

Swiss Leading House

Economics of Education, Firm Behaviour and Training Policies



Co-Director
Prof. Dr. Uschi Backes-Gellner



UNIVERSITÄT
BERN

Co-Director
Prof. Dr. Stefan C. Wolter

Fall Term 2013, University of Berne

Leading House Ph.D. Course Econometric Methods in Economics of Education - Syllabus -

Lecturer:	Prof. Dr. Rainer Winkelmann; University of Zurich
Workshop dates:	December 02-06, 2013
Location:	University of Berne Gesellschaftsstrasse 25 Room: 003
Preliminary Schedule:	The lectures take place in the form of an intensive 5-day course. Monday, Dec. 02: 17:00-20:00 Tuesday, Dec. 03: 09:00-18:00 Wednesday, Dec. 04: 09:00-18:00 Thursday, Dec. 05: 09:00-12:30 Friday, Dec. 06: 09:00-17:00
Module Number; ECTS:	tba; 3 ECTS

Course overview

The purpose of this course is to familiarize participants with econometric methods and models for empirical work in education economics. Topics include regression analysis, instrumental variables estimation, models for discrete and limited dependent variables, and models for heterogeneous treatment effects. Applications focus on the human capital production function and the determinants of and returns to schooling.

Topics

- I. Linear regression
Best linear predictor; Regression anatomy; Causal interpretation; Inference; Grouped data; Heterogeneity; Functional form; Weighting
- II. Dealing with endogeneity
Instrumental variables; Panel/Twin models; Difference in differences; Regression discontinuity
- III. Discrete dependent variables
Binary probit; Ordered/multinomial logit/probit; Interval data; Generalized linear models & Pseudo maximum likelihood
- IV. Sample selection models
Censored regression; Incidental censoring / Roy model;
- V. Heterogeneous treatment effects and the potential outcomes model
The identification problem; Heterogeneous potential outcomes; Matching; Local average treatment effect

www.economics-of-education.ch

The Swiss Leading House on “Economics of Education, Firm Behaviour and Training Policies”
A Research Programme of the State Secretariat for Education, Research and Innovation SERI

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Applications to economics of education include topics such as:

- How much, and what type of schooling
 - intergenerational mobility in schooling
 - sibling rivalry
 - college choice
 - graduation probability
- The effect of schooling on earnings
 - returns to schooling
 - overeducation
 - transferability of human capital
 - sheepskin effects
 - non-pecuniary returns to schooling
- The human capital production function
 - school quality
 - the effectiveness of training interventions
 - class size

Key literature

- Angrist, J. D. and S. Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton, University Press, 2008.
- Boes, S. and R. Winkelmann (2009). *Analysis of Microdata*. 2nd edition.
- Cameron, C. and P. Trivedi (2006). *Microeconometrics*.
- Winkelmann (2013) *Econometric Methods for Education Economics*, Skript.

Target audience and preconditions for participation

The course is particularly designed for doctoral students in economics of education. Doctoral students in economics or business economics with a strong interest in econometric analyses in economics of education are welcome as well.

Credit requirements and grading

1. Full course attendance is required to receive ECTS-Points. Students are expected to come prepared to the course. It will facilitate discussions and improve overall learning.
2. Take-home exam

Application

The number of participants is limited. Course registration **until October 18, 2013** is mandatory. Please send your application (including a one-page CV) to curdin.pfister@business.uzh.ch.