

STRATEGIC BEHAVIOUR IN BUSINESS AND ECONOMICS

Economics and Politics

Course contact hours: 45

Recommended credits: 6 ECTS – 3 US

OBJECTIVES

This course is designed as a brief introduction to individual decision making. Its main objective is to provide the students with decision theory and game theory techniques that can be useful to face and understand, using logical reasoning, strategic situations that appear not only in business environments, but also in everyday life.

CONTENTS

1. Introduction

What are we going to do?
What do you know? Videos and games

2. Introduction to Individual Decision Making

- 2.1** Basic concepts: Budget constraint, preferences, utility and optimal choice
- 2.2** Choice under uncertainty: Lotteries and risk aversion
- 2.3** Value of information: Decision trees and backward induction

3. Basic Topics in Game Theory

- 3.1** What is a game?
- 3.2** Types of games: Complete and incomplete information
- 3.3** Example of games situations
- 3.4** Solution concepts

4. Static Games of Complete Information

- 4.1** Pure strategies
- 4.2** Mixed strategies
- 4.3** The Prisoner's dilemma

5. Dynamic Games of Complete Information

- 5.1** Equilibrium
- 5.2** Strategic moves
- 5.3** Repeated games

6. New Alternatives

- 6.1** Behavior Economics
- 6.2** Bounded Rationality
- 6.3** NeuroEconomics

ASSESSMENT CRITERIA

The evaluation of this course is composed by three parts: assignments, a project and 2 midterm exam. The final mark (between zero and ten) will be based on the scores of these activities according to the following table:

Assignments	Project	Midterm Exam
20,00%	30,00%	25% each one

A final exam will be considered only as an option for those students who want to improve their grade.

1) Assignments

During the course students have to do four assignments. Each assignment has some exercises. Assignments must be done individually, but students can work in group during the practical classes. For each assignment there is a due date. Assignments must be handed in at the beginning of the class on the corresponding due date. Answers will be discussed in class.

2) Project

The project consists of an analysis of one real world case using the tools learned in class. Projects will be done individually or in pairs.

3) Midterms

There will be one midterm exam after the decision theory part and another one after the game theory part. Each one of them consists of exercises similar to those we have done in class.

BIBLIOGRAPHY

The material and the information covered in class is enough to pass the course. However, you can read the following books to obtain additional information:

- Varian, H. R. (2010) Intermediate Microeconomics. A Modern Approach, W.W. Norton & Company
- Dixit, A. K. and Nalebuff, B. J. (1991) Thinking Strategically: The Competitive Edge in Business, Politics and Everyday Life, W.W. Norton & Company
- Dixit, A. K. and Nalebuff, B. J. (2008) The Art of Strategy: A Game Theorist's Guide to Success in Business and Life, W.W. Norton & Company