

Economics of Information (20854)

Degree/study: Economía and ADE

Course: third

Term: third

Number of ECTS credits: 5 credits

Hours of student's dedication: 125 hours

Language or languages of instruction: english/spanish

Professor: Joan de Martí

1. Presentation of the subject

This course is divided into two parts. The first one is an introduction to decision-making under uncertainty and risk-sharing. The second one is an introduction to the study of models with asymmetric information: moral hazard, adverse selection, and signaling.

2. Competences to be attained

G1, G2, G9, G10, G11

The student will understand the relations between economic agents when the available information is imperfect and asymmetric.

3. Contents

3.1 Decision-making under Uncertainty

3.2 Risk

3.3 Moral Hazard

3.4 Adverse Selection

3.5 Signaling

4. Assessment

There are going to be some problem sets. Their average grade will count a 10% of the final grade. These problem sets can be done by groups of at most 3 students. It is acceptable that, without justification, one of them is not handed-in.

Furthermore, there are going to be some extra problems posed during the course that are not compulsory and that can only be resolved individually. The theory instructor can ask for details about the solution presented. These will count a 5% of the final grade and some effort here is highly recommended to aspire to the Honors grade for the course.

There are also going to be short exams at the beginning of some of the seminar sessions. The average grade from these exams will count a 15% if the student has attended regularly the seminar sessions (any absence has to be justified). Otherwise, the grade for this 15% will be 0.

Final exam (date: June 17): it will cover the whole course. This exam will count 70% of the final grade.

To subsume, the grade from June's evaluation process will be given by

$$\text{Final Grade} = 0.1 * \text{PbmSets} + 0.05 * \text{ExtraProblems} + 0.15 * \text{ShortExams} + 0.7 * \text{June_Exam}$$

Exam in July (date to be determined): for those who don't pass the course in June (those that pass the course in June are not allowed to take July's exam). The final grade when taking this exam in July will be given by the maximum between

$$0.1 * \text{PbmSets} + 0.05 * \text{ExtraProblems} + 0.15 * \text{ShortExams} + 0.7 * \text{July_Exam}$$

and the grade of the exam of July alone.

A grade will be assigned, according to the formulas described above, to anybody who has not renounced to the evaluation before finishing the teaching period and who has handed-in, at least, the compulsory problem sets (allowing, as aforementioned, to miss one).

I will only count as Not Attended (No Presentat/No Presentado) those who have neither handed-in the problems sets nor attended to seminars (and, therefore, have not done the mid-term exams) and who decide to not attend the exam in June. In such case, the student cannot attend the exam in July.

Reminder: there is no september exam anymore.

5. Bibliography and teaching resources

5.1. Basic bibliography

- I. Macho-Staedler & David Pérez-Castrillo, *Introducción a la Economía de la Información*, Editorial Ariel

There is a translation available:

- *An Introduction to the Economics of Information*, Oxford University Press

The instructor will also provide lecture notes and problem sets during the course.

5.2. Additional bibliography

- Louis Eeckhoudt, Christian Gollier and Harris Schlesinger, *Economic and Financial Decisions Under Risk*, Princeton University Press

5.3. Teaching resources

Articles related to the topics covered in class taken from press, specialized journals, and blogs.

6. Methodology

Lectures will focus on presenting the theoretical basis of the course. Seminar sessions will be devoted to solve problems. This will help to consolidate concepts, and deepen into alternatives, extensions, or critiques to the ideas and models presented in the lectures.

7. Activities Planning

Week 1: Decision-making under Uncertainty (Theory)

Week 2: Risk: Definitions and Measures (Theory)

Week 3: Applications: Insurance, Investment; Markets and Risk-Sharing (Theory)

Week 4: Markets and Risk ; Moral hazard (Theory)

Seminar 1

Week 5: Moral Hazard (Theory)

Seminar 2

Week 6: Moral Hazard ; Adverse Selection (Theory)

Seminar 3

Week 7: Adverse Selection (Theory)

Seminar 4

Week 8: Adverse Selection; Signaling (Theory)

Seminar 5

Week 9: Signaling (Theory); Moral Hazard, Adverse Selection and Signaling (Applications)

Seminar 6

Week 10: Moral Hazard, Adverse Selection and Signaling (Applications)