LUISS Guido Carli
Econometrics – (AC3)

Last updated: September 15, 2013

Instructor:
Giuseppe Ragusa
gragusa at luiss dot it
Office hours: Wednesday, 10:00-11:30

Teaching Assistants:
Federica Romes
*(*fromei at luiss.it*)*
OH: Monday, 12:00-13:30

Siria Angino
(sangino at luiss dot it*)*
OH: Tuesday, 15:00-16:00

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web page: http://gragusa.org/teaching/ase/

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1 Course description

The aim of this course is to provide an introduction to the practice of econometrics. While both theoretical and practical aspects of econometrics will be covered, emphasis will be on intuitive understanding: concepts will be illustrated with real world applications on real world data.

2 Class website

The class website is http://gragusa.org/teaching/ase/. Please, be sure to visit the course web page regularly, as all materials for the class, occasional messages and any changes in the schedule will be posted there.

3 Textbooks

The textbook we'll be using is Stock and Watson's Introduction to Econometrics (3rd edition)

- Stock, James H. and Mark W. Watson, Introduction to Econometrics, Addison Wesley; 3rd edition, ISBN: 1408264331

Stock and Watson's *Introduction to Econometrics* is nicely organized and easy to read. However, no book is a perfect fit for everyone, and there are many other books you can look at for reference. A good example is Jeffrey Wooldridge's *Introduction to Econometrics*

- Jeffrey Wooldridge, Introductory Econometrics, South Western, fourth edition, 4th edition, ISBN: 0324788908

4 Exams and grading policy

You have two options:

- **(Standard option)** You take a Final written examination on TBA and an oral exam on TBA. Your grade will be the average of the two. In order to pass the class, you have to score more than 18/30 in each exam.
- **(Midterm option)** You take two written examinations, a Midterm on November, 7th and a **comprehensive** Final on TBA. In this case your grade in the class will be calculated as the maximum between the average of your grades in the two exams and the grade in the final. For example, suppose you earn a 24/30 in the Midterm. If you earn 20 in the Final, your final grade will be $(24+20)/2 = 22/30$; if instead your score on the final is 29 your final grade will be 29/30. If you score less than 18/30 in the Midterm you will have to take both the written and the oral examinations described in the standard option. There is a catch. **Only students who have turned in all problem sets will be allowed to choose the midterm option.**

	Midterm Option		Standard Option	
	Midterm (Written)	Final (Written)	Final (Written)	Oral Exam
Dates	30/10/2012	13/12/2013	13/12/2013	13/12/2013
			TBA	TBA
Weights	50%	50%	50%	50%
Total Grade	$\max\{(Midterm + Final)/2, Final\}$			

No student will be allowed to take the exam on two subsequent exam dates. No exceptions will be made.

5 Problem set

There will be a weekly Problem Set. They consist of a mix of theoretical and applied questions. You can work on these problem in group up to 4 students. However, each student must turn in its own write up of the solution to the problems.

6 Computer software

The software that will be used in this course is R. No prior knowledge of this software package is assumed. This package will be introduced in the TA Sessions. R is installed on all computers in A301 and A301.

7 TA sessions

We have two very capable teaching assistants assigned to this course: Federica Romei and Siria Angino. They will lead a weekly session which will be held in the computer lab (A306). These classes are in important part of the course and regular attendance is strongly advised. During these sessions, the TA will review concepts introduced during lectures.

Below is TA sessions schedule:

TA	Where	When	Who
			Students whose name starts with the letter
Federica Romei	A301	Tuesday, *13:30-15:00*	**A – G**
Siria Angino	A306	Tuesday, *13:30-15:00*	**H – Z**

8 Learning outcomes you are expected to achieve

By the end of the course, students are expected to:

1. understand the statistical assumptions underlying regression analysis, and when they are appropriate;
2. be able to understand, interpret and evaluate data analysis performed by others;
3. be able to construct basic forecasting models;
4. become familiar with R.

9 Attendance

It is expected that all students attend the lectures and the TA sessions, be up to date with their readings and be prepared to participate fully in class. If you have problems mastering the material presented in class, please ask questions in class or during office hours. If you miss a class I expect that you will catch up the missed notes from another student. I will not be giving out my notes to any student.

10 Cheating and other forms of dishonesty

I have no tolerance for cheating. I regard academic dishonesty as a very serious offense. Students caught cheating during exams will fail the class and will be reported to the appropriate officer of the college.

11 Cell phone policy

The use of cell phones during class will be regarded as a sign of disrespect and it will be treated accordingly.

12 Topics

n.	date	topic
01	W 18 September 2013	Introduction and review of statistics
02	F 20 September 2013	Review of statistics
03	W 25 September 2013	Bivariate regression I
04	F 27 September 2013	Bivariate regression II
05	W 02 October 2013	Multiple regression I
06	W 09 October 2013	Multiple regression II
07	F 11 October 2013	Multiple regression III
08	W 16 October 2013	Nonlinear regression models I
09	F 18 October 2013	Nonlinear regression models II
10	W 23 October 2013	Nonlinear regression models III
11	F 25 October 2013	Econometrics in action
12	W 30 October 2013	Midterm
13	W 06 November 2013	Assessing regression studies
14	F 08 November 2013	Panel Data I
15	W 13 November 2013	Panel Data II

16	F	15	November	2013	Binary dependent variable I
17	W	20	November	2013	Binary dependent variable II
18	F	22	November	2013	Instrumental variable regression I
19	W	27	November	2013	Instrumental variable regression II
20	F	29	December	2013	IV regression III
21	W	04	December	2013	Program evaluation I
22	F	0	December	2013	Program evaluation II