Economics of Information (20854)

Degree/study: Economía/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, including moral hazard, adverse selection, signaling, and mechanism design.

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 Signaling

3.5 Adverse Selection

3.6 Mechanism Design

4. Assessment

Problem Sets: There are going to be several problem sets. The average grade will count a 15% of the final grade. These problem sets can be done by groups of at most 4 students. These groups have to be the same for the whole term and, unless the group gives credit to one student in particular for part of the solutions provided, all students in each group will get the same grade. It is acceptable that, without justification, one of the problem sets 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 handed in individually. These will not directly count for the final grade but some effort here is highly recommended to aspire to the Honors grade.

Seminars: Seminars will cover the solutions of problems related to the explanations from theory sessions. The grade from seminars will follow from three different sources.

(a) **Short Exams:** Average of grades from short exams at the beginning of some of the seminar sessions.

(b) **Attendance**: For each missed seminar session the average grade from (a) will be lowered by 1 point. At the beginning of the seminar session there will be a list you have to sign to prove attendance. If the number of signatures is larger than the number of students in the classroom at the end of the class, the whole seminar group will get a discount of 1 point on the individual average grades.

(c) **Active participation** can increase the average grade from (a) up to 2 points. These points would follow from explaining with the use of the blackboard the solutions of a section of some relevant problem and being able to answer questions from the seminar instructor related to that solution.

In any case, the final grade considering these three items will never be greater than 10 or less than 0.

Final exam: it will cover the whole course.

Final Grade (June): the grade from June's evaluation process will be given by

$$\text{Final Grade} = 0.15 * \text{PbmSets} + 0.15 * \text{Seminars} + 0.7*\text{June\_Exam}$$

Exam in July: for those who don't pass the course in June (those that pass the course in June are not allowed to take the exam in July). The only condition to participate in this exam is to hand in during the term the solutions of the problem sets. It is not necessary to take the exam in June to be able to take the exam in July. The final grade when taking this exam in July will be given by the maximum between

$$0.15* \text{PbmSets} + 0.15 * \text{Seminars}+0.7*\text{July\_Exam}$$

and

$$0.15*\text{PbmSets} + 0.85*\text{July\_Exam}$$

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

There will also be available lecture notes and problem sets for some sections of the course.

5.2. Additional bibliography

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

- S. Tadelis, *Game Theory: An Introduction*, 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: Lectures

Week 2: Lectures

Week 3: Lectures / Seminar (only theory groups 1 & 2)

Week 4: Lectures / Seminar (only theory group 3)

Week 5: Lectures / Seminar (only theory groups 1 & 2)

Week 6: Lectures / Seminar (all theory groups)

Week 7: Lectures / Seminar (all theory groups)

Week 8: Lectures / Seminar (only theory group 3)

Week 9: Lectures / Seminar (only theory groups 1 & 2)

Week 10: Lectures / Seminar (all theory groups)

Week 11: Lectures (only theory groups 1 & 2) / Seminar (only group 3)