

Academic Year: ( 2021 / 2022 )

Review date: 16-07-2021

Department assigned to the subject: Economics Department

Coordinating teacher: VELASCO BAYON, DIEGO

Type: Compulsory ECTS Credits : 5.0

Year : 1 Semester : 1

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

No prerequisites

**OBJECTIVES****BASIC COMPETENCES**

CB6. Knowledge and understanding that provides basis for originality in developing and/or applying ideas, often in a research context.

CB7. Apply the acquired knowledge and the ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study.

CB8. To be able to integrate the acquired knowledge and handle complexity of formulate judgments based on incomplete or limited information, including reflections on social and ethical responsibilities linked to the application of their knowledge and judgments.

CB9. To be able to communicate their conclusions and thoughts to a specialized and non-specialized audience in a clear and unambiguous manner.

CB10. Students must possess the learning skills that enable them to continue studying.

**GENERAL COMPETENCES**

CG1. Achieve a multidisciplinary scientific view, with a clear translational orientation and applied in the field of biomedical science and technology.

CG3. Ability to lead and manage groups and research teams, promoting teamwork, knowledge management and competitive intelligence.

CG4. Ability to analyze, synthesize and apply knowledge to propose original solutions to biomedical problems.

CG5. Develop abilities to identify and understand the social needs and to provide scientific and technological solutions in the biomedical field.

CG6. Identify the keys of technology transfer in the Spanish and EU market and understand the basis for the management and building of a biomedical based company.

**SPECIFIC COMPETENCES**

CE10. Learn the concepts and the practical use of the research valorization process (ideas and technologies) as well as the use of intellectual and industrial property rights as a strategic factor for both the development of new technologies and the commercialization of new products in the field of biomedicine.

CE11. Learn how a company works, including basic concepts, and also those related to ethical behavior and social responsibility

**LEARNING RESULTS**

Understand and assess the importance of economic and management relational aspects in the area of health and in the design of public RDI policies, particularly in relation to the development of new ideas in the field of biomedical technologies, with the purpose of planning an effective research plan and the possible economic exploitation of the obtained technological results through different ways, in particular, through the creation of new companies.

**DESCRIPTION OF CONTENTS: PROGRAMME**

According to the economy evolution where the necessary relationship university /research center - industry is increasing, the objectives of this course are: i) to get familiar and understand R&D calls and, ii) to learn the concepts and practice of valuing ideas and technologies as well as the use of industrial and intellectual property as a strategic factor for the development and commercialization of new technologies and products.

Programme:

- a) Basic economy principles
- b) Health Economics: The Spanish Health System (SES). The Biomedical Industry: Structure and legal framework and perspectives.
- c) Public R&D policies fundamentals. The Spanish NIS (National Innovation System). Financing R&D projects.
- d) Technology transfer (TT) function: Strategic management. Support organizations and infrastructures.
- e) Commercialization of technology and research results: identification, protection and commercialization of research results. Analysis of industrial and intellectual property. License of patents and technologies and copyright
- f) The relationship between universities (or Research Centers) and industry in collaborative projects: public programs and calls for collaborative R+D+i projects.
- g) Accounting and Financial Analysis: Basic concepts. Cost, accounting and financial analysis of R & D. Case Studies.
- h) Visit to the UC3M Scientific Park

## LEARNING ACTIVITIES AND METHODOLOGY

### LEARNING ACTIVITIES

- Theoretical classes
- Practical classes
- Theoretical-practical classes
- Tutorships
- Group work
- 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: 5 points out of 10

Final exam: 5 points out of 10

CONTINUOUS EVALUATION (50% of the final score of the subject): test (10%), presentation (10%), Retos project (20%) and expert evaluators activity (10%). Failure to attend any test or submit the exercises before the deadline will result in a mark of 0 in the corresponding continuous evaluation block.

FINAL EXAM: The final exam will cover the whole subject and it will account for the 50 % of the final score. The minimum score in the final exam to pass the subject is 5 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) 50% extraordinary exam mark and 50% continuous evaluation if it is available on the same course and if the student requests it.

ACADEMIC CONDUCT: Unless otherwise specified, the tests will be closed book, no computer or phone, or anything else other than a writing instrument and the examination itself. Plagiarism, cheating or other acts of academic dishonesty will not be tolerated. Any infringement of any kind will result in a failing grade.

<b>% end-of-term-examination:</b>	50
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	50

#### BASIC BIBLIOGRAPHY

- AnnaLee Saxenian Regional advantage : culture and competition in Silicon Valley and Route 128, Harvard University Press.
- Francisco Mochón Morcillo Principios de economía, McGraw-Hill, 2010
- María José Herrero Villa Diagnóstico de los parques científicos y tecnológicos en España : la perspectiva empresarial, Publicia, 2014