

66213 - Environmental Management in Industry

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	531 - Master's in Chemical Engineering
ECTS	6.0
Course	1
Period	First 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 designed for this course is based on the following:

The learning process will take place at several levels: lectures, problem solving (cases), special practices (visits to companies ...), continuous work, academic work, with increasing level of student participation. In the theory classes, they are going to be developing the theoretical bases of the course and solving some model problems. The kinds of problems and cases and visits to industries are the effective complement to the lectures, and allow to verify understanding of matter and also help to develop in students a viewpoint more applied. Finally, academic work and public defense, will complement the above.

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5.2.Learning activities

The program of the course includes the following activities:

Lectures (25 h) where the theory of the various issues that have been proposed will be taught and problems will be solved.

Classes of case and problems (20 h). In these classes, problems will be solved by students supervised by the professor. Problems or cases will be related to the theoretical part explained in lectures.

Visits to industries (15 h), experts conferences, thematic seminar or similar, etc ... as a training complement to the above activities

Application work (25 h non-presential), individual or preferably group. Different subjects will be proposed by teachers or by the students.

Individual study (49 h non-presential). It is recommend to students to study continuously throughout the semester. Personal tutoring teacher- student (10 hours).

Evaluation (6 h). There will be a global exam where the theoretical and practical knowledge gained by the student will be assessed.

5.3.Program

BLOCK 1. INTRODUCTION

1. Distribution of competences between administrations
2. Regulation of business-administration relations

BLOCK 2. ADMINISTRATIVE AUTHORIZATIONS

3. Regime of administrative authorizations and requirements: waste, air, waste and soil
4. Integrated Environmental Authorizations
5. Promotion of environmental activities: environmental taxes and environmental investment certificates

BLOCK 3. BEST AVAILABLE TECHNIQUES (BAT)

6. Environmental impact of industries in various sectors. Application of Best Available Techniques (BAT)

BLOCK 4. MANAGEMENT SYSTEMS

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7. Environmental management systems: EMAS and ISO 14001

5.4.Planning and scheduling

The lectures and problem solving classes will be held according to the schedule established by the School of Engineering and Architecture (EINA).

The work will be presented at a public session in the last classroom hours.

5.5.Bibliography and recommended resources

- BB** Carretero Peña, Antonio. Aspectos ambientales : identificación y evaluación / Antonio Carretero Peña . - [2ª ed.] Madrid : AENOR, D. L. 2007
- BB** Gestión ambiental . - 3ª ed. Madrid : AENOR, 2011

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