

SYLLABUS

1. Course description

Degree:	Biotechnology
Course:	Foundations of Biochemical Engineering
Module:	Bioengineering and the Biotechnological Processes. Biotechnological Processes
Department:	Molecular Biology and Biochemical Engineering
Academic Year:	2017/18
Term:	Second
ECTS credits:	6
Year:	2nd year
Type:	Compulsory
Language:	Spanish

Course Model:	C1	
a. Basic learning (EB):		50%
b. Practical learning (EPD):		50%

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2. Lecturers

Coordinator	
Name:	M^a Jesús de la Torre Molina
School:	School of Experimental Sciences
Department:	Molecular Biology and Biochemical Engineering
Area:	Chemical Engineering
Office Hours:	Tuesdays: 15.00-18.00 and Thursdays 11.00-14.00 (Please, contact previously through e-mail)
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3. Topics

Unit 1. INTRODUCTION.

Unit 2. BIOTECHNOLOGICAL PROCESSES.

Unit 3. UNIT OPERATIONS AND TRANSPORT PHENOMENA.

Unit 4. MASS BALANCE.

Unit 5. ENERGY BALANCE.

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4. BIBLIOGRAFÍA GENERAL

- Manual del Ingeniero Químico. McGraw-Hill (2001).
- Introducción a la Ingeniería Química. Síntesis (1999).
- Ingeniería Química. 1. Conceptos generales. Alambra (1983).
- Principios Básicos y Cálculos en Ingeniería Química". 6 ed. Prentice Hall (1997).
- Curso de Ingeniería Química. Introducción a los procesos, las operaciones unitarias y los fenómenos de transporte. Reverté (1994).
- Biochemical Engineering Fundamentals. 2ªed. McGraw Hill (1986).
- Problemas de Ingeniería Química. Aguilar (1970).
- Bioprocess Engineering. Prentice Hall (1992).
- Elementos de Ingeniería Química. Aguilar (1976).
- Ingeniería Bioquímica. Síntesis (1998).