

CARLETON UNIVERSITY
Department of Economics

ECON 2210 B Introductory Statistics for Economics

Course Outline

Instructor: Simon Power
Office: LA B853
Phone: (613) 520-2600 x3764
Email: simon.power@carleton.ca
Office Hours: TBA
TA: TBA

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Welcome to Introductory Statistics for Economics!

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Prerequisites

The prerequisites for this course are ECON 1401/MATH 1401 (with a grade of C- or higher) and ECON 1402/MATH 1402, or equivalent department-approved MATH course pair. NOTE: ECON 2210 may be taken concurrently with ECON 1402/Math 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, Renée Lortie renee.lortie@carleton.ca

Please note that a grade of C- or higher in ECON 2210 is required to qualify for ECON 2220. Also, please note that a grade of C- or higher in ECON 2210 is required to qualify for ECON 3900 and ECON 3920, 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.

Introduction

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.

ECON 2210 precludes additional credit for BIT 2000, BIT 2100 (no longer offered), BIT 2300 (no longer offered), ECON 2200 (no longer offered), ECON 2201 (no longer offered), STAT 2507, STAT 2606, and STAT 3502.

Organization

The class will be completely online. Synchronous 80-minute Zoom lectures will be held at 10:05 a.m. on Tuesdays and Thursdays. (These lectures will be recorded and later available on Brightspace.) In addition, a synchronous 80-minute tutorial session will be held at 1:05 p.m. on Tuesdays. (These tutorials will be recorded and later available on Brightspace.) The tutorial sessions will be used for additional coverage of important course material, together with assignment-related activities. NOTE: Students are not required to have webcams.

There will be four (4) required assignments and a final exam. The final exam will be scheduled by Examination Services during the regular final examinations period (December 11-23).

Please note that 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 <https://carleton.ca/its/contact/>

Covid-19 Pandemic Measures

Although this class will be completely online, please be aware of and abide by the following general Carleton Covid-19 pandemic measures:

All members of the Carleton community are required to follow COVID-19 prevention measures and all mandatory public health requirements (e.g. wearing a mask, physical distancing, hand hygiene, respiratory and cough etiquette) and **mandatory self-screening** prior to coming to campus daily.

If you feel ill or exhibit COVID-19 symptoms while on campus or in class, please leave campus immediately, self-isolate, and complete the mandatory **symptom reporting tool**. For purposes of contact tracing, attendance will be taken in all classes and labs. Participants can check in using posted QR codes through the cuScreen platform where provided. Students who do not have a smartphone will be required to complete a paper process as indicated on the **COVID-19 website**.

All members of the Carleton community are required to follow guidelines regarding safe movement and seating on campus (e.g. directional arrows, designated entrances and exits, designated seats that maintain physical distancing). In order to avoid congestion, allow all previous occupants to fully vacate a classroom before entering. No food or drinks are permitted in any classrooms or labs.

For the most recent information about Carleton's COVID-19 response and required measures, please see the [University's COVID-19 webpage](#) and review the [Frequently Asked Questions \(FAQs\)](#). Should you have additional questions after reviewing, please contact covidinfo@carleton.ca

Please note that failure to comply with university policies and mandatory public health requirements, and endangering the safety of others are considered misconduct under the [Student Rights and Responsibilities Policy](#). Failure to comply with Carleton's COVID-19 procedures may lead to supplementary action involving Campus Safety and/or Student Affairs.

Academic Integrity

Please ensure that you are familiar with and comply with the Carleton University Academic Integrity Policy:

<https://carleton.ca/secretariat/wp-content/uploads/Academic-Integrity-Policy-2021.pdf>

Assignments

Assignments will be posted on Brightspace and will be submitted through Brightspace according to the following schedule:

	<u>Posted</u>	<u>Due</u>
Assignment 1	September 28	October 12
Assignment 2	October 19	November 9
Assignment 3	November 9	November 23
Assignment 4	November 23	December 7

Students may wish to work together on assignment material, BUT each student MUST complete their own assignments INDEPENDENTLY. For further information on recognizing and avoiding plagiarism, see "Pammett on Plagiarism and Paraphrasing" at carleton.ca/economics/course/writing-preliminaries

Evaluation

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

Assignments	40% (4 assignments each worth 10%)
Final Examination	60%

This % grade will then be converted into the alphabetical grade system using the standard equivalences, as outlined in Section 5.4 of the Academic Regulations of the University in the 2021-2022 Undergraduate Calendar.

In the event that one or more assignments are not submitted, the weight of the missed assignment(s) will not be transferred to the final examination without a documented and compelling reason. In place of a doctor's note or medical certificate, students are advised to complete the self-declaration form, which is available on the Registrar's Office website <https://carleton.ca/registrar/wp-content/uploads/self-declaration.pdf> , in order to request academic accommodation.

Students who do not write the final examination because of illness or other circumstances beyond their control may apply to write a deferred final examination. In order to write a deferred final examination, students must contact the Registrar's Office. (For further details, see Section 4.3 of the Academic Regulations of the University in the 2021-2022 Undergraduate Calendar.) 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. Needless to say, any deferred examination will not be identical to the original final examination.

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."

Requests for Academic Accommodation

Pregnancy obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, contact your instructor as soon as

possible to ensure accommodation arrangements are made. For more details, visit the Paul Menton Centre website carleton.ca/pmc

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. See also <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

Academic Assistance

Students should be aware of and feel free to take advantage of the various services offered through the Centre for Student Academic Support (CSAS) <https://carleton.ca/csas/>

Textbook

The required textbook for this course is:

Groebner, David F., Shannon, Patrick W., and Fry, Phillip C. (2018), Business Statistics: A Decision-Making Approach (10th Edition), Pearson.

This textbook is available in both hardcopy and etext, and it can be purchased through the Carleton University bookstore <https://www.bkstr.com/carletonstore/shop/textbooks-and-course-materials> or otherwise.

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 Inferences Based on Single Samples

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

IF YOU HAVE PROBLEMS WITH THIS COURSE, PLEASE LET ME KNOW!

IF I DON'T KNOW THAT YOU HAVE PROBLEMS, I CAN'T FIX THEM!