Welcome to Introductory Statistics for Economics.

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 must provide appropriate documentation to the Department of Economics Undergraduate Administrator, Amanda Wright.

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.

*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.

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:

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.

● 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(ferred 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.

**Tutorials**

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.

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

**Course Requirements**: Students must fulfill all the course requirements in order to achieve a passing grade (D- or higher). 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.

**Accommodation**: Students with disabilities requiring academic accommodations in this course must contact a coordinator at the Paul Menton Centre for Students with Disabilities to complete the necessary *Letters of Accommodation*. After registering with the PMC, make an appointment to meet and discuss your needs with me in order to make the necessary arrangements as early in the term as possible.

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<tr>
<th>For Religious Obligations</th>
<th>To be worked out on individual basis with instructor. Consult Equity Services Website or an Equity Advisor (ext. 5622) for policy and list of Holy Days (<a href="http://www.carleton.ca/equity">www.carleton.ca/equity</a>)</th>
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<tr>
<td>For Pregnancy</td>
<td>Contact Equity Services (ext. 5622) to obtain <em>letters of accommodations</em></td>
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If you have any problems and questions, please do not hesitate to ask me for help.