DEGREE CURRICULUM

PRESERVATION AND BIODIVERSITY

Coordination: SEBASTIA ALVAREZ, MARIA TERESA

Academic year 2021-22

PRESERVATION AND BIODIVERSITY 2021-22

Subject's general information

<table>
<tr><td>Subject name</td><td>PRESERVATION AND BIODIVERSITY</td></tr>
<tr><td>Code</td><td>102470</td></tr>
<tr><td>Semester</td><td>2nd Q(SEMESTER) CONTINUED EVALUATION</td></tr>
<tr><td>Typology</td><td>
<table>
<tr><th>Degree</th><th>Course</th><th>Character</th><th>Modality</th></tr>
<tr><td>Bachelor's Degree in Forest Engineering</td><td>4</td><td>OPTIONAL</td><td>Attendance-based</td></tr>
<tr><td>Double degree: Bachelor's degree in Forest Engineering and Bachelor's degree in Nature Conservation</td><td>4</td><td>OPTIONAL</td><td>Attendance-based</td></tr>
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<tr><td>Course number of credits (ECTS)</td><td>6</td></tr>
<tr><td>Type of activity, credits, and groups</td><td>
<table>
<tr><th>Activity type</th><td>PRACAMP</td><td>PRAULA</td><td>TEORIA</td></tr>
<tr><th>Number of credits</th><td>2.4</td><td>1.2</td><td>2.4</td></tr>
<tr><th>Number of groups</th><td>1</td><td>1</td><td>1</td></tr>
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<tr><td>Coordination</td><td>SEBASTIA ALVAREZ, MARIA TERESA</td></tr>
<tr><td>Department</td><td>HORTICULTURE, BOTANY AND LANDSCAPING</td></tr>
<tr><td>Important information on data processing</td><td>Consult this link for more information.</td></tr>
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PRESERVATION AND BIODIVERSITY 2021-22

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
NADAL GARCIA, JESUS	jesus.nadal@udl.cat	3	
SEBASTIA ALVAREZ, MARIA TERESA	teresa.sebastia@udl.cat	3	

Subject's extra information

Course / subject in the whole curriculum
The subject of Conservation and Biodiversity is an optional, 4th year of the mention of Natural Systems Management, with the main objective of applying biological knowledge about flora and fauna to the conservation and management of biodiversity and resources natural

Requirements to take it
Prerequisites: Wildlife management.

Recommendations
Material for field trips: guides to identify wildlife. Optics (binoculars and telescopes)

Competences

CB1. That students have demonstrated to possess and understand knowledge in an area of study that starts from the base of general secondary education, and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that imply knowledge from the cutting edge of your field of study

CB2. That students know how to apply their knowledge to their work or vocation in a professional way and possess the competencies that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.

CB3. That students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant issues of a social, scientific or ethical nature

CB4. That students can transmit information, ideas, problems and solutions to both specialized and non-specialized audiences

CB5. That students have developed those learning skills necessary to undertake further studies with a high degree of autonomy

CG1. Ability to understand the biological, chemical, physical, mathematical foundations and the representation systems necessary for the development of professional activity, as well as to identify the different biotic and physical elements of the forest environment and renewable natural resources susceptible to protection, conservation and exploitation in the forestry field.

CG2. Ability to analyze the ecological structure and function of forest systems and resources, including landscapes.

CG3. Knowledge of the degradation processes that affect forest systems and resources (pollution, pests and diseases, fires, etc.) and ability to use the techniques of protection of the forest environment, of forest hydrological restoration and of biodiversity conservation .

CG4. Ability to evaluate and correct the environmental impact, as well as apply environmental auditing and management techniques.

CG6. Ability to measure, inventory and evaluate forest resources, apply and develop silvicultural techniques and management of all types of forest systems, parks and recreational areas, as well as techniques for the use of timber and non-timber forest products.

CG7. Ability to solve technical problems derived from the management of natural spaces.

CG8. Ability to manage and protect populations of forest fauna, with special emphasis on those of a hunting and fish farming nature.

CG12. Ability to organize and plan companies and other institutions, with knowledge of the legislative provisions that affect them and the fundamentals of marketing and commercialization of forest products.

CG13. Ability to design, direct, prepare, implement and interpret projects and plans, as well as to write technical reports, recognition reports, evaluations, expert opinions and appraisals.

CG14. Ability to understand, interpret and adopt scientific advances in the forestry field, to develop and transfer technology and to work in a multilingual and multidisciplinary environment.

CT1. Correction in oral and written expression

CT3. Mastery of Information and Communication Technologies

CT4. Respect for the fundamental rights of equality between men and women, the promotion of Human Rights and the values of a culture of peace and democratic values

CT5. Apply the gender perspective to the functions of the professional field

CEFB6. Basic knowledge of geology and morphology of the terrain and its application in problems related to engineering. Climatology.

CEMC1. Ability to know, understand and use the principles of Forest Botany.

CEMC2. Ability to know, understand and use the principles of Forest Zoology and EntomologyCEMC4. Ability to know, understand and use the principles of Forest Ecology.

CEMC17. Ability to know, understand and use the principles of Methodology, organization and project management

CEEF7. Ability to know, understand and use the principles of Hunting and Fishing Management. Riparian Systems.

CEEF11. Ability to know, understand and use the principles of Recovery of Degraded Spaces.

Subject contents

1.- Effects of anthropic activity on the environment
2.- Diagnosis of the state of the populations.
3.- Conservation strategies.
4.- Practical work session on fauna and flora conservation websites.
5.- Threatened animal species.
6.- Wildlife census methodologies.
7.- Wildlife conservation and restoration: terrestrial habitats.
8.- Wildlife conservation and restoration: aquatic habitats.
9.- Threatened and invasive plant species.
10.- Sampling methodologies in vegetation.
11.- Conservation and restoration of flora: terrestrial habitats.
12.- Conservation and restoration of flora: aquatic habitats.

Practical activities
Field trip to areas of natural interest for the analysis of its conservation problem.

Methodology

Type of activity	Description	Face-to-face activity		Non-face-to-face activity		Evaluation	Total
		Objectives	Hours	Student work	Hours	Hours	ECTS
Theory	Master class	Main concepts	**24**	Know, understand and synthesize	**36**	**2**	
Problems and cases	Participatory class	Problem and cases resolution	**12**	Learn to solve problems and cases	**24**	**2**	
Field practices	Field practice	Execution of the practice: understand	**24**	Study and write report	**24**	**2**	
Total			**60**		**84**	**6**	**6**

Development plan

Content (estimated date)
1- Effects of anthropic activity on the environment (February 8)
2- Conservation strategies (February 9)
3-Conservation biology. Diagnosis of population status (February 10)
4-Practical session on conservation websites (February 15)
5- Distribution of plants. Endangered Species. Invaders (February 16)
6- Threatened animal species (February 17)
7-Wildlife Census Methodology (February 22)
8- Interpretation of wildlife census (February 23)
9- Vegetation sampling methodology (February 24)
10- Flora conservation and restoration (February 29)
11- Conservation and restoration of flora (II) (March 1)
12- Wildlife conservation and restoration (March 2)

Departure Terreta / Pyrenees (March 16)
Departure Colanders from Boldú / Ebro Valley (March 30)
Work exhibition
Theory test

Evaluation

Type of activity	Evaluation		Weight Rating
	Procedure	Number	(%)
Master lecture	Written test on the theory of the subject program	**1**	**40**

Problems and cases	Presentation on the cases studied to field practices	**1**	**40**
Field practices	Assistance	**2**	**20**
Total			**100**

Bibliography

Bibliografia bàsica

CAMPRODON, J. & PLANA, E. 2001. Conservación de la biodiversidad y gestión forestal. Edicions Universitat de Barcelona.

CASALS, F. & SANUY, D. (Ed.). 2006. La fauna vertebrada de les terres de Lleida. Servei de Publicacions de la UdL.

COWX, I.G & WELCOMME, R.L. 1998. Rehabilitation of rivers for fish. Fishing News Books

PRIMACK, R.B. & ROS, J. 2002. Introducción a la biología de la conservación. Ariel Ciencia.

SÁEZ, L., AYMERICH, P. & BLANCHÉ, C. 2010. Llibre vermell de les plantes vasculars endèmiques i amenaçades de Catalunya. Barcelona: Argania.