

**1. General information****Course:** IBERIAN VEGETATION, CARTOGRAPHY AND HABITAT MANAGE**Code:** 37339**Type:** ELECTIVE**ECTS credits:** 4.5**Degree:** 340 - UNDERGRADUATE DEGREE PROGRAMME IN ENVIRONMENTAL SCIENCES**Academic year:** 2021-22**Center:** 501 - FACULTY OF ENVIRONMENTAL SCIENCES AND BIOCHEMISTRY**Group(s):** 40**Year:** 4**Duration:** C2**Main language:** Spanish**Second language:****Use of additional languages:****English Friendly:** Y**Web site:****Bilingual:** N**Lecturer:** MARIA ROSA PEREZ BADIA - Group(s): 40

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2. Pre-Requisites

Not established

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

The study of plant communities is necessary for the management and conservation of the habitats. This subject is essential for the students who in the future want work in public or private organisms or consulting companies related to the management of natural environment and its resources, protected areas (National or Natural Parks, etc.), urban and territorial planning and to carrying out studies and reports, particularly those of environmental impact.

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.
CB03	Be able to gather and process relevant information (usually within their subject area) to give opinions, including reflections on relevant social, scientific or ethical issues.
CB04	Transmit information, ideas, problems and solutions for both specialist and non-specialist audiences.
CB05	Have developed the necessary learning abilities to carry on studying autonomously
CB06	Students have developed the ability to work as a team and lead, direct, plan and supervise multidisciplinary teams
E01	Ability to understand and apply basic knowledge.
E02	Capacity for multidisciplinary consideration of an environmental problem
E03	Awareness of the temporal and spatial dimensions of environmental processes
E04	Ability to integrate experimental evidence found in field and/or laboratory studies with theoretical knowledge.
E05	Capacity for qualitative data interpretation
E06	Capacity for quantitative data interpretation
E07	Capacity to plan, manage and conserve natural resources
E13	Ability to handle software.
E18	Capacity to manage the natural environment
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

Mastery of flora and vegetation mapping techniques.

Ability to apply knowledge in the preparation of environmental inventories and in the assessment and evaluation of impacts on vegetation.

Management of flora databases and vegetation inventories.

Management of sampling techniques and classification of plant communities.

Understanding the basis for the management of protected habitat types and of European interest.

6. Units / Contents

Unit 1: Vegetation classification systems and habitat types

Unit 2: Biogeography, bioclimatology and floristic elements of the Iberian Peninsula. Endemic flora, threatened flora, and introduced and invasive flora

Unit 3: Sampling and analysis techniques of plant communities.

Unit 4: Techniques for mapping flora, vegetation and habitat types, and their environmental applications

Unit 5: Mediterranean vegetation and habitats types of the Iberian Peninsula

Unit 6: Bases of the management of the protected habitats

Unit 7: Bases of the management of urban green spaces

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures	CB01 CB02 CB03 CB04 CB05 CB06 E01 E02 E03 E04 E05 E06 E07 E13 E18 G02 G03 G04	0.67	16.75	N		The objectives and contents of each unit will be discussed. All the material will be available on the virtual platform
Laboratory practice or sessions [ON-SITE]	Practical or hands-on activities	CB01 CB02 CB03 CB04 CB05 CB06 E01 E02 E03 E04 E05 E06 E07 E13 E18 G02 G03 G04	0.7	17.5	Y	Y	Attendance at practices is compulsory and non-reschedulable
Field work [ON-SITE]	Other Methodologies	CB01 CB02 CB03 CB04 CB05 CB06 E01 E02 E03 E04 G04	0.35	8.75	Y	N	Field trips to visit several protected areas such as the Reserva de la Biosfera de La Mancha Húmeda and the Parque Nacional de Cabañeros
Practicum and practical activities report writing or preparation [OFF-SITE]	Guided or supervised work	CB01 CB02 CB03 CB04 CB05 CB06 E01 E02 E03 E04 E05 E06 E07 E13 E18 G02 G03 G04	1.5	37.5	Y	Y	Student dedication to a report summarizing all the activities carried out in the practical classes
Final test [ON-SITE]	Assessment tests	CB01 CB02 CB03 CB04 CB05 CB06 E01 E02 E03 E04 E05 E06 E07 E13 E18 G02 G03 G04	0.08	2	Y	Y	Written exam of short questions and test to assess the knowledge of theoretical contents of the course.
Study and Exam Preparation [OFF-SITE]	Self-study	CB01 CB02 CB03 CB04 CB05 CB06 E01 E02 E03 E04 E05 E06 E07 E13 E18 G02 G03 G04	1.2	30	Y	N	Study of the theoretical and practical contents that they must acquire in activities developed in the course.
Total:			4.5	112.5			
Total credits of in-class work: 1.8			Total class time hours: 45				
Total credits of out of class work: 2.7			Total hours of out of class work: 67.5				

As: Assessable training activity

Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Final test	65.00%	75.00%	Written exam of short questions and test to assess the knowledge of theoretical contents of the course.
Laboratory sessions	25.00%	25.00%	Evaluation of practices by conducting a report and an flora recognition test (visu)
Other methods of assessment	10.00%	0.00%	Evaluation of the questionnaires of the class attendance. They will be evaluated solely based on the percentage of questionnaires carried out.
Total:	100.00%	100.00%	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject, an ordinary and an extraordinary one (evaluating 100% of the competences).

Evaluation criteria for the final exam:

Continuous assessment:

The course will be evaluated through the written tests (65%), the practical report and a visual exam (25%), and questionnaires (10%). In order to pass the course, a minimum mark of 4 out of 10 must be obtained in the written test and in the practices. In any case, the course will only be considered passed if the set of all assessable activities results in a average mark of 5 or higher (out of 10).

Non-continuous evaluation:

Students who cannot attend classes regularly will be evaluate with the written tests (75%), the practical report and a visual exam (25%). In any case, the course will only be considered passed if the set of all assessable activities results in a average mark of 5 or higher (out of 10).

9. Assignments, course calendar and important dates

Not related to the syllabus/contents	
Hours	hours
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	17.5

Field work [PRESENCIAL][Other Methodologies]	8.75
Practicum and practical activities report writing or preparation [AUTÓNOMA][Guided or supervised work]	37.5
Final test [PRESENCIAL][Assessment tests]	2
Unit 1 (de 7): Vegetation classification systems and habitat types	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.25
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 2 (de 7): Biogeography, bioclimatology and floristic elements of the Iberian Peninsula. Endemic flora, threatened flora, and introduced and invasive flora	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.25
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 3 (de 7): Sampling and analysis techniques of plant communities.	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	4
Unit 4 (de 7): Techniques for mapping flora, vegetation and habitat types, and their environmental applications	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.25
Study and Exam Preparation [AUTÓNOMA][Self-study]	4.5
Unit 5 (de 7): Mediterranean vegetation and habitats types of the Iberian Peninsula	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.25
Study and Exam Preparation [AUTÓNOMA][Self-study]	4.5
Unit 6 (de 7): Bases of the management of the protected habitats	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.5
Study and Exam Preparation [AUTÓNOMA][Self-study]	4.5
Unit 7 (de 7): Bases of the management of urban green spaces	
Activities	Hours
Class Attendance (theory) [PRESENCIAL][Lectures]	2.75
Study and Exam Preparation [AUTÓNOMA][Self-study]	4.5
Global activity	
Activities	hours
Class Attendance (theory) [PRESENCIAL][Lectures]	16.75
Laboratory practice or sessions [PRESENCIAL][Practical or hands-on activities]	17.5
Field work [PRESENCIAL][Other Methodologies]	8.75
Practicum and practical activities report writing or preparation [AUTÓNOMA][Guided or supervised work]	37.5
Final test [PRESENCIAL][Assessment tests]	2
Study and Exam Preparation [AUTÓNOMA][Self-study]	30
Total horas: 112.5	

10. Bibliography and Sources						
Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Baillie, J.E.M., Hilton-Taylor	2004 IUCN red list of threatened species. A global species assessment	Gland,Switzerland & Cambridge,UK			2010	
Bañares A., Blanca G., Güemes J., Moreno J.C. & Ortiz S.	Atlas y Libro Rojo de la Flora Amenazada de España	Ministerio de Medio Ambiente			2003	
Bermejo E. & Cornejo J.M. (coords.)	Atlas y Manual de los hábitats de España	Ministerio de Medio Ambiente			2003	
Blanco E., Casado M.A. & al.	Los bosques ibéricos. Una interpretación geobotánica.	Ed. Planeta			1997	
Blondel, J., Aronson, J.,Bodiu, J.Y. & Boeuf, G.	The Mediterranean region:biological diversity through time and space.	Oxford			2010	
Carlos Fabregat & Javier Ranz (eds.)	Manual de identificación de Los hábitats protegidos en la Comunitat Valenciana. Colección Manuales Técnicos Biodiversidad, 7	Generalitat Valenciana			2015	
Loidi J. (ed.)	The Vegetation of the Iberian Peninsula	Springer		978-3-319-54784-8	2017	
Manuel Costa & Pilar Soriano	Global Strategy for Plant Conservation	Jardin Botánico. Universidad de Valencia			2011	
Martín Herrero & al.	La vegetación protegida de Castilla La Mancha.	Pub. Junta de CComunidades de Castilla La Mancha	Toledo	84-7788-281-9	2003	
Peinado M. & Martínez Parras J.M.	El paisaje vegetal de Castilla-La Mancha.	Serv. Publ.Junta de CComunidades de Castilla La			2010	

Rivas-Martínez S.	<p data-bbox="287 129 758 156">Mapa de series de vegetación de España 1:400000.</p> <p data-bbox="287 206 845 421"> http://www.magrama.gob.es/es/biodiversidad/temas http://www.magrama.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-espanol-patrimonionatural- http://www.magrama.gob.es/es/biodiversidad/temas/inventarios-nacionales/inventario-especies terrestres/ http://www.magrama.gob.es/es/biodiversidad/temas/red-natura-2000/documentos-claves-de-la-red-natura- www.unex.es/botanica </p>	<p data-bbox="845 67 1013 190"> Mancha Instituto Nacional para la Conservación de la Naturaleza </p>	1987
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