

Academic Year: (2022 / 2023)

Review date: 17-05-2022

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: RIVERA RIQUELME, FRANCISCO ANTON

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

OBJECTIVES

- Knowledge and understanding of Production Systems and Industrial Organization.
- Ability to identify engineering problems within the industrial field, to establish different resolution methods and to select the most appropriate one for their solution.
- Ability to apply their knowledge and understanding to solve problems and design processes in the field of Industrial Engineering in accordance with criteria of cost, quality, safety, efficiency and respect for the environment.

DESCRIPTION OF CONTENTS: PROGRAMME

Manufacturing Planning and Control Systems (MPC)
 Aggregate Production Planning
 Dependent Demand Inventory Systems
 Material Requirements Planning (MRP)
 Capacity Management
 Master Production Schedule (MPS)
 Shop Floor Control
 Theory of Constraints (TOC)
 Push, Pull and CONWIP Systems

LEARNING ACTIVITIES AND METHODOLOGY

Lectures, exercises and practical sessions. Face-to-face tutorials.

ASSESSMENT SYSTEM

60% Final written exam.

40 % Continuous evaluation. One partial exam will be held. Attendance to the practical sessions.

% end-of-term-examination: 60

% of continuous assessment (assignments, laboratory, practicals...): 40

BASIC BIBLIOGRAPHY

- Vollmann, T.E.; Berry, W.L.; Whybark, D.C.; Jacobs, F.R. Manufacturing Planning and Control for Supply Chain Management, McGraw-Hill, 2005

ADDITIONAL BIBLIOGRAPHY

- Chase, R.B.; Jacobs, F.R.; Aquilano, N.J Administración de operaciones: producción y cadena de suministros, McGraw-Hill, 2014
- Schroeder, R.G.; Goldstein, S.M.; Rungtusanatham, M.J Administración de operaciones: conceptos y casos contemporáneos, McGraw-Hill, 2011
- Silver, E.A.; Pyke, D.F.; Thomas, D.J Inventory and Production Management in Supply Chains, CRC Press. Taylor & Francis Group, 2017