Internship

Academic Year: (2021 / 2022) **Review date: 21-06-2021**

Department assigned to the subject: Bioengineering and Aeroespace Engineering Department

Coordinating teacher: DESCO MENENDEZ, MANUEL

Type: Compulsory ECTS Credits : 6.0

Year : 2 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

To be able to take this course, it is necessary to have passed 80% of the subjects of the master's degree.

OBJECTIVES

COMPETENCES THAT THE STUDENT ACQUIRES WITH THIS MATTER

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 acquired knowledge 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
CB9 That students know how to communicate their conclusions and the knowledge and ultimate reasons that sustain them to specialized and non-specialized audiences in a clear and unambiguous way
CB10 That students have 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.
CE10 Capacity to install and maintain active non-implantable medical products in electromedical systems and their associated installations, under quality criteria, in safety conditions and in compliance with current regulations.

LEARNING RESULTS

At the end of this internship, the student is expected to have learned to:
- Analyze and recognize the important aspects of a clinical engineering project.
- Design and develop practical solutions by working as a team.
- Program and organize the tasks of a work team aimed at achieving a specific objective.
- Predict and evaluate the consequences of their technical decisions in a biomedical environment.
- Judge and value the contributions of the other members of a multidisciplinary team.
- Identify the structure and organization of the company, relating it to the type of service it provides.
- Apply ethical and work habits in the development of their professional activity, in accordance with the characteristics of the job and the procedures established in the company.
- To carry out operations related to the assembly, start-up or maintenance of installations, systems or equipment in each speciality.
- To carry out tasks related to the planning of the acquisition of new electromedical equipment or the plan for the renovation of the technology park associated with a typical health centre.
- To carry out tasks related to the programming of the assembly or maintenance of installations or systems of clinical electromedicine, as well as the elaboration of supply programs or associated training

plans.

DESCRIPTION OF CONTENTS: PROGRAMME

This subject consists of supervised professional work within a company with activities in the clinical engineering sector or in a hospital.

The internship must meet two conditions: 1) it must be managed and authorized by the SOPP and the Academic Committee of the master's degree and 2) it must have a minimum of 150 hours of work at the host institution (although the final number of hours depends on the agreement between the student and the host institution).
In order to obtain this authorization, the description of the tasks that the student will carry out at the host institution, as well as the knowledge and skills that will be developed in the job, must comply with the learning objectives of the Master's degree.

- The number of hours of practice that students will carry out must be at least 150 hours.
- The specific content will depend on the post and the host institution.

LEARNING ACTIVITIES AND METHODOLOGY

For the acquisition of the above-mentioned skills and abilities, the student shall:
- Contribute, based on the tasks assigned by the company, to the work of the department where the student is hosted.
- Prepare a report containing the activities carried out in the company, paying special attention to the proposals for improvement for the company where the internship has been carried out.
- Presentation by the person in charge of the internship of the Master's Degree of the report, made by the company, of the follow-up of the progress, adaptation and quality of the student's work.

ASSESSMENT SYSTEM

The student's final grade will be determined based on two concepts:
1) Activity report prepared by the student (50% of the grade). This document will include the following information: the experience in their practices, the tasks performed, the characteristics of the company and of the position held.
2) Evaluation of the work done by the student by the company (50% of the grade). The person in charge of the coordination of traineeships in the host company will draw up a report on the activity carried out by the student, indicating aspects such as the student's personal attitude and motivation; his ability to work team; their professional ethics; their ability to propose improvements at work; and their ability to communicate by written and oral proposals.

BASIC ELECTRONIC RESOURCES

- UC3M Orientación & Empleo . PRÁCTICAS EN EMPRESAS: http://portal.uc3m.es/portal/page/portal/sopp