Schedule: PhD course in Econometrics, 15 ECTS credits, spring 2026, Linnaeus university, Växjö.

The course will be given at the Växjö campus, Linnaeus University (Rooms are yet t.b.a.), but some lectures will be streamed live online, through Zoom. There will also be computer classes to ensure a strong connection to empirical econometric modelling and these will be streamed live online, through Zoom.

We will be following the book *Econometric analysis: 8th Edition. W. H. Greene* closely throughout the course. The exam will consist of a number of home assignment involving theoretical matters as well as empirical analysis. Students who have not yet applied to the course should do this asap, directly to the course coordinator (see contact info below).

First Part

3/2, 13.00-15.00. Lecture 1 (Location to be announced later). Introduction. Linear algebra. Stochastic limit theory. **Lecturer: Peter Karlsson**

4/2, 09.00-12.00. Lecture 2 in classroom (Location to be announced later). Econometrics. The linear regression model. The least square estimator. **Lecturer: Peter Karlsson**

4/2, 13.00-16.00. Lecture 3 in classroom (Location to be announced later). The least square estimator. Estimating the Regression Model by Least Squares. **Lecturer: Peter Karlsson**

12/2, 9.00-12.00. Lecture 4 in classroom (Location to be announced later). Hypothesis tests and model selection. **Lecturer: Peter Karlsson**

12/2, 13.00-16.00. Lecture 5 in classroom (Location to be announced later). Functional form and structural change. **Lecturer: Kristofer Månsson**

13/2, 9.00-12.00. Lecture 6 in classroom (Location to be announced later). Nonlinear, semiparametric and nonparametric regression models. **Lecturer: Olle Hammar**

5/3, 09.00-12.00. Lecture 7 in classroom (Location to be announced later) . Endogeneity and instrumental variable estimation. **Lecturer: Kristofer Månsson.**

5/3, 13.00-16.00. Lecture 8 in classroom (Location to be announced later). Models for panel data. **Lecturer: Hans Grönkvist**

6/3, 09.00-12.00. Lecture 9 **via ZOOM**. The generalized regression model, heteroscedasticity and systems of equations. **Lecturer: Deliang Dai**

6/3, 13.00-16.00. Computer class 1. STATA exercises involving selected contents from lecture 2-8. **Instructor: Marcos Demitry via ZOOM.**

Second Part

25/3, 13.00-16.00. Lecture 10 in classroom (Location to be announced later) by **Stanislas Muhinyuza** about estimation frameworks in econometrics. Minimum distance estimation and GMM.

26/3, 09.00-12.00. Lecture 11 **via ZOOM** by **Deliang Dai** about maximum likelihood estimation.

26/3. 13.00-16.00. Lecture 12 **via ZOOM** by **Deliang Dai** about simulation-based estimation and inference and random parameter models. Bayesian estimation and inference.

16/4, 13.00-16.00. Lecture 13 in classroom (Location to be announced later) by **Kristofer Månsson** about regularized estimators and machine learning.

17/4, 09.00-12.00. Lecture 14 in classroom (Location to be announced later) by **Erik Prawitz** about discrete choices and event counts.

17/4, 13.00-16.00. Lecture 15 in classroom (Location to be announced later) by **Erik Prawitz** about limited dependent variables, truncation, censoring, and sample selection.

7/5, 09.00-12.00. Lecture 16 in classroom (Location to be announced later) by **Jonas Kolsrud** about serial correlation & nonstationary data.

7/5, 13.00-16.00. Computer class 2. STATA exercises involving lecture 10-16. **Instructor: Joakim Jansson via ZOOM.**

Literature: Econometric analysis: 8th Edition. W. H. Greene. Pearson Int. ed.

Lecturers
Kristofer Månsson (kristofer.mansson@lnu.se) Course responsible and Examiner.
Peter Karlsson (peter.s.karlsson@lnu.se) Course coordinator.
Stanislas Muhinyuza (stanislas.muhinyusa@lnu.se)
Deliang Dai (deliang.dai@lnu.se)
Hans Grönkvist (hans.gronqvist@lnu.se)
Erik Prawitz (erik.prawitz@lnu.se)
Olle Hammar (olle.hammar@lnu.se)

Computer classes
Marcos Demitry (marcos.demetry@lnu.se)
Joakim Jansson (joakim.jansson@lnu.se)