NOVA SCHOOL OF BUSINESS & ECONOMICS

COURSE INSTRUCTOR

Paulo Miguel Del-negro Pamplona Corte-real

SHORT BIOGRAPHY

Lic. Economia (Universidade Nova de Lisboa); M.A. in Economics (Harvard University); Ph.D. in Economics (Harvard University)

INSTITUTIONAL EMAIL

ppc@novasbe.pt

OFFICE HOURS

Office Hours: TBA

Scientific Area/Área Científica:	Economia		
Frequency/Periodicidade:	Semestral		
Number of Contact Hours/ Número Horas Contacto:			
(T) Teóricas/Theoretical:	0000:00	(TP) Teórico-Práticas/Theoretical-Practical:	0036:00
(P) Práticas/Practical:	0000:00	(OT) Orientação Tutorial/Tutorial Orientation:	0010:00
(PL) Práticas Laboratoriais/Pratical Labs:	0000:00	(S) Seminário/Seminar:	0000:00
Horas Dedicadas/Dedicated Hours:	0150:00		
Total Horas/Total Hours:	0196:00		

PREREQUISITE(S) / PRÉ-REQUISITO(S)

NA

COURSE UNIT AIMS

The course covers:

(i) general equilibrium and welfare analysis

(ii) an overview of the main instances of market failure, including a game theoretic analysis of asymmetric information

(iii) mechanism design and social choice

COURSE UNIT CONTENT

1 General Equilibrium

1-1 Existence > MWG 17

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COURSE SYLLABUS

270101 - Microeconomics II, 7 ECTS Spring Semester 202021

- 1-2 Local Uniqueness > MWG 17
- 1-3 Optimality > MWG 16
- 1-4 Core properties > MWG 18
- 1-5 Equilibrium under uncertainty > MWG 19
- 2 Market Failure
- 2-1 Market Power > MWG 12, FT 5.1
- 2-2 Externalities and Public Goods > MWG 11
- 2-3 Adverse selection, signaling and screening > MWG 13; FT 8
- 2-4 The Principal-Agent Problem > MWG 14
- 2-4-1 Moral hazard
- 2-4-2 Monopolistic screening
- 3 Welfare Economics and Incentives
- 3-1 Mechanism Design > MWG 23, FT 7
- 3-1-1 The Revelation Principle
- 3-1-2 Implementability
- 3-1-3 Optimality
- 3-1-4 Multi-agent case
- 3-1-5 Dominant-Strategy Implementation ¿ the Groves-Clarke Mechanism
- 3-1-6 Bayesian Implementation ¿ the AGV Mechanism
- 3-1-7 Bilateral trade ¿ Myerson-Satterthwaite Theorem
- 3-1-8 Auctions
- 3-2 Social Choice > MWG 21
- 3-2-1 Arrow Theorem
- 3-2-2 May¿s Theorem
- 3-2-3 Gibbard-Satterthwaite Theorem

LEARNING OBJECTIVES

1. Knowledge and Understanding

-Understand the welfare implications of market equilibrium;

-Identify economic situations where information is asymmetric, analyze their consequences and compare possible policy measures;

- -Understand the potential conflict between optimality from the individual and from the social viewpoints;
- -Understand implementability problems and the role of incentives;

2. Subject-Specific Skills

-Master general equilibrium analysis in different economic environments (pure exchange, production and uncertainty);

-Prove and understand the implications of the main welfare results associated with market equilibrium;

-Identify market failure in different contexts, including externalities, public goods, market power and asymmetric information, and compare possible solutions considering strategic interaction;

-Understand the implications of different implementability concepts in mechanism design;

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-Design optimal mechanisms under asymmetric information;

-Understand the founding results of social choice theory;

3. General Skills

-Develop abstract reasoning;

-Structure and present formal proofs;

-Understand the logical connections between assumptions and results, as well as the consequences of relaxing assumptions;

-Realize that diverse optimality criteria will lead to different recommendations;

-Model actual situations and make predictions using abstract tools;

-Critically appraise the theory and its applicability.

DEMONSTRATION OF THE COHERENCE OF THE SYLLABUS WITH COURSE UNIT AIMS

The course unit aims correspond to the three main chapters identified in the syllabus.

The first chapter is devoted to understanding general equilibrium in different economic environments and its welfare implications. The second chapter covers different contexts of market failure, from the presence of externalities and public-goods to market power, including a section devoted to game-theoretic analysis of asymmetric information. The last chapter is devoted to implementability and incentives, the design of optimal mechanisms, and the foundations of social choice theory.

TEACHING AND LEARNING METHODS

Each week there will be one lecture (3 hours). Students are expected to attend the lectures and to follow the discussion and proofs of the main results, as well as applications to different economic settings. Students are also expected to solve problem sets that require them to look for relevant references, in addition to applying the concepts, results and methodologies seen in class.

DEMONSTRATION OF THE COHERENCE OF THE TEACHING METHODS WITH COURSE LEARNING OBJECTIVES

The lectures will cover the main topics of the course. Students are expected to follow and actively participate in the discussion of concepts and applications. For each thematic chapter, a problem set will elicit independent work from students to complement this learning process.

DEMONSTRAÇÃO DA COERÊNCIA DAS METODOLOGIAS DE ENSINO COM OS OBJETIVOS DE APRENDIZAGEM DA UNIDADE CURRICULAR [PT]

ASSESSMENT

Grade = 0.3*Problem Sets + 0.35*Midterm + 0.35*Final Exam <u>3 Problem Sets</u> Midterm: (Tentative date: TBD) Final Exam: (Tentative date: TBD)

BIBLIOGRAPHY

Mas-Colell A, Whinston MD and Green JR (1995) Microeconomic Theory. Oxford University Press, New York.

Fudenberg D and Tirole J (1996) Game Theory. The MIT Press, Cambridge, MA.

ADDITIONAL INFORMATION

Course Impact Relation

Throughout the teaching period, the course equips students with foundational skills that will enable them to develop further understanding in future courses, directly related with the SDG Agenda.



COURSE SYLLABUS 270101 - Microeconomics II, 7 ECTS Spring Semester 202021

