

Información del Plan Docente

Academic Year	2017/18
Faculty / School	110 - Escuela de Ingeniería y Arquitectura
Degree	531 - Master's in Chemical Engineering
ECTS	4.5
Year	1
Semester	Second semester
Subject Type	Compulsory
Module	---

1.General information**1.1.Introduction****1.2.Recommendations to take this course****1.3.Context and importance of this course in the degree****1.4.Activities and key dates****2.Learning goals****2.1.Learning goals****2.2.Importance of learning goals****3.Aims of the course and competences****3.1.Aims of the course****3.2.Competences****4.Assessment (1st and 2nd call)****4.1.Assessment tasks (description of tasks, marking system and assessment criteria)****5.Methodology, learning tasks, syllabus and resources****5.1.Methodological overview**

The proposed methodology enhances continuous work and analysis skills and it focuses on the most practical content of the course. With the whole group of students, the most theoretical contents will be taught and some additional practical applications will be discussed. These sessions will provide them with knowledge and capabilities in order to conduct the different case studies. The cases were selected for the students to apply along the course different techniques around production planning and control as well as quality management. The assessment is mainly focused on the practical elements of the course.

5.2.Learning tasks

The course includes the following learning tasks:

Section 1. Production planning and control

- Lectures (6 hours). The main theory will be taught and problems will be solved accordingly.
- Case study discussion and problem solving (4 hours). Those will be based on the theory developed in the lectures.
- Laboratory sessions (5 hours). The student will deep into the different concepts explained in lectures.
- Practical assignment (7 hours). This is the average time devoted to solve the practical assignment proposed to the student in an autonomous way outside the class.
- Tutorials (1 hour). Individual meeting to follow-up the evolution of the practical assignments.
- Study (25 hours). It refers to the average time devoted to self-learning and exam preparation.
- Exam (3 hours). It includes examination and presentation of case studies.

Section 2.Quality management

- Lectures (9 hours). The theory of the proposed topics will be taught.
- Problems and practical cases (6 hours). In these classes the problems or practical cases will be solved by students supervised by the professor. Problems or cases will be related to the theoretical part explained in lectures.
- Laboratory sessions (10 hours). The student will consolidate the contents developed in the lectures.
- Implementation of practical cases (8 hours). Individual or in group.
- Tutorials (1.5 hours).
- Study (20 hours).
- Assessment (2 hours).
- Visits to companies (5 hours).

5.3.Syllabus

The course will address the following topics:

Section 1. Production planning and control

1. Introduction to Production planning and control (2h)
2. Supply chain management (2h)
3. Demand management (1h)
4. Inventory management (1h)
5. Production planning and control techniques (4h)
6. Business process re-engineering (1h)
7. Health and safety applied to production settings (1h)
 - Exam production planning and control (1h)
 - Presentation of practical assignments (2h)

Section 2. Quality management

1. Introduction to Quality Management Systems (14 h)
2. Functions in industrial quality assurance (4 h)
3. Quality measurement: methods and equipment for inspection and test (5 h)
4. Integration of Management Systems (2h)
 - Exam (2 h)

5.4.Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the EINA website.

5.5. Bibliography and recommended resources

- BB** Abril Sánchez, Cristina Elena. Manual para la integración de sistemas de gestión : Calidad, Medio Ambiente y Prevención de riesgos laborales / Cristina Elena Abril Sánchez, Antonio Enríquez Palomino, José Manuel Sánchez Rivero . - [1a ed.] Madrid : FC Editorial, 2006
- BB** Chopra, Sunil. Administración de la cadena de suministro : estrategia, planeación y operación / Sunil Chopra, Peter Meindl ; traducción Rodolfo Navarro Salas, Jesús Elmer Murrieta Murrieta ; revisión técnica Eric Porras, Marco Antonio Montúfar Benítez . - [2ª ed. en español] Naucalpan de Juárez (Estado de México) : Pearson Educación, 2013
- BB** Gatell Sánchez, C.. Exito de un sistema integrado / Gatell Sánchez, C. y Pardo Álvarez, J.M. Aenor, 2014.
- BB** Pfeifer, Tilo. Manual de gestión e ingeniería de la calidad / Tilo Pfeifer, Fernando Torres . - 1ª. ed. española act. y amp., 1ª reimp. Zaragoza : Mira, 2002
- BB** Vollmann, T.. Planeación y control de la producción, Administración de la cadena de suministros / Vollmann T., Berry W., Whybark D.C. and Jacobs F.R McGraw Hill, 2005.
- BC** Abad Puente, J.. Aspectos clave de la integración de sistemas de gestión / Abad Puente, J y Sánchez-Toledo Ledesma, A Editorial: AENOR. 2012
- BC** Alberca, M.P.. Dirección y gestión de la producción / Alberca, M.P., Rodrigo C. Uned
- BC** Ballou, Ronald H.. Logística empresarial : control y planificación / Ronald H. Ballou ; traducción, Ramón Pérez Muñoz, Pilar Rubio de Lemus ; revisión, Manuel Garrido Pérez Madrid : Díaz de Santos, D.L. 1991

LISTADO DE URLs:

Guía técnica para la evaluación y prevención de los riesgos relativos a la utilización de lugares de trabajo. INSHT - [<http://www.insht.es/portal/site/Insht/menuitem.1f1a3bc79ab34c578c2e888406096>]

Guía técnica para la integración de la prevención de riesgos laborales. INSHT - [<http://www.insht.es/portal/site/Insht/menuitem.1f1a3bc79ab34c578c2e888406096>]

LEY 31/1995, de 8 de noviembre, de Prevención de Riesgos Laborales. BOE nº 269 10/11/1995 -

66216 - Production and Quality Management

[<http://www.insht.es/portal/site/Insht/menuitem.1f1a3bc79ab34c578c2e888406096>]