
	PROCESO PARA EL DESARROLLO DE LAS ENSEÑANZAS DE LA ESCUELA DE INGENIERÍAS AGRARIAS		
	CÓDIGO: P/CL009_D002		

PROGRAMME IN GENETICS AND BREEDING

Academic course: 2020-2021

Identification and characteristics of the subject				
Code	501136			Credits ECTS 6
Name (Spanish)	Genética y Mejora			
Name (English)	Genetics and Breeding			
Degree	ENGINEERING IN AGRICULTURAL AND FOOD INDUSTRIES			
Center	Agricultural Engineering School			
Semester	Fourth (4th)	Character	Compulsory	
Module	Optionality			
Subject	Common in Agricultural Branch			
Language	Spanish/English			
Professor/s				
Name	Room	e-mail	Web link	
Ángel Albarrán Liso	722	angliso@unex.es		
Sara Morales Rodrigo	729	saramoro@unex.es		
M^a Ángeles Rozas Espadas	616	marozas@unex.es		
Field of knowledge	Plant Production			
Department	Engineering of the Agricultural and Forestry Environment			
Coordinator (in case there is more than one professor)	Sara Morales Rodrigo			
Lessons and contents				
Syllabus				
<u>Lesson 1.- Nucleic acids</u>				
<u>Lesson 2.- Replication, transcription and translation of DNA</u>				
<u>Lesson 3.- Distribution of hereditary material</u>				
<u>Lesson 4.- Gene and chromosomal mutations</u>				
<u>Lesson 5.- Mendelian genetics</u>				
<u>Lesson 6.- Expansions in Mendelian genetics</u>				
<u>Lesson 7.- Inheritance sex-linked</u>				
<u>Lesson 8.- Self-pollinated plants improvement</u>				
<u>Lesson 9.- Cross-pollinated plants improvement</u>				

Lesson 10.- Clones breeding

Lesson 11.- Animal breeding

Lesson 12.- Ex-core inheritance

Lesson 13.- Regulation of gene expression

PRACTICAL SYLLABUS

Seminar #1: **Mendelian genetics applications**

Seminar #2: **Mendelian genetics application II**

Seminar #3: **Problems of different types of inheritances and epistasis**

Seminar #4: **Problems of different types of inheritances and epistasis II**

Seminar #5: **Genetics and statistics**

Seminar #6: **Animal breeding: basis and applications**

Seminar #7: **Analytical techniques in molecular biology**

Seminar #8: **Transgenics**