

Year : 2018/19

28934 - Ornamental crops

Syllabus Information

Academic Year:	2018/19
Subject:	28934 - Ornamental crops
Faculty / School:	201 -
Degree:	437 - Degree in Rural and Agri-Food Engineering
ECTS:	6.0
Year:	3
Semester:	Second semester
Subject Type:	Compulsory
Module:	---

General information

Aims of the course

Context and importance of this course in the degree

Recommendations to take this course

Learning goals

Competences

Learning goals

Importance of learning goals

Assessment (1st and 2nd call)

Assessment tasks (description of tasks, marking system and assessment criteria)

Methodology, learning tasks, syllabus and resources

Methodological overview

This course develops knowledge of ornamental crop production. Special emphasis will be placed on (1) nursery in-ground and protected cultivation techniques including and irrigations, fertilization and light management, and (2) cut flower production, biotechnological methods and cultural practices associated

Learning tasks

Theoretical dissertation, practical sessions, written coursework, and formal examinations related to ornamental crops production.

Syllabus

Theoretical Programme

Block I. Economic importance of ornamental species.

Production of ornamental flowers and plants in Europe. Production of ornamental flowers and plants in Spain. Production centres. Surfaces. Value and characteristics of production. Marketing systems and formats. Market evolution. Foreign trade. (2 hours.)

Block II. Materials and facilities.

Substrata for ornamental plant cultivation. Containers. Premises. Irrigation and fertigation systems. Climatic control. Special facilities. (6 hours.)

Block III. Cultural practices: propagation and cultivation methods.

Propagation: seeds, cuttings, bulbs, layering. Planting out, transplants. Pinching and pruning. Application of hormones and similar products. Application of biotechnology to the production of ornamental plants. Plagues and diseases. Dispatch. (8 hours).

Block IV- Cultivation of ornamental species for cut flower production.

Floriculture. Woody plants; rose cultivation. Herbaceous plants; carnation cultivation. Bulbous plants; gladioli cultivation. Other cut flower species of interest at a national level. (6 hours).

Block V- Cultivation of ornamental species for live plant production.

Growing in plantpots; interior and exterior plants. Ornamental trees and shrubs. Growing bulbs. Regulations and quality standards for ornamental production. (8 hours).

Practical Programme

1- Practical laboratory experience. (20 hours)

Practical experience in laboratory/greenhouse; propagation. Recognition of substrata, containers and materials relating to ornamental cultivation. Recognition of cut flower species. Recognition of ornamental trees. Recognition of ornamental shrubs. Recognition of ornamental bulbs. Recognition of grasses, creepers and ground cover.

2- Visits to commercial ornamental plant nurseries. (16 hours)

Field trips are considered to be a cross-curricular educational activity. Their specific programming will take place over the duration of the course and will be published on the Moodle platform of each specific subject. Where possible, the technical visits will be coordinated with other course subjects with the objective of optimising resources.

Course planning and calendar

Week	1	2	3	4	5	6	7	SS	8	9	10	11	12	13
Lectures	Bl. I	Bl. II	Bl. II	Bl. II	Bl. III	Bl. III	Bl. III		Bl. III	Bl. IV	Bl. IV	Bl. IV	Bl. V	Bl. V
Hours	2	2	2	2	2	2	2		2	2	2	2	2	2
Laboratory sessions														
Hours		2				2	2		2	2				
Technical visits	visits 1 , 2, 3								visits 4,5,6					
Hours	10								10					
Individual work	5	4	5	8	5	5	5	8	5	5	5	5	5	4

Bibliography and recommended resources

BB

Flora ornamental española : plantas cultivadas en la España peninsular e insular. Vol.1, Magnoliaceae a Casuarinaceae / coordinador, José Manuel Sánchez de Lorenzo Cáceres . Sevilla : Junta de Andalucía, Consejería de Agricultura y Pesca ; Madrid : Mundi-Prensa ; Madrid : Asociación Española de Parques y Jardines Públicos, 2000

BB

Flora ornamental española : plantas cultivadas en la España peninsular e insular. Vol.2, Cactaceae- Cucurbitaceae / coordinador, José Manuel Sánchez de

	Lorenzo Cáceres . Sevilla : Junta de Andalucía, Consejería de Agricultura y Pesca ; Madrid : Mundi-Prensa ; Madrid : Asociación Española de Parques y Jardines Públicos, 2000
BB	Guía de árboles y plantas de jardín : las plantas idóneas para jardín / asesores Tony Rodd y Geoff Bryant. Barcelona : Omega, cop. 2009
BB	Material vegetal en paisajismo mediterráneo. Vol. 1 : Máster en Jardinería y Paisaje : Valencia, noviembre 2011 / editores Juan José Galán Vivas, Vicente Caballer Mellado. Valencia : Universitat Politècnica de València, 2012
BB	Sánchez de Lorenzo Cáceres, José Manuel. Guía de las plantas ornamentales / José Manuel Sánchez de Lorenzo Cáceres . Madrid [etc.] : Ediciones Mundi-Prensa, 2001
BB	Urrestarazu Gavilán, Miguel. Manual práctico del cultivo sin suelo e hidroponía / [Miguel Urrestarazu Gavilán] . Madrid : Mundi-Prensa, D.L. 2015
BC	Normas Tecnológicas de Jardinería y Paisajismo [Recurso electrónico] : NTJ / Colegio Oficial de Ingenieros Técnicos Agrícolas y Peritos Agrícolas de Cataluña . Barcelona : Colegio Oficial de Ingenieros Técnicos Agrícolas y Peritos Agrícolas de Cataluña, 2003-2007
BC	NTJ 03S (1999). Sustentación artificial y protección del arbolado. Barcelona: Colegio Oficial de Ingenieros Técnicos Agrícolas de Cataluña
BC	NTJ 08E (1994). Trasplante de grandes ejemplares. Barcelona: Colegio Oficial de Ingenieros Técnicos Agrícolas de Cataluña
BC	NTJ 11E (1999). Cubiertas ecológicas extensivas. Barcelona: Colegio Oficial de Ingenieros Técnicos Agrícolas de Cataluña
BC	NTJ 12S (2012). Obras de bioingeniería: técnicas de protección superficial. Parte 1. Barcelona: Colegio Oficial de Ingenieros Técnicos Agrícolas de Cataluña
BC	NTJ 14B (2013). Mantenimiento de palmeras. Barcelona: Colegio Oficial de Ingenieros Técnicos Agrícolas de Cataluña
BC	Stoecklein, Marc C.. The complete plant selection guide for landscape design / Marc C. Stoecklein . 2nd. ed. West Lafayette (Indiana) : Purdue University Press, cop. 2011

LISTADO DE URLs:

Guía visual de plantas de Jardín -
[\[http://www.guiaverde.com/downloads/mmd_es/index.html#/2/zoomed\]](http://www.guiaverde.com/downloads/mmd_es/index.html#/2/zoomed)

The updated recommended bibliography can be consulted in:
<http://psfunizar7.unizar.es/br13/egAsignaturas.php?id=8095>