

**Carleton University**  
**Department of Economics**  
**ECON 2210 G**  
**Introductory Statistics for Economics**  
**2020 WINTER**  
**Instructor: Valerie Rochester**

Classes: Tuesdays & Thursdays, 10:05– 11:25

Tutorials: Thursdays, 11:35– 12:55

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Phone: 613-520-2600 ext. 3769 (no voice mail)

Office Hours: Tuesday 11:45 -12:45

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TA: TBA

### **Calendar Description**

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.

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.

Prerequisite(s): ECON 1401 (or equivalent) with a grade of C- or higher; ECON 1402 (or equivalent), which may be taken concurrently with ECON 2210.

\*A grade of C- or higher is required to qualify for ECON 2220 and 3706; a grade of C+ or higher is required to qualify for ECON 3900, 3920, 4002, and 4706.

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

### **Course Outline**

#### **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 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

## 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 in the final assignment will allow the students to have the opportunity to apply chapter techniques to and use a computer to solve the problems.

**All relevant materials such as notes, slides, practice assignments, and solutions will be posted to cuLearn. "All materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author."**

### NOTE:

For verification and security purposes, I will not reply to emails originating from non-Carleton e-mail accounts, and which are not signed with a student's name and student number. Assignments and changes to schedules will be made available on cuLearn only. Please ensure that you have a Carleton email account.

### Tutorials

Tutorials will be held before every class each week according to the University timetable beginning on January 9. During these tutorials additional examples and problems related to the current topic will be presented and solved. In addition any questions on the material may be raised.

### Course Evaluation

Two , 80-minute in class tests worth 20% each	40%
One hand-in assignment	15%
Final Examination – 3 hours (to be scheduled by the University)	45%
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	100%

### **\*\*\*\*IMPORTANT EVALUATION CRITERION PLEASE READ CAREFULLY\*\*\*\***

Tests will be held in class and will last 80 minutes. **There are no deferred tests.** For students who can document a compelling reason for missing a test within one week of the missed test, the assigned weight of 20% will be added to the weight of the final exam; otherwise a mark of zero is assigned. Only ONE test will be treated in this way as the maximum weight of the final exam will be 65%.

A maximum weight of 65% will be given to the final examination in the event that a test is missed and valid documentation is provided.

Failure to submit the final assignment on time will result in a mark of zero. **NO** late assignments will be accepted. The weight of the assignment **cannot** be shifted to the final exam.

Students must fulfil all of the preceding course requirements in order to achieve a passing grade (D- or higher).

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### **Two Tests (Total 40%)**

**The following references are expected to hold, however if for any reason a topic is not completed prior to the test, you will be informed through cuLearn of the change and you will be responsible ONLY for what has been covered in class.**

**TEST 1: Thursday, February 13 – Chapters 1-6**

**TEST 2: Thursday, March 19 – Chapters 7-9**

Practice questions and solutions are posted on cuLearn before each test, and reflect the type of questions you can expect. Study groups are useful to discuss solutions.

**Assignment (15%) – due in the final class by 11:25 Thursday, April 2, 2020, OR EARLIER**

**\*\*NO LATE ASSIGNMENTS WILL BE ACCEPTED\*\***

The assignment will be posted on cuLearn, will cover all the course material. The assignment may be submitted to me before the final class. Failure to submit this assignment results in an F in the course as described above. Please keep a copy of your assignment, as your graded assignment will not be available for pick-up prior to the final examination. Students may wish to work together on assignments, but each student must submit his/her assignment independently.

### **Final Examination (45%)**

The final exam covers the entirety of the course material – Chapters 1-11, lasts 3 hours, and will be scheduled by the University to take place during the official final examination period. Failure to write the final exam will result in a grade 'F' until an appeal to write the deferred final exam is granted. A change of grade will be submitted when the deferred final exam has been written and the marks are available. In order to write a deferred final exam, students must contact the Registrar's Office.

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### **Course Standing**

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean. Application to write a deferred final examination must be made at the Registrar's Office

### **Plagiarism**

Please be aware that plagiarism is a serious offense and one that should be recognized and avoided. Please see "Pammett on Plagiarism and Paraphrasing" at [www.carleton.ca/economics/courses/writing-preliminaries](http://www.carleton.ca/economics/courses/writing-preliminaries).

### **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](#).

**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](#).

**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](mailto: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. For more details, visit the [Paul Menton Centre website](#).

You can visit the Department of Equity Services website to view the policies and to obtain more detailed information on academic accommodation at <http://www.carleton.ca/equity/>