

66216 - Production and Quality Management

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	531 - Master's in Chemical Engineering
ECTS	4.5
Course	1
Period	Second semester
Subject Type	Compulsory
Module	---

1. Basic info

1.1. Recommendations to take this course

1.2. Activities and key dates for the course

2. Initiation

2.1. Learning outcomes that define the subject

2.2. Introduction

3. Context and competences

3.1. Goals

3.2. Context and meaning of the subject in the degree

3.3. Competences

3.4. Importance of learning outcomes

4. Evaluation

5. Activities and resources

5.1. General methodological presentation

The learning process that is designed for this subject is based on the following:

The proposed methodology enhances the continuous work and analysis and it focuses in the most practical content of the matter. With the overall group, the most theoretical contents will be taught and some additional practical applications will be discussed. The sessions will provide 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 evaluation is mainly focused around the practical elements of the subject. The course intends to enhance both the individual efforts as well as the continuous work.

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5.2.Learning activities

The syllabus offered in order to help to achieve the learning outcomes, includes the following activities:

1. Production planning and control

Master classes (6h face-to-face): the main theory will be taught and problems will be solved accordingly.

Case studies discussion and problem solving (6h face-to-face): those will be based on the theory developed in the master classes.

Laboratory sessions (5h): where the student will deep into the different concepts managed in the master classes.

Practical assignment (7h not face-to face): this is the average time devoted to solve the practical assignment proposed to the student.

Follow-up with the students of the practical assignments: personal recitations where the evolution of the practical assignments.

Study (25h no face-to-face or remotely): it refers to the average time devoted to self-learning and exam preparation.

Evaluation exam (2h face-to-face): the estimated time for the exam is 2h approximately, unless the students will follow the global text and then it will take maximum 5h.

2. Quality management

* Lectures (13 h) where the theory of the various issues that have been proposed will be taught.

* Problems and practical cases (12 h). In these classes the problems or practical cases will be resolved by students supervised by the professor. Problems or cases will be related to the theoretical part which explained in lectures.

* Individual or in group work (15.5 h).

* Individual study (20 h).

* Evaluation (2 h).

5.3.Program

Production planning and control

1. Introduction to Production planning and control
2. Supply chain management
3. Demand management

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4. Inventory management
5. Production planning and control techniques
6. Business process re-engineering
7. Health and safety applied to production settings

Quality management

1. Introduction to Quality Management Systems.
2. Functions in industrial quality assurance
3. Quality measurement: methods and equipment for inspection and test.
4. Integration of Management Systems

5.4.Planning and scheduling

5.4. Planning and Scheduling

Schedule of the master classes and presentation of practical assignments

The master classes and the problem solving sessions will be scheduled according to the calendar established every academic year. Additionally, each instructor will inform about his or her schedule for recitations. The topics included in the course are the following:

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)

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Exam production planning and control (1h)

Presentation of practical assignments (2h)

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.)

5.5.Bibliography and recommended resources

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|-----------|--|
| 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 : |

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