UAB Universitat Autònoma de Barcelona	Company Economics and Management Code: 100969 Credits: 3	2026/2027

Degree programme	Type	Course
Biotechnology	OB	2

Contact lecturer

Name : Oscar Gutierrez Arnaiz

Email : oscar.gutierrez@uab.cat

Group languages

You can consult this information at the end of the document.

Prerequisites

This is a basic course in Economics and Management. Therefore, there is no prerequisite of previous knowledge.

Objectives

The main objective of this course is to familiarize Biotechnology students with the tools of economic analysis and the world of business, a context where future graduates will develop their professional lives. What determines the existence of firms? How are they organized and provide incentives? How does a monopoly company behave? And a firm under perfect competition? What does value creation mean or how can you choose between different business projects or financing sources ?

The creation of value, as a socially desirable objective of firms, is a key element of the course. Thus, the first chapters emphasize the role of transactions as the main way of creating value. SEveral chapters are dedicated to define value creation and the relationit with other objectives traditionally considered by firms, such as their own benefits. Later in the course, the creation of value and its management in the different activities of the firm, especially in the topics of production, financial transactions and the internal organization of the firm.

Learning outcomes

- CM28 (Work collaboratively in teams to solve problems associated with biotechnology in the field of economics.) Work collaboratively in teams to solve problems associated with biotechnology in the field of economics.
- KM29 (Explain the principles of economic analysis in the production and marketing of biotechnological products.) Explain the principles of economic analysis in the production and marketing of biotechnological products.
- SM27 (Apply the principles of organisation and management of the different functional areas of a biotechnological product company.) Apply the principles of organisation and management of the different functional areas of a biotechnological product company.

Contents

PART 1: THE NATURE OF THE FIRM AND ITS ORGANIZATION

Topic 1. The Firm

1. The problem of the Organization and the creation of value

2. Example of the tribe

3. Company versus Market

4. Intermediate solutions

5. The entrepreneur

Topic 2. Perfect competition and monopoly

1. Perfect competition solution and the creation of Value

2. Perfect competition conditions

3. Monopoly solution and value

4. Consumer surplus, price discrimination and Anti-Trust

PART II. ACTIVITIES OF THE FIRM

Topic 3. The production activity of the firm

1. The firm as a productive unit

2. The firm as a production function

3. The costs

4. Maximize production, minimize costs

Topic 4. The investments and the financial activity of the firm

1. The price in financial transactions, interest rates

2. Capitalization and update operations

3. The choice of investments or financing: interest rates

4. The selection of investments (or financing): NPV

PART III. ORGANIZATIONAL DESIGN

Topic 5. Organizational design and the creation of value

1. The relevance of organizational design

2. Market failures and organizational solutions

3. The Agency problem and the problem with Teams

4. Moral Hazard and incentive contracts

5. Adverse selection, self-selection and signals.

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
Study the course subjects, solving the cases, exercises and questions proposed in the course	58	2.32	
Case discussion and problem solving	11	0.44	
Individual tutories at the professor's office	3	0.12	

The theory syllabus will be taught primarily by the lecturer through lectures.

In addition to attending classes, following the course will also require active participation in class discussions. A series of exercises or activities will be proposed for each topic to reinforce the material. Time will be set aside (tutorial sessions) for individualized attention and to address any questions that may arise.

Annotation: within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
Exam	50%	2	0.08	CM28, KM29, SM27
Midterm exam	35%	1	0.04	CM28, KM29, SM27
Participation in class	15%	0	0	CM28, KM29, SM27

The assessment will consist of two components:

1) The final exam (individual assessment, accounting for 50% of the grade).

2) Continuous assessment based on activities suggested throughout the course (accounting for 50% of the grade). This continuous assessment will comprise: a) a midterm test (individual assessment) covering theoretical content, weighted at 35%; and (b) active class participation-including the discussion of cases and news items, as well as the completion of exercises-weighted at 15%.

Attendance is mandatory. A minimum attendance rate of 60% is required to be eligible for assessment.

To pass the course, a minimum score of 4.5 is required in each of the two components (final exam and continuous assessment). The final grade will be the weighted average of these two components. If the weighted calculation results in a grade of 5 or higher, the student passes the course.

If the grade is below 3.5, the student must retake the course in the following academic year. Students who achieve a grade of 3.5 or higher but below 5 will be eligible for a retake assessment.

There is no provision for a single, one-off assessment for this course.

Any irregularity committed during an assessment activity (academic misconduct, plagiarism, or improper use of AI, unless such use is expressly authorized in the course syllabus) that may lead to a significant alteration of the grade will result in that activity being graded as 0. If the course syllabus stipulates that obtaining a minimum mark in this assessment is an essential requirement to pass the course, or if multiple irregularities occur in the assessment activities of the same course, the final grade for the course will be 0. Furthermore, disciplinary proceedings may be initiated against any student who incurs any of these irregularities.

15 minutes will be dedicated by students to complete the surveys evaluating teaching performance.

Bibliography

SERRA, Antoni (2003): Mercado, contratos y empresa. 2ª edición. Manuals de la UAB, Labor

SALAS, Vicente (2008): El siglo de la empresa. Ariel.

Software

In this subject the use of specific software is not foreseen.

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this link. To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(TE) Theory	42	Spanish	first semester	afternoon