

## Syllabus Summer 2013

**Course** Introduction to Applied Econometrics  
**Lecturer** Dragana Stanišić

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## Classes

**Time:** 4 Weeks  
June, 2013

**Place:** Beogradska Bankarska  
Akademija  
Zmaj Jovina 12,  
Beograd

### Description of the course:

The course will introduce the students to the basics of econometric analysis for working with cross-section and panel data. It will refer to the economic analysis before the application of econometric tools. Also, the course will provide students with practical examples of econometric analysis. The whole course will be organized in two segments: lectures and exercises. Some of the topics that will be covered include: causal inferences and observational data, linear regression models, dummy variables, fixed and random effects models, etc. The organization of material covered in class will be modified to fit to students' interests and needs.

### Assignments and Exams

Mid. Exam	20%
Final Exam	40%
Term Paper	30%
Class Participation	10%

### Midterm and Final Exams

Exams will be composed of multiple choice and open ended questions, referring to material covered in class.

### Term Paper (Deadline by end of September, 2013)

Students who would like extra credit are invited to write a term paper in which they demonstrate that they have mastered the material covered in the course. They should submit a preliminary outline of the term paper by the third week of the course. Students are free to choose the topic as long as they use the empirical tools covered in the class in the paper. The paper should be min 6 pages long (double spaced, 12 font).

### Textbooks

Wooldridge, J. M. (2006) Introductory Econometrics - A Modern Approach 2e.  
Kennedy, P. (2003). A guide to Econometrics - Fifth Edition.

### Classes Schedule

#### Lectures

Week 1	Introduction	Wooldridge, Chapters 1-3
Lecture 1	Steps in empirical analysis; Econometric models; Structure of economic data; The simple regression modes; The least square estimates.	
Lecture 2	Algebraic properties of OLS statistics; non-linearity in simple regression; multiple regression analysis; the properties of expected values of the OLS estimates.	
Lecture 3	Inference; Testing hypothesis	

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<b>Week 2</b>	<b>OLS Estimates; Cross-Section</b>	Wooldridge, Chapters 5-6
Lecture 4	Properties of estimators; more on functional forms; models with qualitative information.	
Lecture 5	Models with binary dependent variable; f-n form specifications; unobserved explanatory variables; measurement error in dependent and explanatory variables.	
Lecture 6	Going over examples in literature, and midterm exam.	
<b>Week 3</b>	<b>Simple Panel Data Methods</b>	Wooldridge, Chapters 7
Lecture 7	Year effects, two period analysis; wage gender gaps; organizing data issues.	
Lecture 8	Advanced panel data methods; fixed effects; random effects; random vs. fixed; applying panel data methods to other data structures.	
Lecture 9	Issues with panel data (solving examples).	
<b>Week 4</b>	<b>IV Estimation of the Multiple Regression Model</b>	Wooldridge, Ch.15-17
Lecture 10	Omitted variable bias derivation; two stage least squares; simultaneous equations models; identifying and estimating SEM.	
Lecture 11	Truncated modes, estimating truncated models; some basics of probit and logit models.	
Lecture 12	Recap of the topics covered in the course. Discussion on how to carry out the empirical projects. Final Exam.	
<b>Exercises</b>	STATA exercises will follow the lectures. The datasets with specific tasks will be provided to students.	