UniversidadeVigo

Subject Guide 2023 / 2024

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	G DATA			
Subject	Ecology II			
	V02G031V01306			
Study	Grado en Biología			
programme				
Descriptors	ECTS Credits	Choose	Year	Quadmester
	6	Mandatory	3rd	2nd
Teaching	Spanish			
language				
Department	Darda Camundi Japhal María			
	Aranguran Gassis María			
Lecturers	Delgado Núñez Cristina			
	Pardo Gamundi, Isabel María			
	Sobrino Garcia, Maria Cristina			
E-mail	ipardo@uvigo.es			
Web				
General description	Ecology is the science that studies the response of c each other, from individuals to the ecosystem level.	organisms to enviro This course aims t	onmental variatio o provide basic k	ns and relationships to nowledge of Ecology of
	English Friendly subject: International students may	request from the t	eachers:	
	a) resources and bibliographic references in English	, b) tutoring sessio	ns in English, c)	
	exams and assessments in English.	-	-	
	The schedules of the matter can be consulted in the	link: http://bioloxia	a.uvigo.es/es/doc	encia/horarios
Training an	d Learning Results			
Code				
A2 Student have th problem	is should know how to apply their knowledge to their v e competences that are usually proved through the e ns within their study field.	work or vocation in laboration and defe	a professional w ence of argument	ay. They also should is and the resolution of
A3 Student	is should prove ability for information-gathering and in elevant social, scientific or ethical topics.	nterpret important	data (usually wit	hin their study field) to
A4 Student audienc	s should able to communicate information, ideas, issue).	ues and solutions to	o all audiences (s	pecialist and unskilled
B2 Manage them cr	e scientific-technical information using diverse and rel itically and rigorously, including considerations on the	iable sources. Anal eir social relevance	yze data and doc and in the profes	uments and interpret ssional field of Biology.
b4 Drait ar	a and specialized areas, highlighting the competence	ology. Proceed to t s of the degree	neir presentation	and depate in the
B6 Develor	analysis and synthesis, critical reasoning and aroum	entation skills, app	lying them in Bio	logy and other
scientifi	c-technical disciplines.			
C7 Samplir ecosyst	ng, characterising, cataloguing and managing natural ems).	and biological reso	urces (populatior	ns, communities and
C8 Describ solution	e, assess and plan the physical environment, use bio- is for the control, monitoring and restoration of ecosys	indicators and ider stems.	ntify environment	al problems. Provide
C9 Identify interest	resources of biological origin and assess their efficier . Propose and implement improvements in production	nt and sustainable n systems.	use in order to ob	otain products of
C10 Identify environ	biological and biotechnological processes and their p mental fields.	otential applicatior	ns, in particular ir	health, agri-food and
D3 Commit	ment to sustainability and the environment. Equal, se	ensible and efficien	t use of resource	S
D5 Commu	nicate effectively and appropriately, including the use	e of computer tools	and English.	
Expected re	esults from this subject			
Expected res	sults from this subject			raining and Learning Results

Understand models of ecosystem development (ecological succession) and disturbance, stability and dynamic of ecosystems.	A3	B4 B6	C7 C8	D3
Apply the knowledge of the ecology to isolate, identify, handle and analyse specimens and environmental samples	A2 A3	B2 B4	C7 C10	D3
Apply knowledges and own methodologies of the ecology in different processes related with the management of the environment	A3 A4	B2 B4 B6	C8	D3 D5
Apply knowledges and relative methodologies to the ecology in appearances related with the production, exploitation, analysis and diagnostic of processes and biological resources	A3	B4 B6	C9 C10	D5
Obtain information, develop experiments and interpret results	A3	B2 B4 B6	C7 C8	D3
Comprise the social projection of the ecology and his repercussion in the professional exercise, as well as know use his contents to give teaching and do divulging	A4	B2 B4	C8	D3 D5
Know and handle the concepts, terminology and scientific instrumentation-technical relative to the ecology	A2	B4	C7 C8	D5

Contents	
Торіс	
I. Structure and organisation of communities	1. The nature of the community.
	2. Physical structure.
	3. Biological structure.
	4. Effect of the perturbations on the composition and structure of the
	communities.
II. Flow of Energy and circulation of matter in the	5. Introduction to the operation of the ecosystems. Trophic chains
ecosystem	6. Primary production.
	7. Factors that limit the primary production.
	8. Secondary production.
	9. Decomposers and detritivores.
	10. The circulation of matter in the ecosystems.
	11. Biogeochemical cycles
III. Change in the ecosystem	12. Global change
	13. Succession

Planning			
	Class hours	Hours outside the classroom	Total hours
Lecturing	31	64	95
Seminars	3	1	4
Debate	2	1	3
Laboratory practical	12	12	24
Report of practices, practicum and exte	rnal practices 0	22	22
Objective questions exam	1	0	1
Objective questions exam	1	0	1
*The information in the planning table is	s for guidance only and does n	ot take into account the het	erogeneity of the students.

Methodologies	
	Description
Lecturing	Exhibition by part of the professor of the contents related with the matter.
Seminars	 Face-to-face work guided by the destined professor to deepen in subjects related with the matter given in the lectures or complementary to this. They will study and they will analyse, by means of specific questions designed by the professor, 3 scientific articles classical of Ecology that will treat related or complementary subjects to the subjects given in the lectures. The articles are written in English. Seminars: Trophic chains. River Ecology: Introduction to practical classes Ecological succession
Debate	Open talk between groups of students. Centred in a subject of the contents of the previously tackled matter in previous lectures. Debate on the climate change

Laboratory practicalPractical work allocated to familiarise to the student with some of the technicians and
methodologies employed in Ecology.
Practices:

 1. Exit of field for the obtaining of data for practices.

 2 and 3. Fluvial metabolism. Transport and retention of solutes and particulate materials in rivers.

 Relation between consumers and resources.

Personalized assistance			
Methodologies	Description		
Lecturing	The assistance to students can be individualised and/or in groups either face-to-face or by telematic means (email, virtual campus, videoconference, Moovi forums,). Students have to request an apointment. Schedule of assistance: Isabel Pardo: Tuesday and Wednesday 11.00-13:00 pm; Cristina Sobrino: Tuesday and Thursday 12:00-14:00 pm.		
Laboratory practical	The assistance to students can be individualised and/or in groups either face-to-face or by telematic means (email, virtual campus, videoconference, Moovi forums,). Students have to request an apointment. Schedule of assistance: Isabel Pardo: Tuesday and Wednesday of 11.00-13:00 pm; Cristina Delgado: Monday and Wednesday 10:30-12:30 pm Cristina Sobrino: Tuesday and Thursday 12:00-14:00 pm.		
Seminars	The assistance to students can be individualised and/or in groups either face-to-face or by telematic means (email, virtual campus, videoconference, Moovi forums,). Students have to request an apointment. Schedule of Assistance: Cristina Sobrino: Tuesday and Thursday of 12:00-14:00 pm. Isabel Pardo: Tuesday and Wednesday 11:00-13:00 pm.		
Debate	The assistance to students can be individualised and/or in groups either face-to-face or by telematic means (email, virtual campus, videoconference, Moovi forums,). Students have to request an apointment. Schedule of Assistance: Isabel Pardo: Tuesday and Wednesday 11.00-13:00 pm.		
Tests	Description		
Report of practices, practicum and external practices	The assistance to students can be individualised and/or in groups either face-to-face or by telematic means (email, virtual campus, videoconference, Moovi forums,). Students have to request an apointment. Schedule of Assistance: Isabel Pardo: Tuesday and Wednesday 11.00-13:00 pm; Cristina Delgado: Monday and Wednesday 10:30-12:30 pm Cristina Sobrino: Tuesday and Thursday 12:00-14:00 pm.		

Assessment						
	Description	Qualification	Le	Trair arnii	ning a ng Re	nd sults
Seminars	Participation and preparation of the works proposed by the professor for the specific subject of each seminar.	7	A3	B2	C8	D5
Debate	Preparison, assistance and participation in the debate	5	A2 A3 A4	B2 B4 B6	C9	D5
Laboratory practical	Assessment of the performance in field and laboratory work, and of the methods employed during the practices as well as of the capacity for the work in group.	1	Ă3	B2	C7	D3
Report of practices practicum and external practices	Written, defence and discussion of the results obtained in practices. It will be valued the quality and depth of the work and analysis of data, the graphic quality and clarity, and the participation in the discussions.	I 24	A2 A3	B2 B4 B6	C7 C8 C10	D3 D5
Objective question exam	sThis first part, which will be done in writing in March, will consist of a series of objective questions related to the first part of content (Topics 1-7) taught during the master classes.	30	A2	B2 B6	C9 C10	D5
Objective question exam	sThis second part, which will be carried out in writing at the end of the four-month period with classes, will consist of a series of objective questions related to the second part of the two contents (Topics 8-13) taught during the master classes.	33	A2	B2 B6	C9 C10	D5

Other comments on the Evaluation

Students who opt for continuous assessment must take two partial written exams, the first in March (30% of the final grade) and the second in June (33% of the final grade). If you fail the first partial, you must go to the final exam in June with the two partials. Said test will include two exams, one of each part. The July exam (2nd opportunity) will be related to the theoretical subject not passed during the 1st opportunity. (first, second or both sets).

The practices (including the presentation of the report), as well as the activities related to the Seminar and Debate, must be carried out compulsorily, regardless of the chosen evaluation modality.

Students who opt for the global evaluation modality, and who have attended and carried out the Practices, the Seminar, and the Debate, must sit a final test in June that will include questions related to the theoretical contents evaluated in the two integrated partials. in continuous evaluation. In all the exams (first partial, second partial and the July exam) the same criteria will be followed: a grade of 4.5 must be passed in all of them so that the grade of the other evaluable sections in the subject can be added (seminars, report practices, debate...).

In case of failing the subject on the second opportunity, the practical and seminar notes will be saved for the following academic year 2024/25.

A student will appear as "not submitted" when they do not take the 1st and/or 2nd opportunity written exams.

The final exam schedule can be consulted at the following link: http://bioloxia.uvigo.es/es/docencia/examenes

Sources of information
Basic Bibliography
Begon, M., Harper, J.L. y Townsend, C.R., Ecología. Individuos, poblaciones y comunidades, 1999,
Krebs, C.J., Ecología. Análisis experimental de la distribución y abundancia, 1985,
Molles, M.C., Ecology: concepts and applications, 2016,
Schlesinger, W.H., Biogeoquímica. Un análisis del cambio global, 2000,
Complementary Bibliography
Dajoz, R, Tratado de Ecología , 2002,
Margalef, R, Ecología , 1982,
Odum, E.P, Fundamentos de ecología , 2006,
Odum, E.P., Ecología: el puente entre ciencia y sociedad, 1998,
Odum, E.P., Ecología. Peligra la vida , 1997,
Pomeroy, L.R. y Alberts, J.J. (eds.), Concepts of Ecosystems Ecology. A Comparative View, 1988,
Ricklefs, R.E., Ecology , 1990,
Rodríguez, J., Ecología , 2016,
Smith, R.L. y Smith, T.M., Ecología. , 2007,

Recommendations

Subjects that continue the syllabus Environmental analysis and diagnosis/V02G030V01902 Biodiversity: management and conservation/V02G030V01905 Management and Conservation of spaces/V02G030V01910

Subjects that it is recommended to have taken before

Ecology I/V02G030V01501