

Academic Year: ( 2021 / 2022 )

Review date: 27-06-2021

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: ASIMAKOPOULOS , GRIGORIOS

Type: Basic Core ECTS Credits : 6.0

Year : 2 Semester : 1

Branch of knowledge: Social Sciences and Law

**REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)**

No pre-requirements.

**OBJECTIVES**

The main objectives for this course are to familiarize future engineers with the concept of private companies and their institutional and legal framework, as well as with the essentials of business management. In addition, it will convey the relevant role of engineering and engineers in business management.

**DESCRIPTION OF CONTENTS: PROGRAMME**

1. The Firm: Types and objectives
  - 1.1. Concept and nature of the firm. The entrepreneur and the firm.
  - 1.2. Business processes and business functions
  - 1.3. The role of engineering and engineers in Business Administration
  - 1.4. Type of companies and legal forms
  
2. Value creation: environment and competitive advantage
  - 2.1. Value creation and firm's goals
  - 2.2. The business environment and competence
  - 2.3. Firm's internal analysis and value chain
  - 2.4. Competitive strategy and business models
  
3. Financial management
  - 3.1. Accounting and Firms' economic and financial structure
  - 3.2. Ratios and financial leverage analysis
  - 3.3. Investment analysis: NPV and IRR
  
4. The production function
  - 4.1. Production systems
  - 4.2. Costs control and operating leverage
  - 4.3. Tools for Project management
  
5. Marketing and sales management
  - 5.1. The marketing Plan
  - 5.2. Segmentation and positioning
  - 5.3. The marketing mix variables
  
6. The management function.
  - 6.1. The role of management
  - 6.2. Human resource management
  - 6.3. Team management
  
7. Entrepreneurship and innovation: Technology-based companies

- 7.1. Concept and types of innovation
- 7.2. Innovation Management. Strategies for the protection and exploitation of technology
- 7.3. Technological entrepreneurship. Technology-based companies

## LEARNING ACTIVITIES AND METHODOLOGY

**THEORETICAL-PRACTICAL CLASSES.** In them the knowledge that students must acquire will be presented. They will receive the class notes and will have Basic reference texts to facilitate the follow-up of the classes and the development of the subsequent work. Exercises will be solved by the student who will It will serve as a self-assessment and to acquire the necessary skills. Classes of problems, in which the problems that are proposed to the students. For subjects of 3 credits, 21 hours will be dedicated with 100% attendance (0.87 ECTS); ; For the 6-credit subjects, 42 hours will be dedicated with a 100% presence (1.75 ECTS).

**TUTORING.** Individualized assistance (individual tutorials) or in groups (collective tutorials) to students by the teacher. For subjects of 3 credits  
14 hours will be dedicated with 25% attendance (0.58 ECTS); 28 hours will be dedicated for 6-credit subjects with 25% attendance (1.15 ECTS).

**STUDENT INDIVIDUAL OR GROUP WORK.** For subjects of 3 credits, 37 hours will be dedicated with 0% face-to-face (1.55 ECTS); for subjects of  
6 credits will be dedicated 74 hours with 0% attendance (3.10 ECTS).

**FINAL EXAM.** The knowledge, skills and abilities acquired throughout the course will be assessed globally. 4 hours will be dedicated 100% face-to-face

**PREPARATORY AND PRIOR WORK.** Analysis of exercises and critical reading of texts recommended by the teacher of the subject: Exercises, articles, reports, manuals, either for later discussion in class, or to expand and consolidate the knowledge of the subject.

**MASTER CLASS.** Exhibitions in the teacher's class with the support of computer and audiovisual media, in which The main concepts of the subject are developed and the materials and bibliography are provided to complement the student learning.

**PRACTICAL SESSIONS.** Resolution of practical cases, problems, etc., raised by the teacher individually or in groups.

**WORKS AND REPORTS.** Preparation of work and reports individually or in groups.

## ASSESSMENT SYSTEM

**FINAL EXAM.** In which the knowledge, skills and abilities acquired from throughout the course. The valuation percentage is 60%.

Minimum mark in the final exam to pass the course: 4

**CONTINUOUS ASSESSMENT.** In it the Works, Presentations, Performance in Debates, Exhibitions will be valued in Class, Exercises and Laboratory Practices. The valuation percentage is 40%.

**% end-of-term-examination:** 60

**% of continuous assessment (assignments, laboratory, practicals...):** 40

## BASIC BIBLIOGRAPHY

- S Rudansky-Kloppers, B Erasmus, J Strydom, JA Badenhorst-Weiss, y otros (eds.) Introduction to Business Management, Oxford University Press, 2013

## ADDITIONAL BIBLIOGRAPHY

- Navas López, J.E. y Guerras Martín, L.A. Fundamentals of strategic management, Thomson, 2013