uc3m Universidad Carlos III de Madrid

Technology-based firms: venturing and development

Academic Year: (2022 / 2023) Review date: 06-05-2022

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: NIETO SANCHEZ, MARIA JESUS

Type: Electives ECTS Credits: 3.0

Year: 1 Semester: 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

The compulsary subject of first term are recommended.

OBJECTIVES

This subject aims students to know the peculiarities involving Technology based firms. After completing this subject, students will be able to understand and manage the specific issues that affect the creation of Technology-Based Companies. It focuses on skills related to the management of technology assets and the mechanisms for collaboration between universities and companies to promote the creation of EBT be provided. Specifically, this course reinforces some specific competences:

- Ability to understand, analyze and solve complex problems related to venture, expansion and consolidation of a business project from extensive knowledge of advanced tools of business management.
- Ability to critically analyze cases of companies and draw from them conclusions relevant to business practice.

DESCRIPTION OF CONTENTS: PROGRAMME

The concept of Technology Based Companies (TC): alternative definitions and typologies

Technological knowledge management

Knowledge transfer among TC

Intangible assets of a technological nature

Technological resources and competitive advantage

The management of intangible assets of a technological nature

Economic valuation of intangibles

Development of R+D+i in high-tech companies

Funding for TC

Public policies to support the creation of spin-offs

Tax incentives for spin-offs

University-industry collaboration and the creation of spin-offs

Programs to support the creation of university spin-offs

Technological collaboration and innovation in TC

LEARNING ACTIVITIES AND METHODOLOGY

- a) Theoretical classes
- b) Seminars
- c) Practical classes

ASSESSMENT SYSTEM

Assessment will be based on coursework, students participation and final examinations, following this criterion:

- Class involvement and participation: 20%
- Works and practical cases: 40%
- Final work: 40%

This assessment is applied both in the ordinary and extraordinary call

% end-of-term-examination: 0
% of continuous assessment (assignments, laboratory, practicals...): 100

BASIC BIBLIOGRAPHY

- Díaz, E., Souto, J.E., Tejeiro, M.R. NEBTS 3. Nuevas empresas de base tecnológica. Caracterización, necesidades y evolución en un periodo de crecimiento y en otro de ralentización y recesión económica. , Fundación Madri+d para el Conocimiento, 2014
- Souto, J.E Innovación, emprendimiento y empresas de base tecnológica en España : factores críticos e impacto sobre la competitividad de la economía, Netbiblo, 2013
- Tidd, J., Bessant J. Managing innovation. Integrating technological, market and organizational change, John Wiley & Sons.. 5th Edition. UK., 2013

ADDITIONAL BIBLIOGRAPHY

- Simón Elorz, K. La creación de empresas de base tecnológica: una experiencia práctica, CEIN, 2003