

**COURSE DATA****DATA SUBJECT**

Code: 46546
Name: Continuous Improvement Programmes
Cycle: Master's Degree
ECTS Credits: 4
Academic year: 2026-27

STUDY (S)

Degree	Center	Acad. year	Period
2260 - Master's degree in Quality Management	Facultat d'Economia	1	Annual

SUBJECT-MATTER

Degree	Subject-matter	Character
2260 - Master's degree in Quality Management	Herramientas, técnicas y programas de gestión de la calidad	COMPULSORY

COORDINATION

PARDO GARCIA CRISTINA

SUMMARY

The objective of the subject Programs of continuous improvement is to provide the student with the knowledge related to programs and methodologies linked to quality management, and that make it possible to eliminate waste and reduce the variability of the process. We will place special emphasis on the methodologies Lean Management, 6 Sigma and 5S's. To do this, students must be aware of the different stages that make up the DMAIC cycle, as well as the tools and techniques that are applicable in each of them. With this, we intend that the student knows these programs in detail and see how they have been successfully applied to leading companies in different sectors.

PREVIOUS KNOWLEDGE**RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS

Previous knowledge necessary to take this subject are those required for admission to this master's



degree. It is recommended, though, that the student are used to the concepts seen in the 2 previous subjects that make up this block: 1) Tools to evaluate quality; and 2) Techniques for continuous improvement based on data.

COMPETENCES / LEARNING OUTCOMES

2260 - Master's degree in Quality Management

Collaborate effectively in work teams, assuming responsibilities and leadership roles and contributing to collective improvement and development.

Demonstrate critical and self-critical reasoning within the field of study, considering aspects such as professional ethics, moral values and the social implications of the different activities carried out.

Demonstrate knowledge and understanding of social inequalities based on sex and gender within this specific field of study; integrate the different needs and preferences based on sex and gender into the design of solutions and problem solving.

Know the main technical tools and quality management programmes.

Lead teams and empower them.

Make strategic, tactical or operational decisions in the field of quality management.

Promote commitment to quality in all departments and at all hierarchical levels of the organisation.

Propose creative and innovative solutions to complex situations or problems specific to the field of knowledge to respond to different professional and social needs.

DESCRIPTION OF CONTENTS

1. Unit 1. Introduction to continuous improvement cycles

Development of the PDCA and DMAIC continuous improvement cycles and the different stages that make up them.

2. Unit 2. Techniques and tools for continuous improvement cycles

Development of the techniques and tools that can be used in the different stages of the PDCA and DMAIC cycles.



3. Unit 3. Methodologies Lean management, 5S's and 6 Sigma

Development of the methodologies Lean management, 5S's and 6 Sigma and their application with an "in situ" study.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	40,00
Total hours	40,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	10,00
Independent study and work	20,00
Preparation of lessons	10,00
Preparation for assessment activities	20,00
Resolution of case studies	0,00
Total hours	60,00

TEACHING METHODOLOGY

Some sessions will be developed interactively (MD1) so that, using the material provided by the teacher, after his/her presentation of the corresponding topic, students will apply theoretical and practical cases related to the exposed subject the rest of the lesson time (MD3, MD4, MD6). Other sessions will focus on the application of the contents to real cases of companies, will have a seminar format and will be taught by external experts (MD5, MD10).

MD1- Theoretical classes participatory master class

MD3- Practical cases

MD4- Problems

MD5- Seminars

MD6- Project development (real application of learned methodologies)

MD10- Expert conferences



For the processing of information through the use of Generative Artificial (AI) tools, the following considerations must be taken into account:

- As a general rule, GAI tools may not be used to achieve the main objective of assessment activities
- Teachers will explicitly indicate under what conditions and for what type of activities the use of GAI is permitted or restricted.
- If students have received authorization from the teachers to use AI tools, they must indicate in each case the source and prompts used, as well as the parts of the work that were affected.

EVALUATION

The evaluation of the subject will be carried out through:

- the evaluation of the attendance and participation of the student in the different sessions (10%). This part of the assessment CANNOT be retaken in the second sitting of the course.
- the realization and defense of a(several) work(s) from Lean management, 5S's and 6 Sigma, taught by external teachers, in which the contents taught throughout in these sessions will be applied (30%). The grade for these sessions is conditioned to the submission of the required assignment(s) and attendance at all sessions. This part of the assessment CANNOT be retaken in the second sitting of the course.
- the evaluation of the written test(s) and/or individual work (60%).

It is not possible to obtain less than 50% in each of the following sections: "the realization and defense of a (several) work(s) from Lean management, 5S's and 6 Sigma, taught by external teachers, in which the contents taught throughout in these sessions will be applied " and "the evaluation of the written test(s) and/or individual work" to pass the subject.

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