## **COURSE DETAIL**

# **ECONOMETRICS Country** Sweden **Host Institution Uppsala University** Program(s) **Uppsala University UCEAP Course Level Upper Division UCEAP Subject Area(s)** Statistics Economics **UCEAP Course Number** 113 **UCEAP Course Suffix UCEAP Official Title ECONOMETRICS UCEAP Transcript Title ECONOMETRICS UCEAP Quarter Units** 6.00 **UCEAP Semester Units** 4.00

#### **Course Description**

This course covers basic econometrics. It requires at least a basic course in probability theory and statistical inference as a prerequisite since all the major concepts, methods, and models build upon probability theory and statistical inference. The course focuses mainly on the theory and applications of single and multiple linear regression analysis. Great emphasis is put on the estimation, inference, and interpretation of the multiple linear regression model and its extensions. The course also covers the assumptions of OLS, why they are needed and how to detect and deal with violations of these assumptions. The following topics are covered: general information about econometric models and their application within economic planning; linear-regression models with one or several explanatory variables; nonlinear models; estimation and hypothesis testing; Gauss-Markovs Nonlinear theorem; heteroscedasticity and autocorrelation; multicollinearity; measurement errors; instrumental variables; dummy variables; models with a dichotomous variable as dependent variable: LPM and the Logit-model; simultaneous equation models: the simultanity bias, identification; the two-stage least square method.

#### Language(s) of Instruction

English

**Host Institution Course Number** 

2ST092

**Host Institution Course Title** 

**ECONOMETRICS** 

**Host Institution Course Details** 

**Host Institution Campus** 

Faculty of Social Sciences

**Host Institution Faculty** 

**Host Institution Degree** 

**Host Institution Department** 

Statistics

### **Course Last Reviewed**

<u>Print</u>