

SYLLABUS

Name of the course:	Advanced econometrics			
Teacher:	Thibaud DEGUILHEM			
University / organisation:	Université Paris Cité			
Language of teaching:	English			
ECTS:	6 ECTS			
Semester (S1, S2, S3 or S4):	<input type="checkbox"/> S1	<input type="checkbox"/> S2	<input checked="" type="checkbox"/> S3	<input type="checkbox"/> S4
Teaching method(s):	<input checked="" type="checkbox"/> Lecture courses		<input type="checkbox"/> Flipped classroom	
	Other:	Mix of lectures and practical exercises on software		
Type(s) of evaluation:	<input type="checkbox"/> Sitting exam		<input checked="" type="checkbox"/> Written report	
	<input checked="" type="checkbox"/> Oral defence		<input type="checkbox"/> Group project	
	Other comments:			
Expected deadline(s) for the evaluation(s):	Grading and evaluation will be based on a group replication of empirical results featuring one of the several methods covered in class. Students will be evaluated individually by a presentation of their work (oral defence). Sessions dedicated to the replication presentations will be organized at the end of the Semester.			
Expected date of final results:	A few days after oral defence.			
Summary of the content:	<p>The goal of this course is to familiarize students with the heterodox econometrics technics: from a theoretical (mathematical) perspective; from a practical and empirical point of view; but also in a more reflexive movement, as ideologically oriented tools. Students are evaluated on the replication of a research paper results, under the supervision of the professor. These practices in context are useful to understand the “how to” of econometrics, but also the presuppositions of the methodology. Nevertheless, some theoretical lectures will be given on the more advance and original methodologies as well as on statistics sociology.</p> <p>The scope of the course includes linear models for panel data (fixed effects) and quasi-experimental econometrics (Propensity Score Matching and DiD estimators). We’ll use R for computation.</p>			
Indicative list of lectures:	Introduction: “All models are wrong, but some are useful” (1); reminders on linear regression and panel models (2); causality, counterfactual, and experiments (1); quasi-experimental strategies: PSM (1); Diff-in-Diff estimator and recent advancement (2); presentation of the research papers to be replicated (1), Sessions dedicated to students’ questions about replication; Presentation: oral defence (2).			

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Short bibliography:	<p>Introduction to econometrics with R, available at https://www.econometrics-with-r.org/</p> <p>Angrist, J. D. et Pischke, J.-S. (2009). <i>Mostly harmless econometrics: An empiricist's companion</i>. Princeton University Press, New York.</p> <p>Gangl, M. (2010). Causal Inference in Sociological Research. <i>Annual Review of Sociology</i>, 36(1) :21-47.</p> <p>Wooldridge, J. M. (2010). <i>Econometric analysis of cross section and panel data</i>. MIT Press, Cambridge.</p>
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Fox & Weisberg (2011). An R companion to applied regression.

Fox, J. (2015). Applied regression analysis and generalized linear models.

Bernhard Pfaff (2008). Analysis of Integrated and Cointegrated Time Series with R.