

**LUISS Guido Carli**

**Econometric Theory – Mosec 2011/2012**

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**Office hours:** TBA

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**web page:** <http://www.gragusa.org/teaching/etmosec/>

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# 1 Course Description

The purpose of the course is to provide the necessary tools for a thorough understanding of asymptotic theory in classical econometrics. At the end of the course you will be able to

1. perform estimation and testing in linear cross-section regression models;
2. to feel sufficiently comfortable with asymptotic theory for linear models;
3. implement basic cross-section methods as needed for a advanced thesis.

The following topics will be covered: Single equation linear model: identification and estimation. Asymptotic properties of OLS estimators. Testing (Wald and Lagrange). Omitted Variables. Measurement Error. Instrumental variables estimation of single equation linear model.

# 2 Class Website

The class website is <http://www.gragusa.org/teaching/etmosec/>. 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

## Required:

- Bruce Hansen, Econometrics, [\[Download here\]](#)

## Optional:

- Wooldridge, J.M. (2010), *Econometric Analysis of Cross Section an Panel Data*, MIT Press.
- Cameron, A.C. and P.K. Trivedi (2005), *Microeconometrics: Methods and Applications*, Cambridge University Press.
- Hal White (2011), *Asymptotic Theory for Econometricians*, Academic Press

# 4 Computer software

The software that will be used in this course is **Matlab**. No prior knowledge of this software package is assumed. This package will be introduced in the TA Sessions.

## **5 TA Sessions**

Federica Romei will lead a weekly session which will be held in the computer lab. These classes are an important part of the course and regular attendance is strongly advised.

## **6 Attendance**

It is expected that all students attend both the lectures and the TA sessions, be up to date with their readings and be prepared to participate fully in class. Please ask questions in class or during office hours if you have problems with the material.

## **7 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.

## **8 Cell phone policy**

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