

**1. General information****Course:** BOTANY**Type:** CORE COURSE**Degree:** 340 - UNDERGRADUATE DEGREE PROGRAMME IN ENVIRONMENTAL SCIENCES**Center:** 501 - FACULTY OF ENVIRONMENTAL SCIENCES AND BIOCHEMISTRY**Year:** 1**Main language:** Spanish**Use of additional languages:****Web site:****Code:** 37306**ECTS credits:** 6**Academic year:** 2019-20**Group(s):** 40**Duration:** C2**Second language:** English**English Friendly:** Y**Bilingual:** N**Lecturer:** MARIA ROSA PEREZ BADIA - Group(s): 40

Building/Office	Department	Phone number	Email	Office hours
Sabatini, Despacho 0.25	CIENCIAS AMBIENTALES	ext. 5443	rosa.perez@uclm.es	Miércoles 12 a 15h Jueves 12 a 15h

Lecturer: MARIA PILAR RODRIGUEZ ROJO - Group(s): 40

Building/Office	Department	Phone number	Email	Office hours
ICAM, Despacho 0.21	CIENCIAS AMBIENTALES	5781	mpilar.rodriguez@uclm.es	Miércoles 12 a 15h Jueves 12 a 15h

Lecturer: JESUS ROJO UBEDA - Group(s): 40

Building/Office	Department	Phone number	Email	Office hours
Sabatini 1.6	CIENCIAS AMBIENTALES	5479	Jesus.Rojo@uclm.es	

Lecturer: SANTIAGO SARDINERO ROSCALES - Group(s): 40

Building/Office	Department	Phone number	Email	Office hours
Sabatini, Despacho 0.24	CIENCIAS AMBIENTALES	5465	santiago.sardinero@uclm.es	Martes 12 a 15h Miércoles 12 a 15h

2. Pre-Requisites

Not established

3. Justification in the curriculum, relation to other subjects and to the profession

Not established

4. Degree competences achieved in this course**Course competences**

Code	Description
CB01	Prove that they have acquired and understood knowledge in a subject area that derives from general secondary education and is appropriate to a level based on advanced course books, and includes updated and cutting-edge aspects of their field of knowledge.
CB02	Apply their knowledge to their job or vocation in a professional manner and show that they have the competences to construct and justify arguments and solve problems within their subject area.
CB05	Have developed the necessary learning abilities to carry on studying autonomously
E01	Ability to understand and apply basic knowledge.
E04	Ability to integrate experimental evidence found in field and/or laboratory studies with theoretical knowledge.
E05	Capacity for qualitative data interpretation
G02	Knowledge of Information and Communication Technologies (ICT).
G03	Good oral and written communication
G04	Ethical commitment and professional deontology

5. Objectives or Learning Outcomes**Course learning outcomes****Description**

Basic knowledge of plant biodiversity, its interactions with other biological systems and its environmental importance.

Basic knowledge of environmental inventory development.

Mastery of biological scientific nomenclature.

Management of biodiversity databases.

Management of keys for the taxonomic identification of plants.

Management of vegetable collection and sampling techniques.

6. Units / Contents**Unit 1:****Unit 1.1**

Unit 1.2
 Unit 1.3
 Unit 1.4
 Unit 1.5
 Unit 1.6
 Unit 1.7
 Unit 1.8
 Unit 2:
 Unit 2.1
 Unit 2.2
 Unit 2.3
 Unit 2.4
 Unit 2.5
 Unit 3:
 Unit 3.1
 Unit 3.2
 Unit 3.3
 Unit 4:
 Unit 4.1
 Unit 4.2
 Unit 4.3
 Unit 4.4
 Unit 4.5
 Unit 5:
 Unit 5.1
 Unit 5.2
 Unit 5.3
 Unit 5.4
 Unit 6:
 Unit 6.1
 Unit 6.2
 Unit 6.3
 Unit 6.4

7. Activities, Units/Modules and Methodology									
Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	R	Description	
Class Attendance (theory) [ON-SITE]	Lectures	CB01 CB05 E01 G03	0.88	22	Y	N	N		
Group tutoring sessions [ON-SITE]	Group tutoring sessions	CB01 CB05 E01 G02 G03	0.2	5	Y	N	N		
Workshops or seminars [ON-SITE]	Workshops and Seminars	CB01 CB05 E01 G02 G03	0.4	10	Y	N	N		
Laboratory practice or sessions [ON-SITE]	Practical or hands-on activities	E01 E04 E05 G04	0.6	15	Y	Y	N		
Field work [ON-SITE]	Other Methodologies	CB02 E04 E05 G04	0.2	5	Y	N	N		
Writing of reports or projects [OFF-SITE]	Guided or supervised work	CB02 CB05 E04 E05 G02 G03 G04	1.8	45	Y	Y	Y		
Study and Exam Preparation [OFF-SITE]	Self-study	CB01 CB02 CB05 E01 E04 E05 G02 G03 G04	1.8	45	N	-	-		
Final test [ON-SITE]	Assessment tests	CB01 E01 G02	0.12	3	Y	Y	Y		
Total:			6	150					
Total credits of in-class work: 2.4			Total class time hours: 60						
Total credits of out of class work: 3.6			Total hours of out of class work: 90						

As: Assessable training activity

Com: Training activity of compulsory overcoming

R: Rescheduling training activity

8. Evaluation criteria and Grading System			
Evaluation System	Grading System		Description
	Face-to-Face	Self-Study Student	
Final test	65.00%	0.00%	
Laboratory sessions	10.00%	0.00%	
Fieldwork assessment	20.00%	0.00%	
Assessment of active participation	5.00%	0.00%	
Total:	100.00%	0.00%	

9. Assignments, course calendar and important dates	
Not related to the syllabus/contents	

Hours	hours
Field work [PRESENCIAL][Other Methodologies]	5
Writing of reports or projects [AUTÓNOMA][Guided or supervised work]	40
Study and Exam Preparation [AUTÓNOMA][Self-study]	50
Final test [PRESENCIAL][Assessment tests]	3
Unit 1 (de 6):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	4
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	1
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	1
Unit 2 (de 6):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	3
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	1
Unit 3 (de 6):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	1
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	2
Unit 4 (de 6):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	1
Workshops or seminars [PRESENCIAL][Workshops and Seminars]	4
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	2
Unit 5 (de 6):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	5
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	1
Workshops or seminars [PRESENCIAL][Workshops and Seminars]	6
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	7
Unit 6 (de 6):	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	3
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	1
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	2
Global activity	
Activities	hours
Class Attendance (theory) [PRESENCIAL][Lectures]	22
Group tutoring sessions [PRESENCIAL][Group tutoring sessions]	5
Workshops or seminars [PRESENCIAL][Workshops and Seminars]	10
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	15
Field work [PRESENCIAL][Other Methodologies]	5
Writing of reports or projects [AUTÓNOMA][Guided or supervised work]	40
Study and Exam Preparation [AUTÓNOMA][Self-study]	50
Final test [PRESENCIAL][Assessment tests]	3
Total horas: 150	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
LÓPEZ GONZÁLEZ G.	Guía de los árboles y arbustos de la Península Ibérica y Baleares	Ed. Mundi-Prensa	Madrid		2002	Claves de identificación y guías ilustradas
MORENO, G. & AL.	La Guía Incafo de los hongos de la Península Ibérica	Ed. Incafo	Madrid		1986	Claves de identificación y guías ilustradas
PEINADO LORCA, M., J.M. MARTÍNEZ PARRAS & L. MONJE	El paisaje vegetal de Castilla-La Mancha	Ed. Cuarto Centenario	Toledo		2009	Texto especializado
RAVEN, P.H., EVERT, F. & EICHORN, S.E.	Biology of plants (7th ed.)	W.H Freeman and Co.	New York		2005	Texto especializado
RIVAS-MARTÍNEZ S.	Mapa de series de vegetación de España 1:400000	ICONA	Madrid		1987	Textos especializados
SALVO E.	Guía de los helechos de la Península Ibérica y Baleares	Ed. Pirámide	Madrid		1990	Claves de identificación y guías ilustradas
SITTE, P. & AL.	STRASBURGUER. Tratado de Botánica	Ed. Omega	Barcelona		2004	Bibliografía básica
TORMO, R.	Plantas y hongos http://www.plantasyhongos.es/					Recurso web
VARIOS	Herbario virtual del Mediterráneo occidental http://herbarivirtual.uib.es/					Recurso web
WIRTH V. & AL.	Guía de campo de los líquenes,	Ed. Omega	Barcelona		2004	Claves de identificación y

ALEXOPOULOS, C.J., MIMS, C.W. & BLACKWELL, M.	musgos y hepáticas Introductory mycology	John Wiley & Sons	New York	1996	guías ilustradas Texto especializado
ANTHOS	Sistema de información de las plantas de España www.anthos.es	Real Jardín Botánico, CSIC-Fundación Biodiversidad			Recurso web
BONNIER, G. & G. LAYENS	Claves para la determinación de las plantas vasculares.	Ed. Omega	Barcelona	1993	Claves de indentificación
CASTROVIEJO, S. & AL. (EDS.)	Flora Ibérica www.floraiberica.es	Real Jardín Botánico de Madrid, CSIC	Madrid	1986	Claves de identificación
CHARCO J. & AL.	Árboles y arbustos de Castilla-La Mancha	CIAMED	Ciudad Real	2008	Claves de identificación y guías ilustradas
COSTA, M., MORLA, C., SAINZ, H. (eds.)	Los bosques ibéricos	Ed. Planeta	Barcelona	1997	Texto especializado
DEVESA J.A.	Vegetación y flora de Extremadura	Ed. Universitat	Badajoz	1995	Claves de identificación y guías ilustradas
DIEGO CALONGE F. DE	Setas (Hongos)	Ed. Mundi-Prensa	Madrid	1990	Claves de identificación y guías ilustradas
FONT QUER, P.	Diccionario de Botánica	Ed. Labor	Barcelona	1993	Libro de consulta
HEYWOOD, V.H.	Flowering plants of the world. Updated edition	Oxford University Press	New York	1996	Bibliografía básica
IZCO, J. & AL.	Botánica	McGraw-Hill Interamericana	Madrid	2004	Bibliografía básica