

Economics 3818-030  
Office: Room 108

Professor Donald Waldman  
waldman@colorado.edu

### Course Information

Welcome to Econ 3818. This is a first course in probability and statistics, with an introduction to econometrics. Applications will be taken from topics in economics, and other areas. Both simulated and real data will be used in these examples.

Please read this carefully--there is a lot of information here to help you navigate this course. In particular, the final grade for this course depends on weekly quizzes and problem sets that must be completed in a timely manner.

#### Instructor

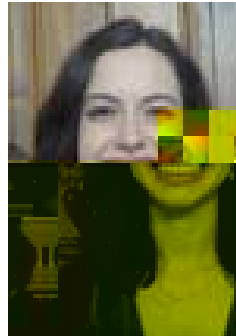
Donald M. Waldman  
Professor



waldman@colorado.edu  
Tuesday, 2:00 - 3:00,  
Wednesday, 11:00 - 12:00,  
and by appointment

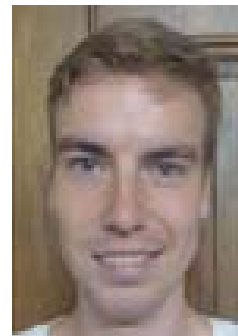
#### Teaching Assistants

Lauren Schechter  
Ph.D. Student



Office: Econ 108  
Office hours:

Danny Kurban  
Ph. D. Student



Office: Econ 306  
Office hours:

#### Instructor Short Biographies

Donald Waldman is a professor in the Economics Department. Both his teaching and research concentrate on statistical methods (econometrics) and applied microeconomics (environmental economics, nonmarket valuation, labor economics, industrial organization). He has taught this course many times.

Lauren and Danny are advanced graduate students in the Economics Department. Both have completed the Ph. D. level course requirement in statistics in the Economics Department.

## Prerequisites

The most important background to bring into this course is ability to think abstractly. In addition, students will find it easier if they have a good understanding of algebra at the level of high school Algebra II; differential and integral calculus play a smaller role in this course, but they will be used. Calculus will be reviewed during the course.

The course prerequisites are *one* of the following:

ECON 1078 and 1088;  
MATH 1300;  
MATH 1310;  
MATH 1081;  
MATH 1080, 1090, and 1100;  
APPM 1350.

If you have not taken one of these classes, you cannot take Econ 3818 without a waiver: please see an Economics Department advisor.

### In the first week of class:

- Please read Caniglia (the course textbook), Chapter 2.
- If you are not already comfortable with Microsoft Excel, try it out. The University has a site license to the MS Office package, so you can get it for free. It is often included in Windows PCs and some Macs, and it is available on all computers in the CU computer labs. If you want help installing it on your personal computer, go to bugbusters or see

<http://www.colorado.edu/oit/services/messaging-collaboration/microsoft-office-365/help/proplus>

## Course Objectives

- Statistics is the study of data (resulting from either the physical or social world) that is subject to randomness. The # t er Ç vives ro \$

### **Lectures, Recitation, Work Load**

There will be two lectures weekly, meeting Tuesday and Thursday from 12:30 to 1:45 p.m. in GOLD A2B70 (Gold Biosciences) room A2B70.

In lecture I will cover most (but not all) of the material that is in the textbook, but in

- Tree diagrams
- Independence and mutual exclusivity
- Bayes' law
- Urn problems
- Bayes' Law for partitions



material of this course, the quiz must be completed by **the start of the next Tuesday's class**, so by 12:30 pm.

- The weekly problem sets will be available on Thursday as well, and are due in class the following **Thursday by 12:30 pm**.
- The three, in-class midterm exams are scheduled for

Midterm I: **Thursday, September 21**

Midterm II: **Thursday, October 19**

Midterm III: **Thursday, November 16.**

The midterms will be composed of questions from the text, quizzes and problem sets, as well as additional questions.

- The final exam is cumulative, to be given on **Monday, December 18, 4:30 to 7:00 p.m.**

Additional notes on the problem sets:

- You must answer all exercises, but not all will be graded.
- On some problem sets, there will be an Extra Credit problem or problems. These are truly extra credit: they can only raise your grade. To be clear, at the end of the term I will calculate grades for every student without regard to the extra credit problems. Then I will return to my assessment spreadsheet and raise the grades of students who have tried and at least sometimes successfully attempted some or all of the extra credit problems.

### **Problem set and quiz deadlines; grading; cell phone and laptop policy**

- Like many courses but unlike, perhaps, a “topics-in something” course, this course is sequential in nature. That is, Thursday's material will likely be unintelligible unless Tuesday's material has been mastered. Therefore, to make understanding material easier, answers to quizzes and problem sets will be made available shortly after their due date and time. **This means strict deadlines for completion of quizzes and problem sets, no exceptions.**
- The lowest problem set score and the lowest quiz score will be dropped. Given this policy, the fact that solutions will be posted immediately after the assignment is due, and the importance of keeping up on the material in this course, **no late problem sets or quizzes will be accepted.**

Successful students in this course have generally followed this study/assignment regime:

- review your notes sometime after lecture (but not more than 24 hours after);
- work first on the problem set, again shortly after Thursday's lecture, take the online, timed quiz by Tuesday's lecture; finish the problem set by Thursday's lecture.

Note: you may work together on problem sets, I encourage this. However, each student must hand in the written problem set solutions.

---

*Notice for students with disabilities:*

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, and [www.Colorado.EDU/disabilityservices](http://www.Colorado.EDU/disabilityservices)

Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at [www.colorado.edu/disability services](http://www.colorado.edu/disability_services)

expression, veteran status, political affiliation or political philosophy. Individuals who