to see whether your question has already been answered. When creating a post, use a clear and descriptive subject line (e.g., "Question about Problem 2(b) in Assignment 1" rather than "I have a question").

Students are encouraged to contribute by answering questions on the forum. Do not hesitate to participate—if a response is incomplete or incorrect, the TA or instructor will provide clarification without any negative consequences.

Evaluation Policy

Assignments

There are six assignments in total, each worth 5 points. Assignments will be posted on Brightspace and must be submitted through Brightspace according to the schedule provided below. The assign-

Assignment	Posted	Due
# 1	July 5	July 11
# 2	July 12	July 18
# 3	July 19	July 25
# 4	July 26	August 1
# 5	August 2	August 8
# 6	August 9	August 15

ments are not intended to be overly challenging. Instead, they consist of straightforward problems that apply the concepts covered in the lectures, such as key statistical methods and important functions. The purpose of these assignments is to help students develop a solid understanding of fundamental terminology and essential statistical techniques, which are important for success in more advanced courses in later years.

Final Exam

The final exam will be in-person and comprehensive and will be scheduled by Examination Services during the regular final examination period (August 17-24). Note that students should not make travel plans during this final examination period as this would not be a valid reason for missing a final exam.

Attendance (Lectures and Tutorials)

With two lectures scheduled each week over a six-week period, the course will move at a relatively fast pace. It can be challenging to catch up if you fall behind. The simplest and most effective way to stay on track is to attend each lecture and tutorial regularly.

To encourage consistent attendance, 1 point will be awarded for attending each lecture and 0.5 point for attending each tutorial. By attending all scheduled sessions, you can earn up to 3 points per week. Over the six-week term, this amounts to a total of 18 points, so regular attendance can make a meaningful contribution to your final grade.

Preview Quiz Bonus

Lecture notes will be posted on Brightspace three days before each scheduled class. Students are encouraged to preview the materials in advance. To help ensure that the preview has been completed, a short preview quiz will be available on Brightspace one day before the lecture and will close immediately before the class begins.

There are 12 lectures in total, and therefore 12 preview quizzes will be available. Bonus points will be awarded according to the number of preview quizzes completed, as shown below.

Number of Preview Quizzes Taken	Bonus Points
5 or more	4 pts
8 or more	7 pts
12	10 pts

For example, if a student completes only 3 quizzes, no bonus points will be awarded. If 9 quizzes are completed, the student will receive 7 bonus points. To receive the full 10 bonus points, all 12 quizzes must be completed.

You may attempt each quiz multiple times, and only the highest score will be recorded. For an attempt to count, you must achieve a score of at least 90%. These quizzes are designed to be simple and are intended to encourage the habit of previewing course materials before attending class. When you come to class prepared, it will be much easier to follow and understand the lecture.

Grading Scheme

The final percentage grade for this course will be calculated as follows:

Assignments	30% (6 assignments, each worth 5%)
Final Examination	52%
Attendance	18%
Bonus	up to 10%

The total percentage grade cannot exceed 100%. The final percentage grade will then be converted into a letter grade according to the standard equivalences outlined in Section 5.4 of the Academic Regulations of the University in the 2025–2026 Undergraduate Calendar.

If one or more components of the term work are not completed, the weight of the incomplete component(s) will not be transferred to the final examination unless a documented and compelling reason is provided.

If you require academic consideration for one or more components of the term work, you should contact the instructor as soon as possible. The instructor may require you to complete the appropriate Academic Consideration for Coursework Form in accordance with the Academic Consideration Policy.

Finally, please note that: "Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by an instructor may be subject to revision. No grades are final until they have been approved by the Dean."

Deferred Finals

Students who do not write the final examination because of illness or other circumstances beyond their control may apply for to write a deferred final examination by contacting the Registrar's Office no later than three working days after the original final examination was scheduled. In the event that a student writes a deferred examination, the deferred examination will carry the same weight as the final examination in determining the course grade. Any deferred examination will not be identical to the original final examination.

Deferred finals (which must be applied for at the RO) are only available if the student is in good standing in the course.

For further details, see Section 4.3 of the Academic Regulations of the University in the 2025-2026 Undergraduate Calendar.

Plagiarism, Resources and Mental Health, Academic Accommodations

Please ensure that you are familiar with and comply with the Academic Integrity Policy. Please note that you are responsible for reading and being aware of the information relating to Carleton University and other resources for mental health and academic support, as well as academic accommodations, found here.