Carleton University
Department of Economics
ECON 2201 A
Statistical Methods in Economics and Business I
2017 SUMMER
Instructor: Valerie Rochester

Classes: Tuesdays & Thursdays, 6:05 – 8:55 PM
Tutorials: Tuesdays & Thursdays, 4:35 – 5:55 PM

Office: B-842 Loeb
Office Hours: by appointment
E-mail: valerie.rochester@carleton.ca
Phone: 613-520-2600 ext. 3769 (no voice mail)
Please use the cuLearn e-mail facility for all course-related communication.
TA: TBA

Calendar Description
An introduction to statistical inference. Topics covered include descriptive statistics, probability theory, sampling distributions, estimation and hypothesis testing with a single population. Precludes additional credit for BIT 2000, BIT 2100, BIT 2300, ECON 2200 (no longer offered), GEOG 2006, PSCI 2702, PSYC 2002, STAT 2507, STAT 2606, and STAT 3502.
Prerequisite(s): ECON 1401 (or equivalent) with a grade of C- or higher; and ECON 1402 (or equivalent), which may be taken concurrently with ECON 2201.

*A grade of C- or higher is required to qualify for ECON 2202; a grade of C+ or higher is required to qualify for ECON 4002 and ECON 4706.


Course Outline
I: Descriptive Statistics and Basic Probability
   Topic 1: The Where, Why, and How of Data Collection (Textbook Chapter 1)
   Topic 2: Describing Data Using Numerical Measures (Textbook Chapter 2)
   Topic 3: Graphs, Charts, and Tables - Describing Your Data (Textbook Chapter 3)
   Topic 4: Using Probability and Probability Distributions (Textbook Chapter 4)

II: Important Probability Distributions
   Topic 5: Discrete Probability Distributions (Textbook Chapter 5)
   Topic 6: Continuous Probability Distributions (Textbook Chapter 6)

III: Statistical Inferences Based on Single Samples
   Topic 7: Introduction to Sampling Distributions, estimation, and hypothesis testing of single population means (Textbook Sections from Chapters 7, 8, 9)
   Topic 8: Introduction to Sampling Distributions, estimation, and hypothesis testing of single population proportions and Type II error (Textbook Sections from Chapters 7, 8, 9)

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(s)."
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 prior to each class beginning on May 4. 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

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two, 80-minute tests worth 20% each</td>
<td>40%</td>
</tr>
<tr>
<td>One hand-in assignment</td>
<td>15%</td>
</tr>
<tr>
<td>Final Examination – 3 hours (to be scheduled by the University)</td>
<td>45%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

****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 receive a passing grade on the average of the tests, or failure to submit the final assignment will result in a grade of FND (“Failure with No Deferred final examination allowed”). Failure to write the final examination when the student has achieved satisfactory performance during the term will result in a grade of ABS (“ABSent from a required final examination”). See Academic Regulation 2.3 for the official meanings of these grades, and note that it stipulates that no course grades are final until approved by the Faculty Dean. Note also that course grades may be scaled upwards or downwards in a rank-preserving manner to better fit the relevant departmental distributional norm. Application to write a deferred final examination must be made at the Registrar’s Office.

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

The final date to register in this course is May 8, 2017. The final date to withdraw from this course with a fee adjustment is May 19, 2017. The final date to withdraw from this course without academic penalty is June 13, 2017.
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: Tuesday, May 16 – Topics 1–4
TEST 2: Thursday June 1 – Topics 5, 6 and 7

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 by 8:00 PM Tuesday, June 13, 2017 OR EARLIER

**NO LATE ASSIGNMENTS WILL BE ACCEPTED**

The assignment will be posted on cuLearn, will cover all the course material, and is due in class on Tuesday, June 13, 2017 by 8:00 PM or earlier. The assignment may be submitted to me before the final class. Failure to submit this assignment results in an FND in the course. Please keep a copy of your assignment, as your graded assignment may 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 – Topics 1–8 (Textbook Chapters 1-9), lasts 3 hours, and will be scheduled by the University to take place during the official final examination period. Failure to write the final examination results in a grade of ABS (provided you have met the conditions described in the EVALUATION CRITERION above). In order to write a deferred final exam, students must contact the Registrar’s Office as soon as possible after the missed exam.

Course Standing

Standing in a course is determined by the course instructor subject to the approval of the Department Chair and the Faculty Dean. This means that course grades may be scaled upwards or downwards in a rank-preserving manner to better fit the relevant departmental distributional norm. No grades are final until they have been approved by the Dean.

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.

Academic Accommodation

For Students with Disabilities:

Students with disabilities requiring academic accommodations are encouraged to contact a coordinator at the Paul Menton Centre for Students with Disabilities (ext. 6608) to complete the necessary letters of accommodation. After registering with the Centre, please set up an appointment with me to discuss your needs at least two weeks prior to a test or in-class mid-term exam. This is necessary in order to ensure sufficient time to make the necessary arrangements.
For Religious Observance:

Students requesting academic accommodation on the basis of religious observance should make a formal, written request to their instructors for alternate dates and/or means of satisfying academic requirements. Such requests should be made during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist, but no later than two weeks before the compulsory academic event. Accommodation is to be worked out directly and on an individual basis between the student and the instructor(s) involved. Instructors will make accommodations in a way that avoids academic disadvantage to the student.

Students who have questions or want to confirm accommodation eligibility of a religious event or practice may refer to the Equity Services website for a list of holy days and Carleton’s Academic Accommodation policies, or may contact an Equity Services Advisor in the Equity Services Department for assistance.

For Pregnancy:

Pregnant students requiring academic accommodations are encouraged to contact an Equity Advisor in Equity Services to complete a letter of accommodation. The student must then make an appointment to discuss her needs with the instructor at least two weeks prior to the first academic event in which it is anticipated the accommodation will be required.