

Industrial Organization

Course Number: E/A/M: 20852
IBE: 21228

Course Teacher: Christian Michel (christian.michel@upf.edu)

Course Dates:

Lectures:

Group 1: Monday and Tuesday, 9.00-10.30, Room 40.152

Group 2: Monday and Tuesday, 11.00-12.30, Room 40.146

Exercise classes: Weeks 4-9. Please look at your individual timetables for your specific times and class teachers.

Office Hour:

Tuesday, 2pm-3pm, Office 20.1E52. Please send me a quick email if you intend to come to the office hour.

Course Objective:

The main objective of this course is to familiarize you with the core concepts of theoretical Industrial Organization. From a business viewpoint, this gives you a game-theoretic foundation to business strategy. From an economics viewpoint, this will give you the foundations necessary to make a broad industry analysis including market power considerations.

In particular, the course first introduces basic game-theoretic concepts and applies them to several settings to explore market power under imperfect competition. Later in the course, information asymmetries and the resulting optimal firm strategies will be explored. The course then proceeds to the analysis of network industries, which have gained importance due to many Internet businesses with network characteristics. The end of the course focuses on policy topics regarding competition policy and innovation.

Prerequisites: Introduction to Microeconomics

Textbooks:

Belleflamme, P., & Peitz, M. (2010). *Industrial Organization: Markets and Strategies*. Cambridge University Press.
Henceforth: BP.

Tirole, J. (1988). *The Theory of Industrial Organization: Jean Tirole*. MIT press.

Osborne, Martin J. *An introduction to game theory*. Vol. 3. No. 3. New York: Oxford University Press, 2004.

No textbook is explicitly required for the course. However, the course and the lecture slides will go relatively close along the lines of the Belleflamme and Peitz book. This is the main material you can access for further reading.

The Tirole book contains some of the basic concepts with a slightly different approach, even if some of the material is more advanced, and the newer material not included. I recommend it to you if you

want to study something from angle, however, the Belleflamme and Peitz book is closer to the course material.

If you like to get a more detailed understanding of the game theory concepts, the Osborne book gives a nice introduction with easy to digest examples.

Outline of Course Schedule (subject to change, not all sections will be devoted the same amount of time):

PART I: Preliminary Issues and Basic Tools in Industrial Organization

- 1: Introduction
Literature: BP, Ch.1
- 2: Review on perfect competition
Literature: BP, Ch. 2.1, 2.2.1
- 3: Review on game theory
Literature: BP, Ch. A.1, A.2

PART II: Basic Sources of Market Power

- 4: Monopoly
Literature: BP, Ch. 2.2.2, 2.2.3, 8.1, 8.2, 9.1, 9.2, 10.1, 10.2
- 5: Static oligopoly
Literature: BP, Ch. 3.1, 3.2, 3.3.1, 3.3.3, 3.4, 4.1, 7.2.1
- 6: Dynamic oligopoly and collusion
Literature: BP, Ch. 14
- 7: Product differentiation
Literature: BP, Ch. 3.1.3, 3.1.4, 3.3.2, 3.4, 4.1.1, 5.1, 5.2, 5.3.1

PART III: Information, Pricing Strategies, and Market Segmentation

- 8: Information
Literature: BP, Ch. 12.1.1, 13.1.1, 13.2.1, 7.1.1, 7.1.2
- 9: Advertising
Literature: BP, Ch. 6, 12.2.1
- 10: Network effects
Literature: BP, Ch. 20.1, 20.2, 20.3.1

PART IV: Theory of Competition Policy and Innovation

- 11: Merger, entry and market structure
Literature: BP, Ch. 2.3, 4.2.1, 4.2.2, 15.1, 15.2, 15.3, 16.1, 16.2, 16.3.1, 16.4
- 12: Vertical relations
Literature: BP, Ch. 17.1, 17.2, 17.4

- 13: Patents and R&D
Literature: BP, Ch. 18, 19.1, 19.2
- 14: Revision lecture

Course Evaluation: During the course there will be six problem sets that have to be handed in electronically before the exercise classes. Attendance of the exercise classes is mandatory. You are allowed to miss one of the six exercise classes without justification. But please also tell the class teacher via email before in case you will not come to one class. However, you still have to hand in the problem set before, even if you miss the class. The class teachers will evaluate your participation in the exercise classes, and grade your problem sets. The final exercise class grade accounts for 40% of your final grade. Half of this grade (overall 20%) consists of the participation grade. The other half of this grade consists of the average problem set grade. I might give a bonus on this grade for good participation in the lectures. The other 60% of the final grade will be attributed to the final exam grade. To pass the course, however, it is a necessary requirement to get at least 5 out of 10 points in the final exam and to pass the participation criterion for the exercise classes.

Acknowledgments: I would like to especially thank Nicolas Schutz for sharing his lecture slides with me. Of course, all errors are mine.

Competencias: G1, G4, G7, G9, G20, G11 G13, G14, G18, G19 ,E1

G1. Comprender e interpretar de manera pertinente y razonada textos escritos de nivel y carácter académicos.

G4. Ser capaz de utilizar la lengua inglesa en todos los ámbitos laborales (leer, escribir y hablar en un registro alto)

G7. Desarrollar la capacidad de razonamiento autónomo con distancia crítica en temas o cuestiones controvertidas.

G9. Tener consolidados hábitos de autodisciplina, autoexigencia y rigor en la realización del trabajo académico, así como en la organización y en su correcta temporalización.

G11. Ser capaz de aplicar con flexibilidad y creatividad los conocimientos adquiridos y de adaptarlos a contextos y situaciones nuevas

G13. Demostrar un nivel de conocimientos suficientes para la actuación profesional

G14. Conocer los diferentes contextos en los que trabaja: la coyuntura económica, el sector, el mercado, la empresa y el departamento

G18. Aplicar los conocimientos y procedimientos relevantes a un abanico de situaciones complejas

G19. Identificar los factores claves de un problema

G20. Demostrar una aproximación crítica ante situaciones diversas

E1 Análisis de modelos del comercio internacional