

Academic Year/course: 2022/23

## 28959 - Integrated production and agroecology

### Syllabus Information

**Academic Year:** 2022/23

**Subject:** 28959 - Integrated production and agroecology

**Faculty / School:** 201 - Escuela Politécnica Superior

**Degree:** 583 - Degree in Rural and Agri-Food Engineering

**ECTS:** 5.0

**Year:** 4

**Semester:** Second semester

**Subject Type:** Optional

**Module:**

### 1. General information

### 2. Learning goals

### 3. Assessment (1st and 2nd call)

### 4. Methodology, learning tasks, syllabus and resources

#### 4.1. Methodological overview

The course will address the following topics:

- Lectures in the classroom.
- Practical sessions in lab.
- Tutorial sessions.
- Field visits.

#### 4.2. Learning tasks

The course includes the following learning tasks:

- I. Crop ecology. Theoretical and practical lessons
- II. Legislation and standards for integrated production and agroecology Theoretical and practical lessons
- III. Resource management Theoretical and practical lessons. Field visit

#### 4.3. Syllabus

**The course will address the following topics:**

##### **Theory Programme**

- I. Crop ecology
  - a. Introduction: Sustainability of agricultural systems
  - b. Community concepts
- II. Legislation and standards for integrated production and agroecology
  - a. Integrated production
  - b. Ecological agriculture
- III. Resource management

- a. Soil management
- b. Water management
- c. Vegetation cover management
- d. Integrated crop protection

#### Practical programme

- I. Characterisation of the initial situation: Surveys
- II. Detecting problematic situations
- III. Handling alternatives
- Field visit

#### 4.4. Course planning and calendar

Week	1	2	3	4	5	6	7	SS	8	9	10	11	12	13	14	15
Session	I-a	I-b	II a	II-b	III-a	III-b	III-b		III-c	III-d	III-d					
Hours	2	2	2	2	2	2	2		2	2	2					
Practical sessions	I	I		II	II	II	III		III	III	III	III	III	III	III	
Hours	2	2		2	2	2	2		2	2	2	2	2	2	2	
Field visit			V-1													
Hours			4													
Evaluation																3
Personal work	5	5	5	3	3	3	4	6	4	4	4	4	4	4	6	8
TOTAL	9	9	11	7	7	7	8	6	8	8	8	6	6	6	8	11

#### 4.5. Bibliography and recommended resources

- BB** Agroecología y desarrollo : aproximación a los fundamentos agroecológicos para la gestión sustentable de agrosistemas mediterráneos / Juana Labrador Moreno, Miguel Ángel Altieri (coordinadores) . Cáceres : Universidad de Extremadura ; Madrid : Mundi- Prensa, 2001
- BB** Fernández Ales, Rocío. Ecología para la agricultura / Rocío Fernández Alés, María José Leiva Morales . Madrid [etc.] : Mundi-Prensa, 2003
- BB** Gliessman, Stephen R.. Agroecología : procesos ecológicos en agricultura sostenible / Stephen R. Gliessman . Turrialba : CATIE , 2002
- BB** Loomis, R.S.. Ecología de cultivos : Productividad y manejo en sistemas agrarios / R.S. Loomis, D.J. Connor . Madrid : Mundi-Prensa, 2002
- BB** Powers, Laura E.. Principios ecológicos en agricultura / Laura E. Powers, Robert McSorley ; traducido por Alfredo Pozuelo. . Madrid : Paraninfo, Thomson Learning, 2001
- BC** Agricultura sostenible / coordinadores, Rafael M. Jiménez Díaz y Jaime Lamo de Espinosa . Madrid : Mundi-Prensa : Agrofuturo : Life, 1998
- BC** Agroecology / [edited by] C. Ronald Carroll, John H. Vandermeer, Peter Rosset . New York ; London : McGraw-Hill, c1990
- BC** Carrero, José María. Lucha integrada contra las plagas agrícolas y forestales / José María Carrero . Madrid : Mundi-Prensa, 1996
- BC** Dajoz, Roger. Tratado de ecología / Roger Dajoz ; traducción y revisión técnica María José Leiva Morales . 2ª ed., rev. y amp. Madrid : Mundi-Prensa, 2002
- BC** La práctica de la agricultura y ganadería ecológicas / [autores: Itziar Aguirre Jiménez... [et al.]] . 2ª ed. Sevilla

: Comité Andaluz de Agricultura Ecológica, 2002

**BC** Margalef, Ramón. Ecología / Ramón Margalef . 10a reimp. Barcelona : Omega, cop. 2005

The updated recommended bibliography can be consulted in:  
<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=28959>