School of Politics and Economics
Econ 382: Econometrics I **spring 2016**

Syllabus

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office hours: Tuesday 10:30-12pm or by appointment (the best way to reach me is via email).

Teaching assistant: Menbere Haile
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office hours: TBA

Textbook:

- **Required**: "Introductory Econometrics: A Modern Approach," by Jeffrey M. Wooldridge, 5th ed. South-Western Cengage Learning, 2012. You can also get the previous edition (4th edition).
- Recomended: Stock and Watson, Introduction to Econometrics. Pearson Addison Wesley; 3d edition. ISBN: 978-0138009007

Overview: Econ382 is the first econometrics course at the graduate level. The course focuses on the basic econometric theory with computer applications. We will cover all of the traditional econometrics technique starting from the simple and the multiple regression models to the simultaneous equation system estimation. In addition, we will introduce more advanced models which utilize longitudinal samples. In all these models, the emphasis will be on statistical inference and we will also pay attention to the application of the models in industrial organization, labor, health, and elsewhere in economics and social sciences. It is hoped that throughout the course, students will gain a thorough knowledge and understanding of econometrics theory and also develop useful skills in applying the methods to the empirical work. The focus will be on empirical work rather than on theoretical topics.

Prerequisites: ECON381 Probability & Statistics for Econometrics or ECON308 Mathematics for Economists is a prerequisite for this course. I assume here that you understand the basics of linear algebra and the derivation of the distribution of certain quadratic forms, which are useful for statistical inference. If you have not taken ECON308 or ECON381, you will need to see me after the first lecture.

Computing and Software: This course is designed to introduce students to econometrics methods that are useful in applications. The assignments will cover both methods and applications and

will provide an opportunity to learn the operational aspects of the subject. STATA is recommended as it is a good software package to use for most of the computational work in the course.

Time and location: We will meet Tuesday at 1pm - 3:50pm in Burkle 14.

Grades: The graded material in this class is divided into four parts: homework assignments, two midterm exams, a final paper + presentation and a final exam. These parts will count toward your final grade as follow:

	Percentage
Homework	20%
Midterm I	20%
Midterm II	20%
Presentation	15%
Final exam	25%

HW: Some of the homework will involve econometric estimation. You are allowed to use any statistical software, but it's highly recommended to use Stata. Please turn in your homework directly to Firas (TA), as he will be responsible for grading them. If for any reason you are not able to turn in your answers on time, you must contact Firas or me **prior** to the due time.

Presentation: Sometime at the beginning of the semester, after class size finalizes, the class will be divided into 6 groups. Each group will have to analyze a question chosen by the group. The question could be from any field in social science as long as you use the methods learned in class. I will provide further guidance/instructions in class.

Midterm Exams: The dates of the two midterm exams are on the attached schedule. Please plan your schedule accordingly. The exams will be based on all the material covered up until the class before the midterm. In the week before the exam, I will review the material and provide more information about what to expect in the exam.

Final Exam: The final exam is scheduled on May 10th during class time. Unless you have to write another exam at that day, this time is unchangeable. The exam will cover all the material since the beginning of the semester, but will focus on the material after the second midterm exam.

Grade Scale: Your grade will be calculated using the following scale. Grades with plus or minus designations are at the professor's discretion.

Letter Grade	Grade Point	Description	Learning Outcome
A	4	Complete mastery of course material and additional insight beyond course material	Insightful
B	3	Complete mastery of course material	Proficient
C	2	Gaps in mastery of the course material; not at level expected by the program	Developing
U	0	Unsatisfactory	Ineffective

Continual matriculation at CGU requires a minimum grade point average (GPA) of 3.0 in all coursework taken at CGU. Students may not have more than two incompletes. Details of the policy are found on the Student Services webpage (http://www.cgu.edu/pages/5081.asp).

Course Policies: The CGU institutional policies apply to each course offered at CGU. A few are detailed in the space below. Students are encouraged to review the student handbook for the program as well as the policy documentation within the bulletin and on the Registrar's pages (http://bulletin.cgu.edu/ http://www.cgu.edu/pages/179.asp).

Attendance Policy: Attendance is optional! But students are encouraged to attend all classes. If a student has to miss a class, he or she should arrange to get notes from a fellow student and is strongly encouraged to meet with the teaching assistant to obtain the missed material. I will also post all the lecture notes in Canvas.

Scientific and Professional Ethics: The work you do in this course must be your own. Feel free to build on, react to, criticize, and analyze the ideas of others but, when you do, make it known whose ideas you are working with. You must explicitly acknowledge when your work builds on someone else's ideas, including ideas of classmates, professors, and authors you read. If you ever have questions about drawing the line between others' work and your own, ask the course professor who will give you guidance. Exams must be completed independently. Any collaboration on answers to exams, unless expressly permitted, may result in an automatic failing grade and possible expulsion from the Program. Additional information on CGU academic honesty is available on the Student Services webpage (http://www.cgu.edu/pages/1132.asp).

Accommodations for Students with Disabilities: CGU is committed to offering auxiliary aids and services to students with verifiable disabilities, in compliance with Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990. To ensure that their individual needs are addressed, students with special needs are encouraged to contact the Dean of Students Office or the Office of Disability Services, as early as possible. Additional resources can be found on the linked page (http://www.cgu.edu/pages/1154.asp).

Mental Health Resources: Graduate school is a context where mental health struggles can be exacerbated. If you ever find yourself struggling, please do not hesitate to ask for help. If you wish to seek out campus resources, here is some basic information about Monsour

(http://www.cuc.claremont.edu/monsour/):

"Monsour Counseling and Psychological Services (MCAPS) is committed to promoting psychological wellness for all students served by the Claremont University Consortium. Our well-trained team of psychologists, psychiatrists, and post-doctoral and intern therapists offer support for a range of psychological issues in a confidential and safe environment."

Phone 909-621-8202; Fax 909-621-8482

After hours emergency 909-607-2000

Address: Tranquada Student Services Center, 1st floor

757 College Way

Claremont, CA 91711

Reading Assignments and Schedule: Below you will find a schedule of the course and reading assignments. The discussions will be more productive for you if assignments are read prior to the class on that date.

Week	Date	Topic	Chapter
1	19-Jan	Review: statistics	Appendix B
2	26-Jan	Review: statistical inference	Appendix C
3	2-Feb	Simple linear regression	Ch2
4	9-Feb	Multiple linear regression-estimation	Ch3
5	16-Feb	Multiple linear regression-inference	Ch4
6	23-Feb	Midterm 1	
7	1-Mar	Multiple regression-OLS asymptotics&furture issues	Ch5-Ch6
8	8-Mar	Multiple regression-qualitative variables	Ch7
9	13-Mar	Spring break	
10	22-Mar	Hetroscedasticity	Ch8
11	29-Mar	Data problems	Ch9
12	5-Apr	Midterm 2	
13	12-Apr	Panel data	Ch13
14	19-Apr	Instrumental variables estimation	Ch15
15	26-Apr	Simultaneous equations models	CH16
16	3-May	Presentation	
17	10-May	Final Exam	