Economy, management and organization of Health Systems and Hospital

Academic Year: (2019 / 2020) **Review date: 07/05/2020 22:35:29**

Department assigned to the subject: Bioengineering and Aeroespace Engineering Department

Coordinating teacher: RIPOLL LORENZO, JORGE

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 2

OBJECTIVES

Specific competences:

- CE2. Ability to understand and use the statistical methods necessary for conducting scientific studies, evaluation of equipment from the point of view of effectiveness, accreditation for medical use or study of comparative effects in patients.
- CE3. Advanced knowledge of health technology management, both in technical and economic aspects, and including the acquisition and maintenance thereof.

Basic or general competences:

- CB6. Possess and understand knowledge that provides a base or opportunity to be original in the development and / or application of ideas
- CB7. That students know how to apply the knowledge acquired and their ability to solve problems in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their area of ¿¿study.
- CB8. That students are able to integrate knowledge and face the complexity of formulating judgments based on information that, being incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments.
- CB10. That the students possess the learning skills that allow them to continue studying in a way that will be largely autonomous.
- CG3. Ability to design and carry out technological projects in the field of the application of engineering to medicine, as well as to analyze and interpret their results.
- CG4. Ability to evaluate medical equipment and instrumentation in complex multidisciplinary environments, assessing the needs of different clinical users and offering objective measures for decision making.

To overcome this subject, students should be able to:

- Locate the clinical services within the hospital organization, as well as the active non-implantable medical devices in each of them, describing the structure of the Spanish health system.
- Characterize the clinical electromedical service of a hospital / health institution and its relationship with technical assistance services, recognizing the importance and repercussion of its proper management.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Economic policy and analysis of the economic environment
1.1. The objectives of economic policy
1.2. The employment policy
1.3. The monetary policy
1.4. The fiscal policy
1.5. The foreign trade policy

2. Macroeconomic variables

2.1. Income and expenditure in the economy
2.2. The measurement and components of GDP
2.3. Real GDP and nominal GDP. The GDP deflator
2.4. The measurement of the cost of living
2.5. Inflation and its costs
2.6. The correction of macroeconomic variables
2.7. Unemployment and its measurement

3. Financial and investment analysis
3.1. The concept of financial analysis
3.2. Analysis of profitability, liquidity and solvency
3.3. The business diagnosis

4. Management controls
4.1. Fundamentals of management
4.2. Analysis of the sector and competition

5. Management in the health system
5.1. Strategic direction in the field of Clinical Engineering

LEARNING ACTIVITIES AND METHODOLOGY

The formative activities of the subject are:

AF1. Theorical class
AF3. Theoretical-practical class
AF5. Tutorials
AF6. Team work
AF7. Individual work of the student

The teaching methodologies that will be used will be:
MD1 Exhibitions in the teacher's class with support of computer and audiovisual media, in which the main concepts of the subject are developed and the bibliography is provided to complement the students' learning.
MD2. Critical reading of texts recommended by the teacher of the subject: Press articles, reports, manuals and / or academic articles, either for further discussion in class, or to expand and consolidate the knowledge of the subject.
MD3. Resolution of practical cases, problems, etc. raised by the teacher individually or in groups.
MD4. Exhibition and discussion in class, under the teacher's moderation of topics related to the content of the subject, as well as practical cases.
MD5. Preparation of papers and reports individually or in groups.

Development and justification:

Theoretical academic sessions: as a means of offering a general and systematic overview of the topics, highlighting the most important aspects of them and interspersing exercises between the theoretical explanations when deemed appropriate. These theoretical sessions will be taught regularly at the beginning of each topic.
Practical academic sessions: Calculation and analysis of practical cases, in correlation with the theoretical concepts taught.
Seminars: Exhibition and debate of proposed works, organized in seminars, in which the skills of group work, exhibition, defense and discussion of a topic or work are practiced.

ASSESSMENT SYSTEM

% end-of-term-examination/test:	50
% of continuous assessment (assigments, laboratory, practicals…):	50

SE1. Class participation.
SE2. Individual or group work carried out during the course.
SE3. Final exam.

Development and justification:

The evaluation of knowledge and competences will be carried out through the realization of problems,

% end-of-term-examination/test:	50
% of continuous assessment (assigments, laboratory, practicals…):	50

practices and works related to the thematic blocks described above.

The evaluation process is based on the student's personal work. The supervised works have a weight of 45% in the final grade of the subject, as long as the final exam grade reaches 4 points out of 10. Active participation in the theoretical and practical classes will assume a weight of 5%.

It is proposed to carry out a theoretical-practical examination, consisting of the interpretation of a series of theoretical questions and the resolution of a certain number of problems. This exam will be given a weight in the final grade of the subject of 50%. The relative weight of each part will be indicated in the test statement.