

Academic Year: ( 2019 / 2020 )

Review date: 01-05-2019

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: RIVERA RIQUELME, FRANCISCO ANTON

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

**REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)**

No prerequisites.

**OBJECTIVES**

- Identify the need of Manufacturing Planning and Control Systems and know their characteristics.
- Differentiate the adequacy of such systems and tools to different types of business.

**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, practical sessions, cases and assignments to be carried out by the students and discussed during the sessions, complementary readings.

**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. Sistemas de planificación y control de la fabricación, Irwin, 1995

**ADDITIONAL BIBLIOGRAPHY**

- Chase, R.B.; Jacobs, F.R.; Aquilano, N.J. Administración de operaciones: producción y cadena de suministros, McGraw-Hill, 2009
- Schroeder, R.G. Administración de operaciones: conceptos y casos contemporáneos, McGraw-Hill, 2011
- Silver, E.A.; Pyke, D.F.; Peterson, R. Inventory management and production planning and scheduling, John Wiley and Sons, 1998