

Swiss Leading House VPET-ECON

A Research Center on the Economics of Education, Firm Behavior, and Training Policies



University of
Zurich ^{UZH}

Co-Director

Prof. Dr. Dr. h.c. Uschi Backes-Gellner

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Prof. Dr. Stefan C. Wolter

Spring Term 2023

Leading House Ph.D. Course “Randomized Experiments in Economics of Education” - Syllabus -

INSTRUCTOR	Prof. Dr. h.c. Eric P. Bettinger, PhD , Stanford University ebetting@stanford.edu
Workshop dates	June 19 – June 22, 2023
Location	University of Zurich, Room tba
Preliminary Schedule	The lectures take place in the form of an intensive 4-day course. Monday, June 19: 09:00-18:00 Tuesday, June 20: 09:00-18:00 Wednesday, June 21: 09:00-18:00 Thursday, June 22: 09:00-18:00
Module Number, ECTS	tba; 3 ECTS
Course Webpage	http://www.business.uzh.ch/professorships/emap/teaching.html

Course Description

The use of randomized experiments in education has become increasingly popular and prevalent in educational research. The US Department of Education and the World Bank have labeled randomized experiments as the “gold standard” in educational research. The Nobel Prize in 2019 was awarded to researchers who use randomized experiments.

This course focuses on the methodology of randomization in educational research. We focus on questions surrounding the use of randomization. Why is randomization so compelling? What assumptions are inherent in randomized designs? What are the hidden challenges to randomization? Is randomization always the “best” empirical strategy? How does one design randomized experiments? Is clustering a problem to randomization?

www.economics-of-education.ch

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A Research Program of the State Secretariat for Education, Research and Innovation

Prof. Dr. Dr. h.c. Uschi Backes-Gellner

University of Zurich, Department of Business Administration, Plattenstr. 14, CH-8032 Zürich

Tel. +41 44 634 42 81, backes-gellner@business.uzh.ch

Prof. Dr. Stefan C. Wolter

University of Bern, Department of Economics, Centre for Research in Economics of Education,

Schanzeneckstr. 1, Postfach 8573, CH-3001 Bern

Tel. +41 31 631 36 56, stefan.wolter@vwi.unibe.ch

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Course Objectives

By the end of the course, students will be able to

- Anticipate and describe ethical concerns that might arise in field experiments,
- Analyze and critique experimental designs used by other researchers,
- Design experiments which account for the practical, political, and other contextual constraints that exist in field experiment settings and with the appropriate sample size to allow for statistical inference

Topic and Objective	Readings
Introduction	
Paper Breakdown 1	Read: Joshua Angrist & Eric Bettinger & Erik Bloom & Elizabeth King & Michael Kremer, 2002. "Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment," <i>American Economic Review</i> , American Economic Association, vol. 92(5), pages 1535-1558. https://economics.mit.edu/files/24
Paper Breakdown 2	<ol style="list-style-type: none"> 1. Sule Alan, Ceren Baysan, Mert Gumren, Elif Kubilay, Building Social Cohesion in Ethnically Mixed Schools: An Intervention on Perspective Taking, <i>The Quarterly Journal of Economics</i>, Volume 136, Issue 4, November 2021, Pages 2147–2194. https://academic.oup.com/qje/article/136/4/2147/6164874 2. Miguel, Edward, and Michael Kremer. "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities." <i>Econometrica</i> 72, no. 1 (2004): 159-217. http://www.jstor.org/stable/3598853 3. Kofoed, M., Gebhart, L., Gilmore, D., & Moschitto, R. (2021). Zooming to Class?: Experimental Evidence on College Students's Online Learning During Covid-19. <i>Online Learning During Covid-19. IZA Discussion Paper</i>, (14356). https://docs.iza.org/dp14356.pdf
Promises and Perils of Experiments:	<p>Read section 4 of: Deaton, Angus. "Instruments of Development: Randomization in the tropics, and the search for the elusive keys to economic development." http://www.nber.org/papers/w14690.</p> <p>Read: Guido W. Imbens, 2010. "Better LATE Than Nothing: Some Comments on Deaton (2009) and Heckman and Urzua (2009)," <i>Journal of Economic Literature</i>, American Economic Association, vol. 48(2), pages 399-423, June. https://www.nber.org/system/files/working_papers/w14896/w14896.pdf</p>
Units of Randomization (Clusters and	Read: Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. "THE ROLE OF APPLICATION ASSISTANCE AND INFORMATION IN COLLEGE DECISIONS: RESULTS

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Blocks):	FROM THE H&R BLOCK FAFSA EXPERIMENT." The Quarterly Journal of Economics 127, no. 3 (2012): 1205-242. http://www.jstor.org/stable/23251984 .
Power Calculations	Read: Muralidharan, Karthik, and Venkatesh Sundararaman. "Teacher Performance Pay: Experimental Evidence from India." <i>Journal of Political Economy</i> , vol. 119, no. 1, 2011, pp. 39–77. <i>JSTOR</i> , JSTOR, www.jstor.org/stable/10.1086/659655 .
Randomization Isn't Random aka Balance:	Read: Bettinger, Eric P. "PAYING TO LEARN: THE EFFECT OF FINANCIAL INCENTIVES ON ELEMENTARY SCHOOL TEST SCORES." <i>The Review of Economics and Statistics</i> 94, no. 3 (2012): 686-98. http://www.jstor.org/stable/23261472 .
Life After the Lottery (Attrition, Fidelity, Multiple Comparisons)	<i>Optional:</i> Read: Angrist, Joshua D., Parag A. Pathak, and Christopher R. Walters. "Explaining Charter School Effectiveness." <i>American Economic Journal: Applied Economics</i> 5, no. 4 (2013): 1-27. http://www.jstor.org/stable/43189451 .
	<i>Optional:</i> Angrist, Joshua, David Autor, Sally Hudson, Amanda Pallais. " Evaluating Post-Secondary Aid: Enrollment, Persistence, and Projected Completion Effects " NBER Working Paper.
Ethical and Practical Concerns (including Compliance)	Read: Castleman, Benjamin and Lindsay Page. 2013. Summer Nudging: Can Personalized Text Messages and Peer Mentor Outreach Increase College Going Among Low-Income High School Graduates? EdPolicyWorks Working Paper. Download .
Threats to Validity and General Equilibrium	Read: Eric Bettinger, Nina Cunha, Guilherme Lichand, and Ricardo Madeira. 2021. "Are the Effects of Informational Interventions Driven by Salience?" Working paper. Available at: https://www.econ.uzh.ch/static/wp/econwp350.pdf
Heterogeneous Effects, Hawthorne and John Henry Effects	Read: Jackson, Kirabo, and Alexey Makarin. 2018. "Can Online Off-the-Shelf Lessons Improve Student Outcomes? Evidence from a Field Experiment." <i>American Economic Journal: Economic Policy</i> , 10 (3): 226-54. https://www.aeaweb.org/articles?id=10.1257/pol.20170211
Other Topics	
Student presentations	Presentation in class

Target audience and preconditions for participation

The course is particularly designed for doctoral students in the course programme on economics of education of the Swiss Leading House. Doctoral students in economics or business economics with a strong interest in randomized

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experiments are welcome as well. The seminar will take place en bloc in order to enable external Ph.D. students to attend.

Credit Requirements and Grading

1. Full course attendance. Students are expected to come prepared to class. It will facilitate discussion and improve overall learning.
2. Presentation in class
3. At the end of the course students will be asked to complete a take-home exam which is to be handed in 2 weeks after the end of the course. The work is to be done individually.

Pre-Class Exercises

Besides the readings, this class is going to have pre-class exercises. Students are expected to participate in a Zoom meeting on June 1, 15.00-17.00 (Zurich time). In this meeting, Eric Bettinger will talk students through the pre-class exercises.

Application

The number of participants is limited. Please send your application including a short CV to Fabienne Kiener (fabienne.kiener@business.uzh.ch) at the latest by **May 8, 2023**. UZH students who need to know whether they are accepted for the course before the end of the official booking deadline have to apply until **March 12, 2023**. For further details and questions please contact Fabienne Kiener.

WWF Statutory Course Policies

According to WWF study regulations, all exam dates are final as published in the VVZ and syllabus. This means that the final exam date is not negotiable. It will not be possible to take any exams on different dates.

Academic dishonesty in any form will not be tolerated. Anyone caught cheating or engaging in unethical behavior will be reported to the Dean's office according to the guidelines on academic dishonesty set forth by the University of Zurich.

The information in this syllabus supports the official information in the electronic university registration tool (VVZ – Vorlesungsverzeichnis). In cases of doubt, the official information at the VVZ is decisive.

For UZH students: Don't forget to officially register using the registration tool of the University of Zurich.