APPLIES TO ACADEMIC YEAR 2016/2017

# DRE 7006 Panel Data/ Microeconometrics

**Programme**
Finance; Economics

**Responsible for the course**
Jon H Fiva

**Department**
Department of Economics

**Term**
According to study plan

**ECTS Credits**
6

**Language of instruction**
English

**Introduction**
This is an advanced econometric course on specification, estimation, and inference based on microeconometric data. The course covers regression analysis with panel data and other techniques useful for making causal inference with non-experimental data.

**Learning outcome**
After having completed this course, students should be able to critically discuss different estimation strategies in the context of models that include unobserved individual (firm, person, etc.) effects.They should be familiar with the potensial outcome framework and microeconomics methods useful for policy analysis using non-experimental data. Students should be able to implement these methods using statistical software (STATA).

**Prerequisites**
Admission to a PhD Programme is a general requirement for participation in PhD courses at BI Norwegian School of Management.

External candidates are kindly asked to attach confirmation of admission to a PhD programme when signing up for a course with the doctoral administration. Candidates can be allowed to sit in on courses by approval of the course leader. Sitting in on courses does not permit registration for courses, handing in exams or gaining credits for the course. Course certificates or confirmation letters will not be issued for sitting in on courses.

**Compulsory reading**
**Books:**
Wooldridge, Jeffrey M. 2010. Econometric analysis of cross section and panel data. 2nd ed. MIT Press

**Articles:**
During the course there may be hand-outs and other material on additional topics relevant for the course and the examination

**Recommended reading**
**Books:**
Cameron, Adrian Colin, Pravin K. Trivedi. 2005. Microeconometrics : methods and applications. Cambridge University Press
Cameron, Adrian Colin, Pravin K. Trivedi. 2010. Microeconometrics using Stata. Rev. ed. Stata Press

**Course outline**
1. Ordinary least squares (OLS) estimation (W 4)

2. Basic Panel data models (W 10)
a. Pooled OLS/ Random effects
b. Fixed effects/ First-differencing

3. Difference in differences estimator (W 6.5 )

4. Dynamic panel data models (W 11.6)

5.Treatment effects estimation (W 21)
a. Selection on observables
b. Instrumental variable methods
c. Regression discontinuity designs

**Computer-based tools**
STATA

**Learning process and workload**
Students are required to participate in class – both in discussions and by presenting models/material from the reading lists – as well as solve and hand in solutions to exercises and problems.

| Workload (6 ECTS) | |
|---|---|
| Lectures | 30 hours |
| Specified learning activities (including reading) | 75 hours |
| Autonomous student learning (including exam preparation) | 75 hours |
| Total | 180 hours |

**Examination**
30 hours individual home exam.
The final grade is pass/fail.

**Examination code(s)**
DRE 70061 home exam accounts for 100 % of the grade in the course DRE 7006.

**Examination support materials**
N/A

**Re-sit examination**
Re-takes are only possible at the next time a course will be held. When the course evaluation has a separate exam code for each part of the evaluation it is possible to retake parts of the evaluation. Otherwise, the whole course must be re-evaluated when a student wants to retake an exam.

**Additional information**
**Honour Code**
Academic honesty and trust are important to all of us as individuals, and represent values that are encouraged and promoted by the honor code system. This is a most significant university tradition. Students are responsible for familiarizing themselves with the ideals of the honor code system, to which the faculty are also deeply committed.

Any violation of the honor code will be dealt with in accordance with BI's procedures for cheating. These issues are a serious matter to everyone associated with the programs at BI and are at the heart of the honor code and academic integrity. If you have any questions about your responsibilities under the honor code, please ask.