基本情報

科目分類	専門科目	開講年次	1・2 年
時間割コード	2E641	開講区分	集中
開講科目名	Causal Inference in Microeconometrics with Applications to Program Evaluation	曜日・時限	他
主担当教員	奥西　孝至	単位数	2.0
授業形態	講義	ナンバリングコード	

担当教員一覧

詳細情報

▪授業のテーマ

The identification of causal relationships is one of the central objectives of a researcher in any field of research. In the last three decades much econometric and statistical research has been conducted on the identificationand the estimation of causal effects. The objective of the course is to introduce the student to the "state of the art" of causal inference in micro-econometrics.

Much of the research on causal inference has been developed in the program evaluation literature, mostly evaluating social or employment programs. This explains why most examples, illustrating the methods covered in this course, are taken from this literature. Nevertheless, it should be stressed that the methods can be applied to any field of economics and are therefore useful to any empirical researcher who is interested in the identification and estimation of causal effects.

▪授業の到達目標

At the end of the course the students should have acquired a good understanding which identifying assumptions are required for each method of causal inference that is covered in the course: methods based on the conditional independence (on “observables”) assumption, difference-in-differences, instrumental variables (allowing for treatment heterogeneity) and regression discontintuity design. In addition, the aim is also that the student acquires the basic capacity to implement these methods with appropriate software on real data and that he/she can correctly interprete the findings that are found based on these methods.

▪授業の概要と計画

The course will cover four important methods of causal inference: methods based on the conditional independence (on “observables”) assumption, difference-in-differences, instrumental variables (allowing for treatment heterogeneity) and regression discontintuity design.

Special attention will be paid to the practical aspects of an evaluation: acces to relevant data, identifying assumptions, estimation and interpretation of results. The course will concentrate more on the use of econometric methods than on their statistical properties, presumed to be known. It will also rather be focused on intuitions, than on proofs.

Schedule:
1. Introduction and Overview
2-3. Methods based on the conditional independence (on “observables”) assumption
4. Applications using Stata in the PC room
5-6. Difference-in-differences
7. Applications using Stata in the PC room
8. Instrumental Variables I
9. Applications using Stata in the PC room
10. Instrumental Variables II
11. Regression Discontinuity Design I
12. Applications using Stata in the PC room
13. Regression Discontinuity Design II
14. Review
15. Exam

*The above-mentioned course schedule is tentative and may be changed depending on the class progress.

■成績評価方法

Permanently: active participation in the discussion and evaluation of home assignments.
End-of-lecture: oral or written (depending on the number of students) open book exam.

40% on take home computer assignments (in groups of 2/3 students)
20% on participation in class discussion
40% on final exam

■成績評価基準

- I expect regular attendance, active contribution to the class discussion and the computer assignments;
- Competence in correctly resolving the computer assignments;
- Adequate understanding of the identifying assumptions of the methods and correct interpretation of results.

■履修上の注意（関連科目情報）

The course will use the statistical software Stata®. Knowledge of this software is not a pre-requisite, but will certainly facilitate your capacity of completing the computer assignments. Students who do not have experience with the software are expected to invest extra time after the lectures to get acquainted with the software.

■事前・事後学修

■学生へのメッセージ

■教科書

The course material will consist of copies of slides, scientific articles and a the software Stata®. The following articles provide an overview of the covered topics: - Blundell, R. and M. Costa Dias (2009), "Alternative Approaches to Evaluation in Empirical Microeconomics", The Journal of Human Resources, 44 (3), 565-640. - Imbens, G. W. and J. M. Wooldridge (2009), "Recent Developments in the Econometrics of Program Evaluation", The Journal of Economic Literature, 47 (1), 5-86. The first article is compulsory reading. The students are strongly encouraged to read the appropriate section prior to coming to classes. In addition, a detailed up-to-date reading list will be provided during the course.

■参考書・参考資料等

■授業における使用言語

英語

■キーワード

Microeconometrics, evaluation methods, causal inference, natural experiments, conditional independence unconfoundedness matching difference-in-differences instrumental variables regression discontinuity design.

■参考URL

担当教員一覧

教員	所属
奥西　孝至	経済学研究科