

27237 - Industrial Organic Chemistry

Información del Plan Docente

Academic Year	2016/17
Academic center	100 - Facultad de Ciencias
Degree	452 - Degree in Chemistry
ECTS	5.0
Course	4
Period	Second semester
Subject Type	Optional
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

5.2. Learning activities

5.3. Program

-General aspects of chemical industry in the world and in Spain.

-Sources for energy and raw materials.

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- Basic chemicals derived from petroleum and natural gas.
- Chemicals from coal and other sources.
- Alternatives to Petrochemistry: renewable raw materials.
- Industrial catalysts.
- Polymer industry.
- Pharmaceutical chemistry.
- Agrochemicals and pesticides.
- Food industry.
- Tensioactive agents. Detergents.
- Dyes and pigments.
- Cosmetics and hygiene. Perfumes.
- Industry of paper and derivatives.
- Explosives, propellants and detonators.
- Enology.
- Solvents.
- Adhesives.
- Chemicals and pollution. Alternative processes with lower environmental impact. Energy saving. Sustainable chemistry.

5.4.Planning and scheduling

5.5.Bibliography and recommended resources

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- BB** H. A. Wittcoff, B. G. Reuben, J. S. Plotkin. Industrial Organic Chemicals. - 3rd. ed. Wiley. 2013
- BB** Weissermel, Klaus. Industrial Organic Chemistry / Klaus Weissermel, Hans-Jürgen Arpen ; translated by Charlet R. Lindley and Stephen Hawkins . - 4th. completely rev. ed. Weinheim : Wiley-VCH, 2003
- BB** Wittcoff, Harold A.. Productos químicos orgánicos industriales. V. 1, Materias primas y fabricación / Harold A. Wittcoff, Bryan G. Reuben ; colaborador en la traducción María Teresa Aguilar Ortega ; revisión M. Cristina Pérez de Bratoeff. - [1ª ed.], 7ª reimp. México [etc.] : Limusa, cop. 2000
- BB** Wittcoff, Harold A.. Productos químicos orgánicos industriales. V.2, Tecnología, formulaciones y usos / Harold A. Wittcoff, Bryan G. Reuben ; colaborador en la traducción M. Cristina Sangenis Franchini ; revisión M. Cristina Pérez de Bratoeff . - [1ª ed.], 6ª reimp. México [etc.] : Limusa, cop. 2000
- BC** Grayson, M. (Editor). Kirk-Othmer Concise Encyclopedia of Chemical Technology. Wiley. 1985
- BC** Primo Yúfera, Eduardo. Química orgánica básica y aplicada : de la molécula a la industria / Eduardo Primo Yúfera Barcelona [etc.] : Reverté ; Valencia : Universidad Politécnica, D.L.1996

Online resources:

Federación Empresarial de la Industria
Química Española - [<http://www.feique.org>]