

Econometrics: Part A

Instructor:

Dr Angelos Alexopoulos, email: angelos@aueb.gr

Teaching times:

Thursdays, 9am-12pm, room 812.

e-Class:

<https://eclass.aueb.gr/courses/OIK438/>¹

Microsoft Teams Code:

nf93r02²

Course Description: The course introduces the linear regression model. We discuss its estimation by using the Ordinary Least Squares (OLS) method and we provide the finite- and large- sample properties of the OLS estimators. We present hypothesis testing for the parameters of the model and we also discuss the generalised least squares method of estimation that accounts for violations in the main assumptions of the model. If there is enough time we will cover topics such as time series regression and we will introduce the generalised linear model.

Course structure:

- The linear regression model: OLS estimation and hypothesis testing.
- Large sample properties of the OLS estimators and hypothesis testing by relaxing the normality assumption.
- Generalized Least Squares.
- Time series and panel data regression.
- The generalized linear model: definition and estimation.

Grading: The final mark will be a combination of written exams and homework.

Suggested reading:

- Provided slides and own notes.
- W.H. Greene (2012): *Econometric Analysis*, 7th ed, Prentice Hall.
- F. Hayashi (2000): *Econometrics*, Princeton UP

¹The e-class will contain notes, exercises, further readings and information concerning the lectures, corrections, announcements, etc. The relevant material could be updated during the course. The students must consult the e-class systematically and are strongly encouraged to upload questions, answers, comments, etc.

²The MS Teams group can be also useful since it may contain videos of elaborations of notions examined in the lectures, corrections of errors, etc.