COURSE SYLLABUS

Advanced Econometrics 2

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Spring 2015
Course level: PhD
Credits: 2
Pre-requisites: Advanced Econometrics 1
Course website: www.sites.google.com/site/robertplieli
Office hours: by appointment

Course Description
The core course Advanced Econometrics 2 is aimed at teaching applied research methods by offering a range of cross-sectional, panel, and time series econometric techniques. In particular, Advanced Econometrics 2 covers recent developments in program evaluation and panel data regressions as well as some advanced time series and statistical techniques that do not fit into Intermediate Econometrics.

Learning Outcomes
By successfully completing Advanced Econometrics 2 students will be able to:
- Estimate and interpret the spectral density of a time series.
- Understand the statistical method called „the bootstrap” and apply it in a wide range of situations.
- Understand the framework of counterfactual analysis.
- Understand the framework of imperfect compliance and simple instrumental variables.
- Evaluate the internal validity of program evaluation analysis.
- Carry out regression discontinuity and matching analysis.
- Evaluate the internal validity of difference-in-differences analysis.

Course Requirements
Three homeworks (20% each) and a final (40%)

Texts:

There will be an additional reading list posted on the first day of class with recommended and required articles.
COURSE SCHEDULE

Lectures 1-2 Spectral analysis [H] 6

Lecture 3 Bootstrapping [L] 6.5 (recommended)

Lecture 4-7 Treatment effects in cross sectional data. Selection on observables and unobservables. [IW] sections 2 (potential outcomes), 3 (treatment effect def), 4 (randomized experiments), 6.3 (imperfect compliance, IV), 6.4 (RD), 5.1 & 5.5 (matching), [AP] sections 2.1 (potential outcomes), 2.2 (randomization), 4.4 (IV), 6 (RD)

Lecture 8-10 Adding a time dimension: difference-in-differences and some other applied panel models [AP] 5, [W] 10.1-10.3, 10.5-10.6, 11.1-2


Lecture 12 Left blank (will be used to soak up delays in the schedule or elaborate on some of the previously discussed topics)