

Academic Year: (2018 / 2019)

Review date: 11-05-2018

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: ASIMAKOPOULOS , GRIGORIOS

Type: Compulsory ECTS Credits : 6.0

Year : 3 Semester : 1

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.

Specific capabilities:

- Understand the concept of a company as a system, its various constituent subsystems and their interrelationships.
- Appropriate understanding of the company's institutional and legal framework.
- Identify, for each major functional area, its scope and the main approaches and techniques used in this area.
- Identify the main business processes, and the need for their cross-functional integration.
- Position engineering within the overall business activities, and understand the engineer's role in the management of the companies.
- Analyze how economic or sustainability constraints restrict viable options for approaching and solving technical challenges

Generic capabilities:

- Analysis of unstructured situations and decisions, with incomplete and not fully reliable information and multiple, conflicting objectives.
- Qualitative reasoning and argumentation.
- Written expression of this qualitative reasoning
- Ability to apply knowledge of mathematics, statistics, economics and other scientific fields to the analysis of business situations.
- Ability to communicate with non-technical executives, applying the appropriate vocabulary and structuring tools.

DESCRIPTION OF CONTENTS: PROGRAMME

This is an introductory course with the aim of providing the student with the basic concepts of business management. It provides an overview of the historical context of modern business and of the major functional areas of management studies such as management, finance, production and marketing. Also, the course includes very important topics like the nature of the company, its environment and the tools for the decision making process.

1. Introduction

- 1.1. Concept and nature of the firm
- 1.2. Business processes and business functions
- 1.3. Role of engineering and engineers in Business Administration.

2. Firms: Types and objectives.

- 2.1 The enterprise and the entrepreneur. Types of firms.
- 2.2. Objectives and strategies
- 2.3. The business environment

3. Financial management

- 3.1. Accounting. Analysis of financial statements
- 3.2. Investment decisions
- 3.3. Financing decisions

- 4. Operations management
 - 4.1. Productive Systems
 - 4.2. Project management
 - 4.3. Logistics

- 5. Marketing and sales management
 - 5.1. Marketing fundamentals.
 - 5.2. The marketing mix.
 - 5.3. The marketing plan.

- 6. The management function.
 - 6.1 Directive function
 - 6.2. Organizational structure.
 - 6.3. Human resource management

- 7. Entrepreneurship and innovation: Technology-based companies

LEARNING ACTIVITIES AND METHODOLOGY

Lectures, exercises, business plan, cases and assignments to be carried out by the students and discussed during the sessions, readings assigned by the instructor or identified by the students.

ASSESSMENT SYSTEM

- Continuous evaluation (40%). practices and other complementary evaluation systems, (20%) development group of a business plan (20%).
 - o Soft-skills: communication, teamwork, flexibility.

 - o PO ABET: c (ability to design a system, component, or process to meet desired needs), g (ability to communicate effectively), i (Recognition of the need for and an ability to engage in life-long learning), j (knowledge of contemporary issues)

 - o PO EurAce: making judgements, lifelong learning

- Final exam (60%). The objective is to verify the acquisition of knowledge and competences acquired by the student. It is mandatory to do it and obtain a minimum of 4 points out of 10 in order to pass the course.
 - o Soft-skills: communication, responsibility.

 - o PO ABET: g (ability to communicate effectively), j (knowledge of contemporary issues).

 - o PO EurAce: making judgements, lifelong learning.

% 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