Syllabus for Econ 113  
Section
Introductory Econometrics

<table>
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<tr>
<th>Term:</th>
<th>Summer 2016</th>
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<tr>
<td>Instructor:</td>
<td>Dr. Aaron G. Meininger</td>
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<tr>
<td>Time:</td>
<td>MW 9:00am-12:30pm</td>
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<tr>
<td>Room:</td>
<td>Social Science 1, Room 110</td>
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<td>Credit Hours:</td>
<td>5</td>
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<tr>
<td>Office:</td>
<td>Engineering2 - 403E</td>
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<td>Phone:</td>
<td>(831) 459-2743</td>
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Office Hour: Tu 10:30a.m. - 12:30p.m., or by appointment


Stata: http://www.stata.com

Small Stata is sufficient for this class

($35 for a 6 month license, installed on 3 computers)

Stata is also available in limited computer labs throughout the campus.

**Description:** Practical methods for organizing and analyzing economic data, testing economic hypotheses, and measuring economic relationships. Regression analysis is the main empirical method, and basic statistical and probability theory is included. Students gain hands-on computer experience with an econometric software package. Students cannot receive credit for this course and Applied Mathematics and Statistics 113. (General Education Code(s): SR, Q.)

**Prerequisite(s):** Prerequisite(s): courses 1 and 2; Applied Mathematics and Statistics 5 or 7; and one of the following: course 11B, Applied Mathematics and Statistics 11B, Mathematics 22, or Mathematics 23A.

**Course Outline:** We will be covering Chapters: 1, 2, 3, 4, 7, 9, 13, 14, and 15. We will cover certain section from the chapters, they are listed below:

| 1   | Introduction to Econometrics | Wooldridge 1.1 - 1.2 |
| 2   | Types of Data                | Wooldridge 1.3 - 1.4 |
| 3   | Descriptive Statistics       | Wooldridge A.1 - A.2, B.1, C.1 - C.2 |
| 4   | Simple Linear Regression     | Wooldridge 2.1 - 2.4 |
| 5   | Multivariate Regression      | Wooldridge 3.1 - 3.3 |
| 6   | Hypothesis Testing           | Wooldridge 4.1 - 4.3 |
| 7   | Binary Variables             | Wooldridge 7.1 - 7.7 |
| 8   | Causality and Endogeneity    | Wooldridge 9.2, 9.4, 9.5 |
| 9   | Differences in Differences   | Wooldridge 13.2 - 13.4 |
| 10  | Fixed Effects                | Wooldridge 14.1 |
| 11  | Instrumental Variables       | Wooldridge 15.1 |
| 12  | Regression Discontinuity     | Supplemental Handouts |

Course readings have been selected to correspond to the material covered in lecture. The textbook has many terrific examples to supplement those covered in lecture and very good practice problems at the end of each chapter.

*This course syllabus provides a general plan for the course; deviations may be necessary. Courses 100A or 100B strongly recommended as preparation.*
Week 1
Monday: Introduction, Lesson 1, Lesson 2
Wednesday: Lesson 3, Lesson 4, Lesson 5, HW1

Week 2
Monday: Lesson 5, Lesson 6, Lesson 7
Wednesday: Lesson 7, Review for midterm, Midterm 1, HW2

Week 3
Monday: Lesson 8, Lesson 9, Lesson 10
Wednesday: Lesson 10, Lesson 11, Lesson 12, HW3

Week 4
Monday: Lesson 12, Lesson 13, Lesson 14
Wednesday: Lesson 14, Review for midterm, Midterm 2, HW4

Week 5
Monday: Lesson 15, Lesson 16, Lesson 17
Wednesday: Review for Final, Final Exam
Expected Conduct: Students are expected to be attentive and not to interfere with the learning of others. Side conversations should be kept to the bare minimum, unless we are doing group work. Cell phones and other electronic devices should be on silent mode or turned off.

Students are allowed (and encouraged) to work with classmates or to come to my office for help. Homework is assigned as a learning exercise. Even while working with others, you should be sure you understand and can solve the exercises independently. Students may be assigned to work with a small group, either in class or out of class. These groups will be asked to present solutions, proofs, etc. to the class.

Students are expected to attend and participate in class. By participation, I mean being on time, paying attention, taking notes, asking relevant questions, working out examples, answering questions, giving suggestions, possibly demonstrating techniques for the class, etc.

Attendance: Students are expected to attend class daily and arrive in a timely fashion. Attendance will be taken. Students are automatically given 5% towards their final grade for attendance. Students will lose 1% point per absence after 2 unexcused absences. Each time you are late counts as .5 of an absence.

Policy on Academic Honesty: Plagiarism and cheating will not be tolerated and may lead to course failure and possible dismissal from the University. You are responsible to being attentive to or observant of campus policies about academic honesty as stated in the University’s Student Conduct Code. You may work with a friend on homework but write your own answers. Students who turn in written assignments with identical answers will both receive zeroes on the assignment.

Homework/Quizzes: Problem sets provide an opportunity to practice methods and develop intuition. You will also analyze real data using Stata. You must submit the STATA results (there is a resource that gives instructions on this). Assignments must be turned in at the start of class and late assignments are not accepted.

In-Class Exams: There will be two 100 points in-class exams. The exams are scheduled for Wednesday, August 3rd, and Wednesday, August 17th. Each midterm is worth 25% of your total grade for the course. These two exams may test any material covered thus far in the course. You are responsible for mastering material covered by the lecture notes, section notes, assigned readings, and assignments (including writing STATA code and interpreting the output). You will be expected to use what we have learned to solve new questions.

Make-Up Policy: There will be no makeups on homework/quizzes, and in-class work. Makeups on an exam will be given at the discretion of the instructor. A legitimate and verifiable excuse is required. If the excuse is approved, the makeup will be given within one week of the missed test.

Final Exam: The final exam is a comprehensive exam worth 200 points. It is scheduled for Wednesday, August 24th from 10:30am - 12:30 PM Social Science 1, Room 110. It is here, in our classroom. The final is worth 35% of your total grade for the course. A comprehensive exam covering all topics from the course. You are responsible for mastering material covered by the notes, sections, assigned readings, assignments (including writing STATA code and interpreting the output). You will be expected to use what we have learned to solve new questions. The University’s final exam regulations will be strictly followed.

Grades: There will be two midterms and a final, along with homework and attendance.

Grades will be calculated based on the following weights:

- 25% Exam 1
- 25% Exam 2
- 35% Comprehensive final exam
- 10% Problem sets
- 5% Attendance
Nobody in this class should get below a C-, if you are having troubles and need help, please come see me IMMEDIATELY! Do not wait until it is too late in the semester, because it will be harder for me to help you at that point.

**Important Deadlines:** Registration and add/drop ends August 1. The last day to withdraw from the course is August 12.

**Student Disabilities Policy:** If you have now or develop during this semester a physical or learning disability and you want your professor to make reasonable accommodations for that, you must contact the Disability Resource Center (DRC) at (831) 459-2089. Once the Disability Resource Center has received appropriate documentation, they will inform your instructors.

**Academic Assistance at UCSC:**

1. MSI Sections: