

Academic Year: (2018 / 2019)

Review date: 03-05-2018

Department assigned to the subject: Statistics Department

Coordinating teacher: KAISER REMIRO, REGINA

Type: Electives ECTS Credits : 6.0

Year : Semester :

OBJECTIVES

Specific Skills:

1. To describe the fundamental of the methods of Quality control and the basic tools for the analysis of processes;
2. To estimate the capacity of a productive process;
3. To draw a Quality control plot for proportions ranks and means;
4. Implementing the previous methods using statistical software .

GENERAL SKILLS

1. Analysis and synthesis capability.
2. Knowledge of statistical software.
3. Resolution of problems
4. Team work.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Quality. Quality management system.
2. Management and improvement of quality.
3. Total Quality. EFQM model of Excellence.
4. Economic aspects of quality. Quality costs.
5. Quality indicators.
6. Statistic process control . Process capability.
7. Quality tools.
8. Experiments design for the improvement of quality.
9. 6 Sigma methodology.
10. Quality control and risk management.

LEARNING ACTIVITIES AND METHODOLOGY

Theory (4 ECTS). Theoretical classes with web based support material. Practice (2 ECTS) Tutorial classes both in class and in the computing lab. Oral expositions.

ASSESSMENT SYSTEM

40% of the final mark will be obtained in a final examination of the level of acquired learning skills

The remaining 40% will be the result of a continued assessment of the students' understanding both of the theoretical contents of the course and their ability to apply them to the solution of practical problems

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

BASIC BIBLIOGRAPHY

- Goetsch, David Quality Management : introduction to total quality management for production, processing, and services, Prentice Hall. , 2000
- Ishikawa, Kaoru. Guide to quality control, Asian Productivity Organization. , 1991
- Ishikawa, Kaoru. What is total quality control? the japanese way, Prentice Hall, 1995
- Montgomery, Douglas C. Introduction to statistical quality control, John Wiley & Sons., 2005
- Montgomery, Douglas C. Design and analysis of experiments, John Wiley & Sons, 2005

