

Code: 42732

ECTS: 10

Degree	Year	Semester
Master in Economics and Business	1	2

Contact

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Language

English

Instructors

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Isabel Busom (Innovation Policies)

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Objectives**Evaluation Methodologies:**

The objective of this course is to familiarize students with the growing field of impact evaluation in economics. The course presents the main methodologies used to quantify the causal effect of policy interventions on outcomes, including randomized evaluations, difference-in-differences, regression discontinuity designs and natural experiments. These methodologies are assessed critically focusing on their weaknesses and strengths as well as focusing on their application in Stata. The course also offers an overview of the key debates in the design and implementation of a wide range of policies, and their impact on tackling poverty, improving quality and access to education, regeneration of deprived areas, fostering employment, salaries, among others.

Innovation Policies:

This course aims at providing tools to understand economic research on determinants and consequences of innovation, the economic grounds for innovation policy and its design, current innovation policies and their evaluation. The course will have a strong empirical focus: it intends to help you understand available methods for an evidence based innovation policy.

Upon completion of this course, you should be able to 1) understand the economic rationale for government involvement in innovation and science policy; 2) discuss what the impact of such involvement may be; 3) find and interpret sound empirical research on these issues, and 4) analyze current policies.

Infrastructure Policies:

This course studies the economic aspects of infrastructures using the tools of economic analysis in deciding the optimal level of infrastructure provision, the role of public and private sector in their provision and operation and shows the policy implications of the deregulation process that has taken place in infrastructure markets in recent years. The emphasis of the course is empirical, with detailed examples and case studies to show the economic consequences of alternative policy designs.

Skills

T1: Understanding academic research in the above areas.

T2: Contextualizing problems using formal models that allow a quantitative analysis.

T3: Arguing and writing in a precise, clear and concise manner reports on the proposed problems, in English.

T4: Using various statistical software to process data.

T5: Conduct empirical studies.

T6: Make oral presentations in English.

T7: Respect the ethical, social and environmental values.

Learning outcomes

E4.1: Demonstrate a proper understanding, and be able to apply, the principles of efficiency and equity in the areas mentioned above.

E4.2: Distinguish between situations in specific cases where markets are not efficient and those that do are, and between public interventions that lead to efficiency and those that do not.

E4.3: Demonstrate a proper understanding and be able to critically analyze economic studies of international organizations such as the OECD or the European Commission on economic policies in the above areas.

E4.4: Conduct empirical studies to assess the impact of various policies: identify existing data sources or designing data collection methods, application of statistical and econometric techniques that are appropriate for the evaluation of programs and policies, formulation of empirical strategies, proper interpretation of the results.

Contents

Evaluation Methodologies:

Methodology

- Key challenges of estimating the causal impact of public policies
- Randomized evaluations
- Difference-in-differences
- Propensity score matching
- Regression discontinuity designs
- Endogeneity and Instrumental Variables
- Natural and quasi-natural experiments

Example of Policy Interventions to be Reviewed

- Training programmes on earnings
- Active labour market policies on employment
- Educational programmes on school participation
- Conditional cash-transfers on poverty and education
- Community programmes on regeneration of deprived areas
- Microfinance on survival of entrepreneurs

Innovation Policies:

1. Introduction: questions, measurement and facts
2. Firms, R&D and Innovation
3. The nature of innovation: market failures
4. Innovation Policy: conceptual issues
5. Intellectual Property
6. Direct Support and Tax Incentives
7. Other instruments

Infrastructure Policies:

1. Introduction: economic importance of infrastructures

Economic impact of public infrastructures: demand and supply effects, net and spillover effects, crowding out effects and distributive effects.

2. Infrastructures and economic growth

Models used to investigate the relationship between infrastructure and economic activity: Input Output Models, Econometric Models.

3. Decision-making on infrastructure provision

Cost Benefit Analysis and beyond.

4. Models of public-private infrastructure management

The problem of monopoly in infrastructure provision and the range of possible solutions. Public provision of infrastructures and reasons for privatization.

5. Infrastructure provision with private contracts and concessions

Private contracts. Infrastructure concessions and the renegotiation problem. Public Private Partnerships (PPPs).

6. Infrastructure regulation and competition

Infrastructure regulation: rate of return & price cap. Vertical unbundling and the introduction of competition.

Teaching Methodology

The activities that will allow the students to learn the basic concepts included in this course are:

1. Theory lectures where the instructor will explain the main concepts.

The goal of this activity is to introduce the basic notions and guide the student learning

2. Problem Sets

In some subjects, a problem set which students will have to solve individually or in teams will be included in every unit. The goal of this activity is twofold. On one hand students will work with the theoretical concepts explained in the classroom, and on the other hand through this practice they will develop the necessary skills for problem solving.

3. Practice lectures

The aim of this activity is to comment on and solve any possible doubt that students may have had solving the problem assignment. This way they will be able to understand and correct any errors they may have had during this process.

4. Essay writing

In some subjects students will produce written essays on the topics proposed

5. Tutoring hours

Students will have some tutor hours in which the subject instructors will help them solve any doubts they may have.

Learning activities

Title (type activity)	Hours	Learning outcome
Type: Directed		
Lectures with ITC support	37.5	T7, E4.1 through E4.4
Resolution of exercises	37.5	T2, T7, E4.1 through E4.4
Type: Supervised		
Tutoring and monitoring work in progress. In-class presentations	62.5	T3, T4, T, T7, E4.1 through E4.4
Type: Self learning		
Study, Reading, Exercise solving, Essays writing,	112.5	T6, E4.1 through E4.4

Assessment criteria

1. The module consists of a number of different subjects or parts taught by different professors. The **final mark** for the module will consist of the average of the marks of each subject within the module.
 - The module is considered successfully passed if:
 - the mark for each subject within the module is higher than or equal to 3.0 (in a 0 to 10 scale), and
 - the **final mark** for that module is higher than or equal to 5.0 (in a 0 to 10 scale).
 - If the module is not successfully passed the MEBA coordinators will ask the student to re-take the exams for those subjects that, according to the coordinators and the professors opinions, may help the student to successfully pass the module. If the student passes the re-take exam he or she will obtain a mark of 5 for that subject, otherwise the previous grade will remain valid. The calendar for the re-retake exams will be announced along with the grades report
2. The mark -between 0 and 10- for each subject will be computed by each professor based on his or her own criteria and on the student's performance. As a general rule, 35% of the mark will correspond to the assessment of the continuous work of the student during the course, and 65% will consist of a comprehensive final examination. The duration and nature of the final examination is decided by each professor.
3. Final exams are compulsory. Re-take exams are only thought for those students having previously written a first exam and failed.

Assessment activities

Title	Weight	Learning outcome
Final exam	65%	
Exercises and essays	35%	

Bibliography

Evaluation Methodologies:

Basic Readings

1) Books:

- Angrist, J. and Pischke, J.-S., 2008, Mostly Harmless Econometrics An empiricist's Companion, Princeton University Press. <http://tinyurl.com/aatu7fe>
- Shenyang Guo and Mark W. Fraser, 2010, Propensity Score Analysis, Statistical Methods and Applications, Sage Editorial.

Copies of chapter will be provided.

2) Article Reviews:

- Dufló, E., Glennerster, R. and Kremer, M. (2007) Using Randomization in Development Economics Research: A Toolkit, CEPR Discussion Paper No. 6059. <http://tiny.cc/13gkgw>
- Ravallion, Martin. 2008. "Evaluating Anti-poverty Programs." In Handbook of Development Economics, vol. 4, ed. T. Paul Schultz and John Strauss, 3787– 846. Amsterdam: North-Holland. <http://tinyurl.com/bjt7485>

Innovation Policies:

- Bronwyn H. Hall and Nathan Rosenberg (ed.), Handbook of the Economics of Innovation, Elsevier, North Holland 2010.
- Christine Greenhalgh and Mark Rogers, Innovation, Intellectual Property and Economic Growth, Princeton University Press 2010.
- Suzanne Scotchmer, Innovation and Incentives, MIT Press, 2004.
- OECD (2013) "Supporting Investment in Knowledge Capital, Growth and Innovation", OECD Publishing , Publication date: 10 Oct 2013

In addition, empirical research papers will be provided and discussed during the sessions.

Infrastructure Policies:

- Aschauer, D. A. Is public infrastructure productive? *Journal of Monetary Economics* 23, 177-200, 1989.
- Engel, E., R. Fischer and A. Galetovic, [The economics of infrastructure finance: Public-private partnerships versus public provision](#), EIB Papers, 15 (1), 2010.
- Gómez-Ibáñez, J. A., Regulating infrastructure. Monopoly, contracts and discretion, Harvard University Press, 2003.
- Gramlich, E.M. Infrastructure investment: A review essay. *Journal of Economic Literature*, Vol. XXXII, 1176-1196, 1994.
- Guasch, J.L. Granting and Renegotiating Infrastructure Concessions: Doing it Right, The World Bank, 2004.
- Kessides, I. N., Reforming infrastructure : privatization, regulation, and competition, Oxford University Press – The World Bank, 2004.
- Newbery, D. M., Privatization, restructuring and regulation of network utilities, MIT Press, 2001.
- Romp W. and de Haan, J., Public Capital and Economic Growth: A Critical Survey, *Perspektiven der Wirtschaftspolitik* 8 (Special Issue): 6–52, 2007.
- Straub, S., Infrastructure and Development: A Critical Appraisal of the Macro-level Literature, *The Journal of Development Studies*, vol. 47(5), 683-708, 2011.
- World Bank, World Development Report 1994: Infrastructure For Development. Oxford University Press, New York. Overview and Chapter 1, 1-36, 1994.