Curricular Unit Form

POLITÉCNICO DE PORTALEGRE

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Escola Superior Agrária de Elvas

Updated On	2024/02/05
Curricular Year / Period	2023/24 / S1
Course	Agronomy
Curricular Unit	Ecology and Environment
Language(s) of Instruction	Português Não existe

ECTS/tempo de trabalho (horas)

ECTS	Total	Horas de contacto semestral								
		T	TP	PL	S	TC	E	O	OT	EC
3	80	0	32	16	0	0	0	0	0	0

T - Theoretical; TP - Theoretical and practical; LP - Laboratory Practice; S - Seminar; TG - Tutorial guidance; FW - Fieldwork; T - Training; ; EC - Clinical teaching; O* - Other hours typified as Clinical Training under the Directive 77/453/EEC of June 27, adapted by Directive 2005/36/EC.

Teacher in charge (GDPR consent)

[complete name, email]

José Manuel Rato Nunes / ratonunes@ipportalegre.pt

Prerequisites

[Curricular Units that must precede and specific entry competences]

Generic knowledge of Biology, animal and plant physiology, chemistry and biochemistry

Learning outcomes

[Description of the overall and specific objectives] [Knowledge, skills and competences to be developed by students]

Understanding the concept of ecology
Understand the concepts of habitat and ecosystem
Understand the concept of ecological succession
Know the main biotic relationships between living beings
Know the ecological pyramids of biomass and energy numbers
Understand the concepts of ecological pyramid and ecological web
Understand intraspecific and interspecific relationships
Know the main types of biomes: Aquatic, terrestrial, mixed
Know the main types of terrestrial ecosystems: Forests, flails, savannah, prairie, tundra, Mediterranean, etc.
Know the main terrestrial agroecosystems
Acquire the ability to define basic environmental protection measures

Sustainable Developemnt Goals

Syllabus

I. Introduction to Ecology
I.1 History of Ecology
I.2 Ecology as Science
I.3 Basic concepts of Ecology
II. ecosystems
II.1 Ecosystem Components
II.2 Main types of ecosystems
II.2.1 Terrestrial ecosystems
II.2.2 Aquatic ecosystems
II.2.3 Mixed ecosystems
III. Relationships between organisms in the ecosystem
III.1 Intraspecific relationships
III.2 Interspecific relationships

	III.3 Trophic or food chains III.3.1 Pyramids of numbers III.3.2 Biomass pyramids III.3.3 Energy pyramids III.4 Food webs IV. Main terrestrial biomes IV.1 Forests tropical, boreal, temperate IV.2 Tundra IV.3 Savannah IV.4 Predation IV.5 Mangrove IV.6 Taiga V. Mediterranean ecosystem V.1 Climate V.2 Soils V.3 Fauna V.4 Flora SAW. Agricultural Ecosystems VI.1 Rainfed versus irrigated land VI.2 Extensive versus intensive VI.3 Greenhouse production VI.4 Livestock production intensive versus extensive VI.5 Agro-silvo-pastoralism VII. Discussion of basic environmental protection measures
Teaching methodologies (including assessment) [Specify the types of assessment and the weights and evaluation criteria]	**1 - Teaching methodologies** Theoretical-practical classes, cemented by study visits whenever justified Classes will be presented using audiovisual means: films, powerpoint presentation and or viewing of specific documentaries **2 - Period assessment** The evaluation will be carried out by two tests (30% of the final grade each) and a monographic work, with public presentation, (40% of the final grade). There are no minimum grades on any component The work evaluation grid will be: 40% written part (20% for depth of work and bibliography used + 10% for work organization + 10% for spelling and grammatical correction) - 30% for presentation (15% for quality + 5% for compliance with the available time + 5% for posture + 5% for diction and oral correction) + 30% for the defense of the work (15% for argumentative capacity + 10% demonstrated knowledge + 5% for posture)n of exercises. information for possible assessment of the final grade **3 - Examination assessement** The evaluation will be carried out by exame (60% of the final grade) and a monographic work, with public presentation, (40% of the final grade). There are no minimum grades on any component The work evaluation grid will be: 40% written part (20% for depth of work and bibliography used + 10% for work organization + 10% for spelling and grammatical correction) - 30% for presentation (15% for quality + 5% for compliance with the available time + 5% for posture + 5% for diction and oral correction) + 30% for the defense of the work (15% for argumentative capacity + 10% demonstrated knowledge + 5% for posture)
Bibliography	**1 - Main Bibliography** Class support power point Ecology by Joana Bértholo ISBN 9789722129374 **2 - Complementary Bibliography** La Ecología En 100 Preguntas de Rocío Pérez Gañán ISBN 9788413052298 The Discovery Ecology of the World by Christine Sagnier and Émilie Beaumont ISBN 9782215103240 Various web pagesa Nova,

Special Situations [Students with special status]	**1 - Period assessment - Students with special status** Just like regular students **2 - Examination assessement - Students with special status** Just like regular students