# Economics 120A – Econometrics Fall 2014

MWF 11:00 am - 11:50 am, Center Hall 115

Instructor

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Office Hours: Mondays 12:30 pm - 2:00 pm; Fridays 12:30 pm - 1:30 pm

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**Teaching Assistants** 

Zachary Breig <u>zbreig@ucsd.edu</u>

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Office Hours: Mondays 5:30 – 7:00 pm (Sequoyah 244)

**Discussion Sections** 

Tuesdays 8:00 – 8:50 pm, Center Hall 105 Tuesdays 9:00 – 9:50 pm, Center Hall 105

#### Econ 120A - Econometrics A

# **Course Description**

As the first of the econometrics sequence, this course introduces the science of statistics. It is designed to provide the building blocks necessary to construct rigorous econometric analysis. These building blocks include basic statistics, probability rules, and the formal methods used by statistician to learn about the real world from the data.

### **Course Materials**

<u>Required Textbook</u>: "Introductory Statistics for Business and Economics" by T.H. Wonnacott and R.J. Wonnacott, Fourth Edition, John Wiley and Sons: New York. There is a custom version of the book, made specially to UCSD students. This book is exactly the same as the non-custom version, only less expensive.

Chapters on Textbook: 1, 2, 3, 4, 5, 6, 7, 8, and 9.

Required Software: The software for this course is Microsoft Excel spreadsheet program, which is available in the computer laboratory in the Economics Building #100, and in other computer labs on campus.

# Course Web Page

A course webpage is available at <a href="http://ted.ucsd.edu">http://ted.ucsd.edu</a>.

It will include information relevant to the course, such as announcements, homework assignments, information on Excel tutorials, practice problem sets, solutions, syllabus, schedule and more. You should check this page regularly.

# **Lectures and Discussion Sections**

It is important to come to every lecture. If you should miss a class, it is your responsibility to get the notes and any information provided in class. There are weekly discussion sections for this course. They are not mandatory. However, you are **strongly recommended** to attend them since the TAs will go over practice problems, the kind of problems you may encounter on exams. You will also be able to ask the TA any question about the material covered in the lectures during these discussion sections. The first discussion section will take place October 14<sup>th</sup>.

#### Homework

There will be two homework assignments in this course. You will be required to use Excel to complete them. They will be graded on effort, not on the correctness of answers. If you honestly attempt all the questions in the homework, you will get 100%. Complete all your homework assignments **on your own.** Remember, homework is assigned to assist you in learning the software and at the same time it is a good check of your understanding of the statistical concepts taught in class.

#### Grading

Your grade will be based on the homework assignments, the midterm examinations and the final examination.

The midterm exams are scheduled to Friday, October 31<sup>st</sup>, at lecture time, and Monday, November 24<sup>th</sup>, from 6:30 to 7:50 pm, in Center Hall 119. The final exam will take place on Tuesday, December 16<sup>th</sup>, from 11:30 am to 2:30 pm and will be cumulative. The questions asked on exams will be based on lectures, textbook reading and assigned or practice problems. We will calculate for each student two point totals: 1) One that puts a weight of 10% on homework assignments, 15% on first midterm exam, 25% on second midterm exam, and 50% on final. 2) And one that takes into account only the best midterm score (weighted by the correspondent percentage), the final score (weighted by 50% plus the weight of the weakest midterm) and the homework grade (weighted 10%). Student's grade in this course will be based on the higher of the two point totals.

There are no make-up exams - a missed midterm exam automatically commits a student to the second grading option. An average of the scores on the homework assignments will be your homework score, worth 10% of your course grade. The overall course grade, computed as specified above, will be curved. In general, the class average corresponds to the lowest B-.

#### **Academic Integrity**

Academic dishonesty will be treated in this course as a serious violation of university rules. As stated in the UCSD Policy on Integrity of Scholarship: "Integrity of scholarship is essential for an academic community. The University expects that both faculty and students will honor this principle and in so doing protect the validity of University intellectual work. For students, this means that all academic work will be done by the individual to whom it is assigned, without unauthorized aid of any kind." You can find information on the university's policy on academic integrity at this website: <a href="https://students.ucsd.edu/academics

#### **Honors Section (120AH)**

Students who earned mostly As in calculus and principles of microeconomics are encouraged to take the honors section, 120AH. 120AH is only offered fall quarter. It is a one-unit class that you take concurrently with this course or you can wait until next fall. 120AH is an opportunity to learn the 120A material in more depth with a faculty member. Honors sections typically include lectures on additional 120A material and/or involve reading and discussing academic research papers and/or doing an empirical project and writing a short paper. You will get the opportunity to work on skills that are difficult to offer in large classes such as writing and presenting your work. Since honors sections are capped at 20 students, the instructor will get to know you and be able to write an informed letter of recommendation.

## Tentative Schedule (exams dates will not change)

Days	Торіс	Textbook Chapter
Oct 6 <sup>th</sup> – Oct 10 <sup>th</sup>	Introduction to Statistics Descriptive Statistics	1-2
Oct 13 <sup>th</sup> Oct 15 <sup>th</sup> – Oct 17 <sup>th</sup>	Descriptive Statistics Basic Probability	2 3
Oct 20 <sup>th</sup> – Oct 24 <sup>th</sup>	Basic Probability	3
Oct 27 <sup>th</sup> – Oct 29 <sup>th</sup>	Probability Distributions	4
Fri Oct 31 <sup>st</sup> (Lecture time)	First Midterm Examination	1-3
Nov 3 <sup>rd</sup> – Nov 7 <sup>th</sup>	Probability Distributions	4
Nov 10 <sup>th</sup> – Nov 14 <sup>th</sup>	Sampling, Central Limit Theorem	6
Nov 17 <sup>th</sup> – Nov 19 <sup>th</sup> Nov 21 <sup>st</sup>	Point Estimation, Law of Large Numbers Confidence Intervals	7 8
Nov 24 <sup>th</sup>	Confidence Intervals	8
Mon Nov 24 <sup>th</sup> 6:30 – 7:50 pm	Second Midterm Examination	4, 6, 7
Nov 26 <sup>th</sup>	Confidence Intervals	8
Dec 1 <sup>st</sup> – Dec 5 <sup>th</sup>	Hypothesis Testing	9
Dec 8 <sup>th</sup> – Dec 12 <sup>th</sup>	Two Random Variables	5
Tue Dec 16 <sup>th</sup> 11:30 am - 2:30 pm	Final Examination	1-9