

SYLLABUS

1. COURSE DESCRIPTION

Degree:	Biotechnology
Course:	Quality of Biotechnological Processes
Module:	Optional Training
Department:	Molecular Biology and Biochemical Engineering
Academic Year:	2017-18
Term:	First
ECTS credits:	6
Year:	4th year
Type:	Optional
Language:	Spanish

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

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2. LECTURERS

Coordinator	
Name:	Antonio Rosal Raya
School:	School of Experimental Sciences
Department:	Molecular Biology and Biochemical Engineering
Area:	Chemical Engineering
Office Hours:	Mondays, Tuesdays and Wednesdays: 8.00-9.00 and 19.30-20.30. Previous appointment through e-mail
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3. TOPICS

UNIT 1. Basic concepts. Quality historical evolution. ISO.

UNIT 2. Aspects and regulations: ISO 9001, ISO 14001 and EMAS, ISO 17025 y BPL, APPCC and ISO 22000 systems.

UNIT 3: Processes analysis and improvement. Tables, diagrams and control charts of the process quality. Dispersion and distribution. Diagrams Cause-Effect. Histograms Pareto diagrams. CUSUM graphics. Control diagrams.

UNIT 4. Quality management applied to the biotechnological industrial sector (I). Quality assurance to the process and to the product in various industrial biotechnological sectors: milk production, brewing and winemaking.

UNIT 5. Quality Management applied to the biotechnological industrial sector (II). Assurance of quality to the process and the product in various industrial biotechnological sectors: Wastewater treatment and Composting.