Advanced Microeconometrics

ECTS : 3

Description du contenu de l'enseignement :

This course builds on existing classes in Microeconometrics (e.g., Microeconometrics in the M1, or Development Microeconometrics) and aims to provide an extended and in-depth understanding of advanced and novel techniques that are used in current microeconometric research. We will focus on the standard microeconometric toolbox (linear regression, panel data methods, IV, difference-in-differences) and focus on advanced topics, such as testing and falsification exercises for identifying assumptions or nonlinear estimation. The course covers both the theory behind these methods as well as software applications using real-world data in Stata.

Outline:

Session 1: Maximum likelihood estimation, nonlinear regression models, bootstrapping

Session 2: Advanced IV 1 - Assumption testing

Session 3: Advanced IV 2 - Nonlinear estimation

Session 4: Advanced DID 1 - Two-way fixed effects estimation & "New DID" (Bacon decomposition, Callaway & Sant'Anna estimator, Wooldridge's POLS estimator)

Session 5: Advanced DID 2 - Event study regressions, Sun & Abraham estimator, Synthetic Control methods

Session 6: Advanced panel data methods - Correlated Random Effects, nonlinear panel data estimation

Session 7: Student presentations

Compétence à acquérir :

After completing this course:

- Students will have an intuitive understanding of advanced techniques in microeconometrics.
- Students will be be able to understand and critically assess current research in microeconomics.
- Students will be be able to apply these methods in their own research.

Mode de contrôle des connaissances :

70% written exam & 30% in-class presentation of a research paper