uc3m Universidad Carlos III de Madrid

Establishement and development of new technology-based firms

Academic Year: (2023 / 2024) Review date: 18-04-2023

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: NIETO SANCHEZ, MARIA JESUS

Type: Compulsory ECTS Credits: 5.0

Year: 1 Semester: 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

No prerequisites

OBJECTIVES

COMPETENCES:

- Know the main theoretical and empirical tools to create, develop and implement a business project.
- Ability to identify business opportunities
- Ability to manage with ease various information sources.
- Ability to develop management skills, negotiation skills and leadership spirit.
- Develop, analyse and present a Business Plan

LEARNING RESULTS

- 1. Know peculiarities of new technology-based firms.
- 2. Understand the key factors of innovative companies.
- 3. Have criteria to address the risk of being an entrepreneur in the biomedical industry.
- 4. Ability to design, plan and start a business project in biomedical industries.

DESCRIPTION OF CONTENTS: PROGRAMME

- 1. Firm and entrepreneur. Characteristics of new technology-based companies (NTBC).
- 2. Business venturing and business opportunities
- 3. Business idea. Identifying and evaluating business opportunities. Viability of business idea.
- 4. Technology-based firms: Potencial evaluation
- 5. Business plan: design, structure and purpose
- 6. Development of Business Plan

LEARNING ACTIVITIES AND METHODOLOGY

LEARNING ACTIVITIES

The learning activities to be developed are aimed at stimulating and training students in the field of entrepreneurship and business venturing. To achieve this aim the following resources teaching are proposed:

- Lectures: clear and systematic explanations of the contents of the different aspects of business venturing.
- Practical case studies, exercises and applications of different stages of the business plan, where the students take an active role.
- Seminars of entrepreneurs and other professionals involved in new ventures.
- Group work: Development of a business plan, in which students reflect their business idea, viability and implementation of the business project.
- Tutorships
- Student's individual work

TEACHING METHODOLOGIES

- Teacher explanations supported with audiovisual media and information technology, in which the main concepts of the subject are developed and the reference literature is provided to supplement student learning.
- Critical reading of international references recommended by the professor: journal papers, reports and manuals for further discussion in class, to enhance and consolidate the knowledge acquired.
- Solving practical cases, presented by the professor to the students either individually or in groups.
- Presentation and discussion in class, under the moderation of the professor, of subjects related to the

course.

- Reports and projects (working individually or in groups).

ASSESSMENT SYSTEM

Attendance to 80% of sessions is mandatory to be evaluated.

GRADING:

Total score: 10 points

Continuous evaluation: 4 points out of 10

Final exam: 6 points out of 10

CONTINUOUS EVALUATION (40% of the final score of the subject): includes the business plan development (30%) and the development, resolution and discussion of case studies (10%).

FINAL EXAM: The final exam will cover the whole subject and it will account for the 60 % of the final score (6 points of the TOTAL SCORE). The minimum score in the final exam to pass the subject is 4 over 10, notwithstanding the mark obtained in continuous evaluation.

EXTRAORDINARY EXAM: the mark for students attending any extraordinary examination will be either a) 100% extraordinary exam mark, or b) 60% extraordinary exam mark and 40% continuous evaluation if it is available on the same course and if the student requests it.

% end-of-term-examination: 60 % of continuous assessment (assigments, laboratory, practicals...): 40

BASIC BIBLIOGRAPHY

- Barringer, B. and Duane Ireland, R. (2012). Entrepreneurship: Successfully Launching New Ventures, Pearson.
- Bygrave, W. and Zacharakis, A. (2011). Entrepreneurship., Wiley.
- Hirisch, R., Peters, M. Sheperd, D. (2013). Entrepreneurship., McGraw Hill.
- Rodríguez Márquez, A., Nieto, M.J, Fernández, Z., Revilla, A. (2014) Manual de creación de empresas. De la oportunidad a la puesta en marcha., Civitas .

ADDITIONAL BIBLIOGRAPHY

- Chaston, I Technological Entrepreneurship: Technology-Driven vs Market-Driven Innovation, 2017, Palgrave Macmillan.