

SYLLABUS

1. DESCRIPCIÓN DE LA ASIGNATURA

Degree:	Biotechnology
Course:	Biometric Analysis
Module:	Quantitative Instrumental Methods and Molecular Biology Systems
Department:	Molecular Biology and Biochemical Engineering
Academic Year:	2017-2018
Term:	Second
ECTS credits:	6
Year:	3rd 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:	Laura Tomás
School:	Centro Andaluz de Biología del Desarrollo
Department:	Molecular Biology and Biochemical Engineering
Area:	Microbiology
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3. TOPICS

Topic I: Genomics

- Unit 1: The Human Genome Project.
- Unit 2: Genomics through CGH microarrays.
- Unit 3: Genomics through SNP microarrays.
- Unit 4: Genomics applications.

Topic II: Transcriptomics

- Unit 5: Transcriptome, expression analysis of complete genomes.
- Unit 6: Elaboration of microarrays *à la carte* for research and diagnosis.
- Unit 7: Transcriptomics applications.

Topic III: Other omics...

- Unit 8: Pharmacogenomics.
- Unit 9: Nutrigenomics.
- Unit 10: Massive sequencing.
- Unit 11: Metabolomics.

Topic IV: Proteomics

- Unit 12: Protein microarrays
- Unit 13: Sample preparation. Types of proteomic analysis according to the protein separation technique.
- Unit 14: Protein identification.