

Academic Year: ( 2023 / 2024 )

Review date: 24-05-2023

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: ISASI SANCHEZ, LUIS

Type: Electives ECTS Credits : 3.0

Year : 1 Semester : 2

## OBJECTIVES

Competence to design and manage production systems

Capability to analyze the relationship between a product's design and the traits of its production process

Understanding of the key Operations Management concepts and techniques in industrial environments

## DESCRIPTION OF CONTENTS: PROGRAMME

- \* Operations Management
- \*\* The Operations Management subsystem
- \* Typology of production processes.
- \*\* Products vs. processes
- \* Inventory management
- \*\* Independent stochastic demand
- \*\* Inventory management models
- \* Dependent demand.
- \*\* Material Requirements Planning (MRP)
- \*\* Finite and infinite capacity planning
- \* Constraints theory
- \*\* Application of Constraints theory in Operations environment
- \*\* Application of Constraints theory in Project environment
- \* Lean Systems
- \*\* Just in Time
- \*\* From Lean Production to Lean Management

## LEARNING ACTIVITIES AND METHODOLOGY

Lectures, exercises, practical sessions, cases and assignments to be carried out by the students and discussed during the sessions, readings assigned by the instructor or identified by the students.

## ASSESSMENT SYSTEM

Continuous evaluation + Final written exam.

In the extraordinary (make-up) evaluation, continuous evaluation grade will only be taken into account if this leads to a higher grade.

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

## BASIC BIBLIOGRAPHY

- Chase, R.B.; Aquilano, N.J.; Jacobs, F.R. Administración de Operaciones. Producción y Cadena de suministros, McGraw-Hill, 2009 - Ed. 12

## ADDITIONAL BIBLIOGRAPHY

- Jacobs, F.R.; Berry, W.L.; Whybark, D.C.; Vollmann, Th.E. Manufacturing Planning and Control Systems for Supply Chain Management., Mc Graw Hill, 2010 - Ed. 6
- Santos, J.; Wysk, R.; Torres, J.M. Mejorando la producción con lean thinking., Pirámide., 2010
- Schroeder, R. G. Administración de Operaciones. Concepto y Casos Contemporáneos. , Mc Graw Hill. , 2011- Ed.

