

**Public Policies I**

Code: 42732  
ECTS Credits: 10

Degree	Type	Year	Semester
4310025 Economics and Business Administration	OT	0	2

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

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**Use of Languages**

Principal working language: english (eng)

**Other comments on languages**

This master is taught and evaluated entirely in English.

**Teachers**

Xavier Ramos Morilla  
Oriol Roca Sagalés  
Javier Asensio Ruiz de Alda

**External teachers**

Jorge Andrés Vélez Ospina

**Prerequisites**

Fundamentals of Economics and Business I  
Fundamentals of Economics and Business II

**Objectives and Contextualisation**

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 socially relevant issues such as tackling poverty, improving quality and access to education, regeneration of deprived areas, fostering employment.

## Innovation Policies:

The course introduces students to the topic of innovation as a major force for economic growth and innovation policies aimed at promoting technological development and innovation. The goal of the course is to familiarize students with government policies to support innovation, to guide them through the empirical research on these topics, and let them explore interesting research questions on their own.

During the course, we study some general questions on innovation activities of firms, such as the link between R&D, innovation, and productivity, and the ways of organizing for innovation, in particular, knowledge sourcing strategies; we then discuss how government intervention, more specifically, patent protection, government funded R&D, and trade reforms, influences firms' innovation output. We also review and discuss the empirical research on these topics.

By completing this course the students should be able to: 1) understand relevant determinants and performance implications of firm innovation activities; 2) explain and discuss the public policies for stimulating innovation and their underlying rationale; 3) assess the impact of these policies using methods from the empirical studies.

## 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.

## Competences

- Argue the case for and write a precise, clear and concise report of the problems presented in the English language.
- Carry out empirical studies for impact assessments of different policies: Identify existing data sources or design a data collection, application of statistical and econometric techniques that are appropriate for programme and policy evaluation, formulation of empirical strategies and the appropriate interpretation of the results.
- Carry out empirical studies.
- Carry out oral presentations in the English language.
- Contextualise economic problems through the use of formal models that enable quantitative analysis.
- Demonstrate an understanding and carry out a critical analysis of economic studies of the economic policies of international organisations such as the OECD or the European Commission in the areas indicated.
- Demonstrate an understanding of apply the main economic principles of efficiency and equity in the different areas mentioned above.
- Identify specific cases among situations in which the markets are not efficient and those in which they are, as well as public intervention that leads to efficiency and that which does not.
- Respect ethical, social and environmental values.
- Understand academic research in the areas indicated.
- Use different statistical programs to process data.

## Learning Outcomes

1. Argue the case for and write a precise, clear and concise report of the problems presented in the English language.
2. Carry out empirical studies for impact assessments of different policies: Identify existing data sources or design a data collection, application of statistical and econometric techniques that are appropriate for programme and policy evaluation, formulation of empirical strategies and the appropriate interpretation of the results.

3. Carry out empirical studies.
4. Carry out oral presentations in the English language.
5. Contextualise economic problems through the use of formal models that enable quantitative analysis.
6. Demonstrate an understanding and carry out a critical analysis of economic studies of the economic policies of international organisations such as the OECD or the European Commission in the areas indicated.
7. Demonstrate an understanding of apply the main economic principles of efficiency and equity in the different areas mentioned above.
8. Identify specific cases among situations in which the markets are not efficient and those in which they are, as well as public intervention that leads to efficiency and that which does not.
9. Respect ethical, social and environmental values.
10. Understand academic research in the areas indicated.
11. Use different statistical programs to process data.

## **Content**

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

Examples 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. What is innovation? Why do we care about innovation?
2. Innovation. How do we measure it? And what are the drivers?
3. Innovation Policies: Why governments should care about innovation?
4. Innovation Policies: the measures. How?
5. Innovation policies: Evaluation. How effective?
6. Government financial support for R&D and tax credits
7. Intellectual property rights (IPRs)
6. Further topics on innovation policies

**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. Regulation of liberalized infrastructures.

## **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.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Lectures with ITC support	37.5	1.5	1, 10, 5, 7, 6, 8, 2, 3, 9, 11
Resolution of exercises	37.5	1.5	1, 10, 5, 7, 6, 8, 2, 3, 9, 11
Type: Supervised			
Tutoring and monitoring work in progress. In-class presentations	62.5	2.5	1, 10, 5, 7, 6, 8, 2, 3, 4, 9, 11
Type: Autonomous			
Study, Reading, Exercise solving, Essays writing,	79.5	3.18	10, 5, 7, 6, 8, 2, 3, 9, 11

## Assessment

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).

IMPORTANT: In order to pass each subject, students must attend at least 80% of the lectures (special cases, with appropriate justification, will be considered individually by the professors together with MEBA coordinators).

- 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
1. 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.
1. Final exams are compulsory. Re-take exams are only thought for those students having previously written a first exam and failed.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Exercises and essays	35%	24	0.96	1, 10, 5, 7, 6, 8, 2, 3, 4, 9, 11
Topic Exam II: Innovation Policies	21.66%	3	0.12	1, 10, 5, 6, 9, 11

Topic Exam III: Infrastructure Policies	21.66%	3	0.12	10, 5, 2, 9, 11
Topic Exam: Evaluation Methodologies	21.66%	3	0.12	1, 10, 5, 7, 8, 9, 11

## Bibliography

Evaluation Methodologies:

Basic Readings

1) Books:

- (main) Khandker, Shahidur R.; Koolwal, Gayatri B.; Samad, Hussain A.. 2010. *Handbook on Impact Evaluation : Quantitative Methods and Practices*. World Bank.<https://openknowledge.worldbank.org/handle/10986/2693> License: CC BY 3.0 IGO.
- (optional) Angrist, J. and Pischke, J.-S, 2008, *Mostly Harmless Econometrics An empiricist's Companion*, Princeton University Press.
- (optional) Angrist, J. and Pischke, J.-S, 2014, *Mastering Metrics: The Path from Cause to Effect*, Princeton University Press.
- (optional) Shenyang Guo and Mark W. Fraser, 2010, *Propensity Score Analysis, Statistical Methods and Applications*, Sage Editorial.

2) Article Reviews:

- Duflo, E., Glennerster, R. and Kremer, M. (2007) Using Randomization in Development Economics Research: A Toolkit, CEPR Discussion Paper No. 6059.
- Imbens, G., (2015) Matching Methods in Practice: Three Examples, *Journal of Human Resources*, 50(2). <http://www.nber.org/papers/w19959>
- Imbens, G., Lemieux, T. (2007) Regression Discontinuity Designs: A Guide to Practice, NBER technical working paper 337
- Lee, D. S., and Lemieux, T. (2009) Regression Discontinuity Designs in Economics, *Journal of Economic Literature*, 48(2).
- 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.

3) Additional suggested references:

- Allegretto, S.A., Dube, A. and Reich, M. (2011) Do Minimum Wages Really Reduce Teen Employment? Accounting for Heterogeneity and Selectivity in State Panel Data, *Industrial Relations*, 50(2).
- Angrist, J., Bettinger, E., Bloom, E., King, E. and Kremer, M. (2002) Vouchers for Private Schooling in Colombia: Evidence from a Randomized Natural Experiment, *American Economic Review*, 92(5).
- Angrist, J., Bettinger, E. and Kremer, M. (2006). Long-Term Educational Consequences of Secondary School Vouchers: Evidence from Administrative Records in Colombia, *American Economic Review*, 96(3): 847-862.
- Angrist, J., Chin, A. and Godoy, R. (2008). Is Spanish-only schooling responsible for the Puerto Rican language gap?, *Journal of Development Economics*, 85(1-2): 105-128.
- Angrist, Joshua, and Victor Lavy (2001). Does Teacher Training Affect Pupil Learning? Evidence from Matched Comparisons in Jerusalem Public Schools, *Journal of Labor Economics*, 19(2): 343-369.
- Angrist, Joshua, Philip Oreopoulos, and Tyler Williams (2014). When Opportunity Knocks, Who Answers? New Evidence on College Achievement Awards, *Journal of Human Resources*, 49(3): 572-610.
- Bandiera, O., Barankay, I and Rasul, I. (2011) Field experiments with firms, *Journal of Economic Perspectives*, 25(2).
- Behrman, J., Sengupta, P. and Todd, P. (2005) Progressing through Progresca: An Impact Assessment of a School Subsidy Experiment in Mexico. *Economic Development and Cultural Change*, 54(1).
- Dearden, L., Emmerson, C., Frayne, C. and Meghir, C. (2009) Conditional Cash Transfers and School Dropout Rates *The Journal of Human Resources*, 44(4).

- Johnson P. (2011) New Policies, Like New Medicines, Should First Be Put to the Test, *Guardian*.
- Kremer, M. (2003) Randomized Evaluations of Educational Programs in Developing Countries: Some Lessons, *American Economic Review*, 93(2).
- Malde, B. (2008) The Randomised Evaluation Revolution in Development Economics, *Economic Review*.
- Meyer, B. (1994) Natural and Quasi-experiments in Economics, NBER Technical Working Paper 170.
- LaLonde, R. J. (1986) Evaluating the Econometric Evaluations of Training Programs with Experimental Data, *American Economic Review*, 76(4).
- Love, T.E. (2003) Propensity Scores: What Do They Do, How Should I Use Them and Why Should I Care? ASA Cleveland Chapter.
- Ludwig, J. and Miller, D. L. (2007) Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design, *Quarterly Journal of Economics*, 122(1).
- Rice, P. (2010) Minimum Wages and Schooling: Evidence from the UK's Introduction of a National Minimum Wage, University of Oxford, Economics Department Working Paper 482.
- Sianesi, B. (2004) An Evaluation of the Swedish System of Active Labour Market Programmes in the 1990s, *Review of Economics and Statistics*, 86(1).
- Todd P.E. and Wolpin K. I. (2006) Assessing the Impact of a School Subsidy Program in Mexico: Using a Social Experiment to Validate a Dynamic Behavioral Model of Child Schooling and Fertility, *American Economic Review*, 96(5).

#### 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.
- OECD (2013) "Supporting Investment in Knowledge Capital, Growth and Innovation", OECD Publishing, Publication date: 10 Oct 2013

The detailed reading list with the empirical papers for presentations will be provided during the first session.

#### Infrastructure Policies:

- Aschauer, D. A. Is public infrastructure productive? *Journal of Monetary Economics* 23, 177-200, 1989.
- Bom, P.D. and Ligthart, J.E. What have we learned from three decades of research on the productivity of public capital?, *Journal of Economic Surveys*, 28 (5), 889-916, 2014.
- 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.