

Degree	Type	Year
Economic Analysis	OT	2

Contact

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Teachers

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Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

No specific prerequisites.

Objectives and Contextualisation

This module covers advanced theoretical models that are in the frontier of modern microeconomic analysis. Using rigorous mathematical analysis, this module provides the student with frontier knowledge in contract design and game theory, as well as in different applications. The models seen in this module are applied in novel research in Microeconomics and are instrumental to obtaining public policy implications. The student can acquire this knowledge from the fields of economics of information, industrial organization, contracts, incentives and behaviour, corporate finance, health economics, development economics, microeconometrics, public economics, labor economics, asset pricing, political economics and experimental economics.

Competences

- Apply the methodology of research, techniques and specific advanced resources to research and produce innovative results in a specific area of specialisation
- Capacity to articulate basic economic theory, analytically deriving them from mathematical reasoning
- Conceptually analyse a specific economic problem using advanced analytical tools
- Demonstrate an open , innovative and analytical attitude towards research questions
- Design, plan and carry out economic research
- Express recommendations about economic policy at macro and micro levels
- Make independent judgements and defend them dialectically
- Possess and understand knowledge that provides a basis or opportunity for originality in the development and/or application of ideas, often in a research context
- Search for information in the scientific literature using the appropriate channels and integrate the information to propose and contextualise a research topic
- Student should possess the learning skills that enable them to continue studying in a way that is largely student led or independent
- Students should be able to integrate knowledge and face the complexity of making judgements based on information that may be incomplete or limited and includes reflections on the social and ethical responsibilities associated with the application of their knowledge and judgements
- Students should know how to apply the knowledge they have acquired and their capacity for problem solving in new or little known fields within wider (or multidisciplinary) contexts related to the area of study
- Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously

Learning Outcomes

1. Analyse games theory to describe topics of industrial organisation
2. Apply the methodology of research, techniques and specific advanced resources to research and produce innovative results in a specific area of specialisation
3. Demonstrate an open , innovative and analytical attitude towards research questions
4. Describe decision-making in the most complex strategic contexts, including the relationship between the different economic agents and the information structure of the economic context
5. Distinguish between different principal-agent models
6. Make independent judgements and defend them dialectically
7. Possess and understand knowledge that provides a basis or opportunity for originality in the development and/or application of ideas, often in a research context
8. Recognise the deficiencies in the existing models in the field of information economics and industrial organisation and propose a strategy to be followed to shift the borders of knowledge.
9. Search for information in the scientific literature using the appropriate channels and integrate the information to propose and contextualise a research topic
10. Student should possess the learning skills that enable them to continue studying in a way that is largely student led or independent
11. Students should be able to integrate knowledge and face the complexity of making judgements based on information that may be incomplete or limited and includes reflections on the social and ethical responsibilities associated with the application of their knowledge and judgements
12. Students should know how to apply the knowledge they have acquired and their capacity for problem solving in new or little known fields within wider (or multidisciplinary) contexts related to the area of study
13. Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously
14. Use the principal-agent models and notions of games theory to draw conclusions about the appropriateness of certain policies

Content

- Behavioural Economics
- Corporate Finance
- Data
- Economics of Information
- Energy
- Industrial Organisation
- Industrial and Energy Economics
- Networks
- Public Economics

For a detailed description of the content of topics in this module go to <https://sites.google.com/view/idea-program/master-program>.

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Theory classes	75	3	1, 2, 9, 3, 4, 5, 6, 12, 13, 11, 10, 8, 7, 14
Type: Supervised			
Practice classes, problems sets, tutorials	25	1	1, 2, 9, 3, 4, 5, 6, 12, 13, 11, 10, 8, 7, 14
Type: Autonomous			
Learning based on problem solving, personal study, study groups	150	6	1, 2, 9, 3, 4, 5, 6, 12, 13, 11, 10, 8, 7, 14

The course will consist of sessions where the instructor presents the material, and sessions specifically dedicated to problem solving. Students are encouraged to form study groups to discuss assignments and readings.

The proposed teaching methodology may undergo some modifications according to the restrictions imposed by the health authorities on on-campus courses.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
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Class Attendance and Problem sets and assignments	22%	0	0	1, 2, 9, 3, 4, 5, 6, 12, 13, 11, 10, 8, 7, 14
Midterm Exam	26%	0	0	1, 2, 9, 3, 4, 5, 6, 12, 13, 11, 10, 8, 7, 14
Midterm Exam	26%	0	0	1, 2, 9, 3, 4, 5, 6, 12, 13, 11, 10, 8, 7, 14
Midterm Exam	26%	0	0	1, 2, 9, 3, 4, 5, 6, 12, 13, 11, 10, 8, 7, 14

This modul does not contemplate an evaluation from a single comprehensive exam

Midterm Exam	26%
Midterm Exam	26%
Midterm Exam	26%
Problem sets, assignments & Class attendance and active participation	22%

The proposed evaluation activities may undergo some changes according to the restrictions imposed by the health authorities on on-campus courses.

In this course, the use of Artificial Intelligence (AI) technologies is not permitted in any of its phases. Any work that includes fragments generated with AI will be considered a breach of academic honesty and may result in a partial or total penalty to the activity's grade, or more severe sanctions in serious cases.

Bibliography

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Carvalho, J.-P. (2013) "Veiling" Quarterly Journal of Economics 128(1); 337-370

Caselli, F. and W. J. Coleman, II, On The Theory of Ethnic Conflict, Journal of the European Economic Association, Volume 11, Issue suppl_1, 1 January 2013, Pages 161-192

Davis P. and E. Garcés, Quantitative Techniques for Competition and Antitrust Analysis, Princeton University Press

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Newman, M.. Networks: an introduction. Oxford University Press, 2009.

Shum, M. Econometric Models of Industrial Organization, World Scientific

Tirole, J. (2006), "The Theory of Corporate Finance," Princeton University Press.

Tirole, J. The Theory of Industrial Organization, The MIT Press

Toke, A. , F. Albornoz and E. Hauk (2021) "Foreign influence in domestic policy", Journal of Economic Literature 59(2):426-87

Víctor Aguirregabiria's notes (University of Toronto, Department of Economics)

Wooldridge, J. M. (2002), Econometric Analysis of Cross Section and Panel Data, MIT Press

Additional references will be provided during the course.

Software

- Matlab
- R
- Python
- Stata

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(PLABm) Practical laboratories (master)	1	English	annual	morning-mixed
(PLABm) Practical laboratories (master)	2	English	annual	morning-mixed
(PLABm) Practical laboratories (master)	3	English	annual	morning-mixed

