**Schedule**

**PhD course in Econometrics, 15 ECTS credits, spring 2020**

**Linnaeus university, Växjö**

All lectures are located to Växjö campus, Linnaeus University. The course is arranged in six blocks of lectures to facilitate for commuting students. Apart from traditional white-board lectures, there will also be computer classes to ensure a strong connection to empirical econometric modelling.

We will be following the book *Econometric analysis: 8th Edition. W. H. Greene* closely throughout the course, in the sense that each lecture corresponds to precisely one chapter in the book. The exam will consist of a number of home assignment involving theoretical matters as well as empirical analysis.

Students should apply to the course directly to the course coordinator (see contact info below).

*We are looking forward to seeing you next spring, warmly welcome to Växjö!*

20/1, 13.00-16.00. Lecture 1. Introduction. Linear algebra. Stochastic limit theory. Lecturer: TH

21/1, 08.00-11.00. Lecture 2. Econometrics. The linear regression model. The least square estimator. Lecturer: TH

21/1, 12.00-15.00. Lecture 3. Hypothesis tests and model selection. Lecturer: TH.

3/2, 13.00-16.00. Lecture 4. Functional form and structural change. Lecturer: PK.

4/2, 08.00-11.00. Lecture 5. Nonlinear, semiparametric and nonparametric regression models. Lecturer: PK.

4/2, 12.00-15.00. Lecture 6. Endogeniety and instrumental variable estimation. Lecturer: PK.

24/2, 13.00-16.00. Lecture 7. The generalized regression model and heteroscedasticity. Systems of equations. Lecturer: PK.

25/2, 08.00-11.00. Lecture 8. Models for panel data. Lecturer: TH.

25/2, 12.00-15.00. Computer class 1. STATA exercises involving selected contents from lecture 2-8. Instructor: AA.

9/3, 13.00-16.00. Lecture 9. Estimation frameworks in econometrics. Minimum distance estimation and GMM. Lecturer: PK

10/3, 08.00-11.00. Lecture 10. High-dimensional data and methods for regularization. Lecturer: TH

10/3, 12.00-15.00. Lecture 11. Maximum likelihood estimation. Lecturer: PK

20/4, 13.00-16.00. Lecture 12. Simulation-based estimation and inference and random parameter models. Bayesian estimation and inference. Lecturer: TH

20/4, 19.00 -? Social event, Växjö campus. Details tba

21/4. 08.00-11.00. Lecture 13. Discrete choices and event counts. Lecturer: HL.

21/4-18, 12.00-15.00. Lecture 14. Limited dependent variables, truncation, censoring, and sample selection. Lecturer: HL

4/5, 13.00-16.00. Lecture 15. Serial correlation: Lecturer TH

5/5-18, 08.00-11.00. Lecture 16. Nonstationary data. Lecturer TH

5/5-18, 13.00-16.00. Computer class 2. STATA exercises involving lecture 9-16. Instructor: AA.

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

Note: According to the publisher, this edition will be available for purchase in mid-December.

**Lecturers**

Thomas Holgersson (thomas.holgersson@lnu.se). Course coordinator.

Håkan Locking (hakan.locking@lnu.se)

Peter Karlsson (peter.s.karlsson@lnu.se)

**Computer classes**

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