



ECON 2210G

Introductory Statistics for Economics

2022 Winter

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| Instructor: Jiankang Zhang | Classes: |
| Office: D887 Loeb Building | Wednesdays 10:05-11:25 (Lecture, Online) |
| Phone: 613-520-2600 ext. 3774 | Fridays 10:05-11:25 (Lecture, Online) |
| jiankangzhang@cunet.carleton.ca | Fridays 13:05-14:25 (Tutorial, Online) |
| TA: TBA | Office Hours: 16:10-17:40 (Thursdays or by appointment) |

Welcome to ECON 2210: Introductory Statistics for Economics.

Due to the Covid-19 pandemic, the course will be offered online this term. More specifically, lectures will be recorded live on BigBlueButton. Students are expected to attend the live lectures. Detailed lecture notes in pdf will be uploaded to Brightspace after lectures. BigBlueButton will be used to host live tutorials covering course material, test preparation and assignment questions. Students are encouraged to ask questions during the live lectures via the chat box on BigBlueButton. To have a better effect for using BBB, students are strongly advised to use earset, though webcam is not required.

Brightspace will be used for the following: All course announcements and emails; assignments and tutorials; links to the course slides; and online submission of the Assignments, Midterm Exams and Final Exam.

Though the detailed lecture notes will be uploaded to Brightspace, the textbook is still very useful since the course is structured to follow its chapters. Also, the assignments, if any, will be based on it. Finally, more examples and more practice problems are provided by the book. The following is the link to the CU bookstore website <https://www.bkstr.com/carletonstore/shop/textbooks-and-course-materials>. The bookstore is offering free shipping on all print copies of textbooks.

The [Centre for Student Academic Support \(CSAS\)](https://carleton.ca/csas/) is a centralized collection of learning support services designed to help students achieve their goals and improve their learning. CSAS offers academic assistance with [online student success](#), course content, academic writing and skills development. For more details, visit the [CSAS website](https://carleton.ca/csas/) (<https://carleton.ca/csas/>).

Objectives: This course is an introduction to 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.

Prerequisites: ECON 1401 (or equivalent) with a grade of C- or higher; ECON 1402 (or equivalent), which may be taken concurrently with ECON 2210. Students who believe they have taken a similar background course or courses from another university should provide appropriate documentation to the Department of Economics Undergraduate Administrator, Renee Lortie: renee.lortie@carleton.ca to check that credit may be given for all courses.

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.

Qualification requirements for higher level courses: A grade of C- or higher is required to qualify for ECON 2220; a grade of C+ or higher is required to qualify for ECON 3900, 3920, 4002, and 4706.

The course consists of lectures three hours a week, tutorials one and a half hours a week.

Textbook

The required textbook for the course is:

Business Statistics: A Decision-Making Approach by David F. Groebner, Patrick W. Shannon, Phillip C. Fry
10th edition, Pearson

Course Outline

- Topic I: Introduction and Descriptive Statistics
 - 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
- Topic II: Basic Probability and Important Distributions
 - Chapter 4: Introduction to Probability
 - Chapter 5: Discrete Probability Distributions (except for the discussion of the Hypergeometric Distribution in Section 5.3)
 - Chapter 6: Introduction to Continuous Probability Distributions
- Topic III: Statistical Inferences Based on Samples
 - Chapter 7: Introduction to Sampling Distributions
 - Sections 7.1 and 7.2 only
 - Chapter 8: Estimating Single Population Parameters
 - Sections 8.1 and 8.2 only
 - Chapter 9: Introduction to Hypothesis Testing
 - Sections 9.1 and 9.3 only
 - Chapter 10: Estimation and Hypothesis Testing for Two Population Parameters
 - Sections 10.1, 10.2, and 10.3 only
 - Chapter 11: Hypothesis Testing for One and Two Population Variances
 - Section 11.1 only (and only this if time permits)

Data Analysis and Microsoft Excel

The students are assumed to be able to use and access to Excel at home, school, or work. Some problems related the data files included on the web page allow the students to have the opportunity to apply chapter techniques to large blocks of data and use a computer to solve the problems.

Grading Scheme

- The final grade will consist of the following elements weighted as shown:
 1. Three in-class midterm exams 15%, 20%, 25%, respectively
 2. Final exam 40%
- The first midterm examination will be held after finishing Chapter 3.
The second midterm examination will be held after finishing Chapter 6.
The third midterm examination will be held after finishing Chapter 8.
- The dates for the midterms will be announced in advance via Brightspace.
- There will be no deferred mid-term exams. If you miss a midterm exam due to an emergency or illness and provide proper documentation (Please give me the original copy in person!), the assigned weight will be added to the final exam. Otherwise you will receive zero marks for it.
- A maximum of one missed midterm is permitted. As a result, a maximum weight of 65% will be given to the final examination.
 - The final examination will be a three-hour examination, scheduled by the Scheduling Office.
 - 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.
 - All midterms are **closed** book examinations and students are **not allowed** to bring in any materials.
 - For the final examination, students are **allowed** to bring in one 8½ × 11 inch page of paper with material of their own choosing written on one side. With the exception of the binomial distribution, tables will be provided for all the examinations.
 - The final exam will be **cumulative** and cover the **entirety** of the course material.

Satisfactory Performance Criteria: Students must fulfil all of the preceding course requirements in order to achieve a passing grade (D- or higher). Failure to write the final examination when the student has achieved satisfactory performance during the term will result in a grade of 'F' until an appeal to write the deferred final exam in May 2021, if granted by the Registrar's Office. A change of grade will be submitted when the deferred final exam has been written and the marks are available. See Academic Regulation 2.3 for the official meanings of the grades, and note that it stipulates that no course grades are final until approved by the Faculty Dean. Application to write a deferred final examination must be made at the Registrar's Office in writing no later than three working days after the original final examination was scheduled.

Tutorial Groups: Weekly tutorials will be conducted. The TA will show the students the applications of concepts and theories presented in classes step by step by using some examples.

Practice Problems: Students are encouraged to work through as many textbook problems as possible, since these are the best way to learn the course and prepare for the exams as well. Moreover, I will provide four sets of practice problems.

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 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 <http://carleton.ca/ccs/get-started/> (and then click on either New Students or New Grad Students, as appropriate) or contact the ITS Service Desk (4th Floor, MacOdrum Library, telephone: 613-520-3700).

Plagiarism: Please be aware that plagiarism is serious offense at Carleton and should be recognized and avoided. For further information on how to do so, please see “Pammett on Plagiarism and Paraphrasing” at www.carleton.ca/economics/courses/writing-preliminaries.

Requests for Academic Accommodation: You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

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/wpcontent/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,

meet with your instructor as soon as possible to ensure accommodation arrangements are made. [carleton.ca/pmc](https://www.carleton.ca/pmc).

**If you have any problems and questions, please do not hesitate
to ask me for help.**