

ECO 3150
Probability and Statistics for Economists

Fall 2007

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Office Hours: Monday 14:00-15:00
Tuesday 10:00-11:00
Thursday 9:00-10:00

Probability theory and statistics are omnipresent in economics related careers. On one side, as uncertainty surrounds every-day life decision making, economic modeling has to rely on probability theory and statistics in order to better explain agents' behaviour. On the other side, practitioners heavily rely on statistics to summarize information, to test economic theories, to assess the impact of particular policies, and to do forecasting.

This course introduces the student to basic concepts in probability theory and statistics used in economic analysis. Lectures will emphasize economic applications, but also every-day life examples to illustrate, and to get a better grasp of these concepts. The main objective of this course is to prepare students to the study of econometrics (ECO3151), and to advanced topics in economics.

Textbook: Newbold, P., W. L. Carlson, and B. M. Thorne (2002): *Statistics for Business and Economics*, 5th edition, Prentice-Hall, New Jersey, 900 pages.

A custom version of the book can be purchased at the [Agora Bookstore and Internet Café](#). The address is 145, Besserer St. The custom edition only includes chapters that will be covered in class, making it much cheaper than the complete version.

Marking Scheme and Assessments:

Assessment	Fraction of Final Mark
3 Assignments (5 percent each)	15 percent
Midterm 1 (October 1 st)	20 percent
Midterm 2 (November 5 th)	20 percent
Final Exam	45 percent

Due dates for the assignments are September 27th, October 25th, and November 26th. Assignments must be handed in before class starts. No assignments will be accepted after class has started. Only the final exam will be cumulative. Midterms will be held in class on October 4th and November 5th. If you miss a midterm or an assignment due date, you must provide a medical certificate

validated by the Health Services within five business days after the midterm/due date. Students who missed a midterm will have to take a make-up test given that they satisfied the conditions mentioned above. If you miss an assignment due date, marks normally assigned to this assignment will be then shifted to the other assignments (e.g. if you miss one assignment, each of the other two assignments will be worth 7.5 percent of the final mark).

Course Web Site: There is a Blackboard course web site for this course. You can access this web site on: <http://www.tlss.uottawa.ca/>. Log into the Virtual Campus using your Infoweb username and password. I will post the assignments on this site. You will also be able to check your grades, send emails to your classmates and myself, and ask questions in the discussion forum. I will try to check the course website at least once a day (except for Saturdays and Sundays).

Software: All you need for this course is a spreadsheet application like Excel, Lotus 1-2-3, Quattro, or Calc. I assume that you have a basic knowledge in one of these applications. Students will be supplied with most Excel commands they need to know for the assignments.

Course Outline

- 1) Introduction to Probability Theory and Statistics
- 2) Descriptive Statistics
- 3) Probability Theory
- 4) Discrete Random Variables and Probability Distributions
- 5) Continuous Random Variables and Probability Distributions
- 6) Statistical Inference

Each of these topics corresponds to one or more chapters from the textbook. I will announce in class and on the course web site the exact readings required for the course.

Academic Fraud: Academic fraud is not tolerated at the University of Ottawa. A student who has committed, or has tried to commit academic fraud is subject to serious sanctions. Students should visit the following webpage for a definition of academic fraud and related applicable sanctions:

http://www.uottawa.ca/academic/info/regist/crs/0305/home_5_ENG.htm