PROJECT III

Code: 16150

Main Scientific Area: Health, Environment and Industrial Technologies

Lecturer: Filipe José Palhares Chaves

Language of Instruction: Portuguese

Regime: S1

Contact Hours: 160h Total Workload: 0h

ECTS: 6,0

Objectives

The general objectives of the course are:

I – To know, interpret and develop a product development system;

II – To know, interpret and develop a process planning system;

III – To know, interpret and develop a production planning and control system;

IV – To know the practices of product development, process planning and production planning and control of companies from the region, with special focus on industrial companies;

V – To prepare the communication in written technical reports and public presentations;

VI – To aggregate the knowledge acquired in the other Curricular Units in order to assimilate the contents through its application and observation in the reality practiced in the collaborating companies;

VII - Prepare a preliminary project for further development within the context of an internship for the following semester.

Learning Outcomes

The student should be able to know, interpret and develop product / service and process systems oriented to business and manufacturing organizations from the region. The student should also prepare a proposal for improvement of systems, products / services and processes in a written presentation in the form of a technical report and oral presentation in companies, using the knowledge acquired in this Course and other Curricular Units. Based on, the student establishes connections of certain taught contents with the reality of the companies that have opportunity to know. The technical report must take the form of a preliminary project carried out jointly and in agreement with the host entity of the internship to be developed within the Co urse with that name.

Course Contents

Product, Service and Product-Service System Development System Process Planning Systems Manufacturing System Methodologies Concurrent and Collaborative Engineering Agile Manufacturing Agile Project Management Use of collaborative platforms for planning and teamwork management.

Recommended Bibliography

Apontamentos das aulas

Project Management Institute (2019) .Practice Standard for Work Breakdown Structures - Third Edition. PMI Inc.

Sami Chatti, Luc Laperrière, Gunther Reinhart, Tullio Tolio (2019).CIRP Encyclopedia of Production Engineering. Springer-Verlag Berlin Heidelberg.

K. G. Swift, J. D. Booker (2013). Manufacturing Process Selection Handbook – 1st Edition. ButterworthHeinemann.

Stephen N. Chapman (2005). The Fundamentals of Production Planning and Control. Pearson.

Learning and Teaching Methods

The classes allow the theoretical-practical framework in order to understand and deve lop systems design that will later be studied and implemented in the specific cases of the company chosen for the collaboration.

The framing of the Curricular Unit in a company, allows the student to get closer to the reality he will find in the Internship Curricular Unit.

The organization of the preliminary project for the development of the internship is presented in the form of a technical report according to the company and in an oral presentation, allowing to consolidate the acquired concepts.

Assessment Methods

Learning outcomes will be evaluated individually through the following components:
Report I (Company context): 35%
Report II (Draft for collaboration with the company): 55%
Attendance and commitment: 10%