

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

## PROGRAMME IN FIELD CROP SCIENCE

**Academic course: 2019-2020**

Identification and characteristics of the subject					
Code	501134			Credits ECTS	6
Name (Spanish)	Fitotecnia General				
Name (English)	Field Crop Science				
Degree	ENGINEERING IN AGRICULTURAL AND FOOD INDUSTRIES				
Center	Agricultural Engineering School				
Semester	First (3º)	Character	Compulsory		
Module	Common Module of the Agricultural Branch				
Subject	Bases of the Vegetal Production				
Language	Spanish				
Teacher/s					
Name	Room	e-mail	Web link		
José Antonio Rodríguez Bernabé	D 715	jantonio@unex.es	Aula virtual		
M <sup>a</sup> José Poblaciones Suárez-Bárcena	D 724	majops@unex.es			
Field of Knowledge	Vegetal Production				
Department	Agronomic and Forestry Environment Engineering				
Coordinator (in case there is more than one professor)	José Antonio Rodríguez Bernabé				
Lessons and contents					
Syllabus					
<p><b>SECTION I.- BASIS ON PLANT GROWTH AND DEVELOPMENT: CLIMATIC FACTORS AND COMPETITION IN AGRICULTURAL PRODUCTION</b></p> <p><b><u>Lesson 1.- Growth and development of cultivated plants: Involved factors.</u></b></p> <p><b><u>Lesson 2.- Photosynthesis.</u></b></p> <p><b><u>Lesson 3.- Climatic needs, temperature and development flows, humidity in crops.</u></b></p> <p><b><u>Lesson 4.- Water needs of the crops.</u></b></p>					

**Lesson 5.- Plant irrigation. Hydric shortage**

**Lesson 6.- Competence of weeds. Physiological damage in crops**

**SECTION II: AGRICULTURE AND THE ENVIRONMENT. MODELS AND EXPERT SYSTEMS**

**Lesson 7.- Introduction to agroecosystems, agriculture and the environment. Decision making**

**SECTION III: FACTORS OF AGRICULTURAL PRODUCTION (II)**

**Lesson 8.- Crop rotation.**

**Lesson 9.- Tillage and soil conservation systems**

**Lesson 10.- Sowing and planting: date, density and rates**

**Lesson 11.- Fertilizers: nitrogen, phosphorous, potassium and macro and micronutrients.**

**Lesson 12.- Organic matter.**

**Lesson 13.- Acid, saline and sodic soils.**

**PRACTICAL SYLLABUS**

Practical lesson 14: **Estimation of damages. Phenology and competition of weeds. Visual identification of the most common adventitious weeds in crops**

Practical Lesson 15: **Morphology (measurement of phasic growth, development and production**

Practical Lessons 16-17: **Calculation of the water needs of crops**

Practical Lesson 18: **Germination of seeds.**

Practical Lesson 19: **Visual identification of fertilizers and nutrient deficiency symptoms.**

Practical Lesson 20-21: **Crop fertilization determination**

Practical Lesson 22: **Field Trip: Agronomy practices**