UNIVERSITY OF CAMBRIDGE

Faculty of Economics

E300 Econometric Methods

Aims and Objectives

This module aims to provide an overview of basic econometric methods. The focus is on understanding and interpreting the econometric assumptions and techniques in light of actual empirical applications. Upon completion of this module, students should

- have a solid understanding of basic applied econometric methods
- be able to interpret and understand econometric research of others
- confidently use econometrics to analyse different kinds of economic data

Contents

This module covers the following topics

1. Ordinary Least Squares basics using matrix algebra notation
2. Finite sample and asymptotic inference in linear regression
3. Heteroskedasticity, Generalized Least Squares
4. Regression with time series data and serial correlation
5. Unit roots and cointegration
6. Maximum likelihood analysis, probit
7. Instrumental variables
8. Generalized Method of moments

Additional applied econometric topics are covered in S301 Applied Econometrics. A four-hour course on STATA software "STATA for dissertations" is optional but highly recommended.

Organization

The module consists of a lecture course with a total of 27 hours of lectures in Michaelmas term. In addition, there are 7 classes of 2 hours in Michaelmas term. The main purpose of these classes is to discuss the problem sets to get essential preparation for the exam.

Assessment

The examination for this module will be by a three-hour written exam.

Readings

Textbooks used for this module are:

- Jeffrey M. Wooldridge (2013), Introductory Econometrics: A Modern Approach, Fifth International Edition, Cengage Learning.
- J H Stock and M W Watson (2011), Introduction to Econometrics, Third Edition, AddisonWesley.
- Andrew Harvey (1990) The Econometric Analysis of Time Series, Second Edition, Pearson Education
- William Greene (2012) Econometric Analysis, Seventh Edition, Pearson Education

  Bruce Hansen (2018) Econometrics, available free of charge from https://www.ssc.wisc.edu/~bhansen/