



Exchange programme Vrije Universiteit Amsterdam

Vrije Universiteit Amsterdam - Exchange programme Vrije Universiteit Amsterdam - 2024-2025

Exchange

Vrije Universiteit Amsterdam offers many English-taught courses in a variety of subjects, ranging from arts & culture and social sciences, neurosciences and computer science, to economics and business administration.

The International Office is responsible for course approval and course registration for exchange students. For details about course registration, requirements, credits, semesters and so on, please [visit the exchange programmes webpages](#).

Econometrics III

Course Code	E_EOR3_TR3
Credits	6
Period	P4
Course Level	300
Language Of Tuition	English
Faculty	School of Business and Economics
Course Coordinator	prof. dr. S.J. Koopman
Examiner	prof. dr. S.J. Koopman
Teaching Staff	prof. dr. S.J. Koopman
Teaching method(s)	Seminar, Computer lab, Lecture

Course Objective

Obtaining basic understanding of multivariate econometric methods including seemingly unrelated regressions, panel data methods, difference-in-differences, vector autoregressive models, impulse responses, cointegration, and vector error correction models. The theory, practice and empirical aspects are equally important.

Course Content

Econometrics III provides a thorough introduction to multivariate econometrics including panel data models and multivariate time series models. In particular, we will discuss fixed effects, random effects, one- and two-error component panel models, vector autoregressive models, impulse responses, cointegration, vector error correction models, including model properties, estimation, and implementation for real data.

Additional Information Teaching Methods

3-4 hours per week of lectures, 2-3 hours per week of tutorials, (online) support for assignments

Method of Assessment

Exam (50%) and practical assignments (50%)

Entry Requirements

There are no formal entry requirements but please take a look at the recommended background knowledge.

Literature

Literature references:

- H. Lütkepohl, New Introduction to Multiple Time Series Analysis (2006), Springer
- J.D. Hamilton, Time Series Analysis (1994), Princeton University Press
- B.H. Baltagi, Econometric Analysis of Panel Data (5th Edition, 2013), Wiley

Additional Information Target Audience

The course is targeted at students in the Bachelor Econometrics and Operations Research (EOR) and in the Bachelor Econometrics and Data Science (EDS).

It is also recommended for students who are not enrolled in the Bachelor EOR and EDS, but who are interested in pursuing a M.Sc. in Econometrics.

Additional Information

The course is suitable to be taken in an exchange program.

Explanation Canvas

All course materials will be made available on Canvas.

Recommended background knowledge

This course is open to all students; it is the responsibility of the student to have obtained the necessary background for this technical and challenging course. A strong recommendation is to have successfully completed the main courses in Year 1 and the Year 2 course Econometrics I. It is further strongly recommended to have completed the Year 2 courses Econometrics II. Generally, we require the student to master an intermediate level in algebra, calculus, computer science (programming in R, Matlab or Python), probability, statistics and econometrics.