

**Información del Plan Docente**

<b>Academic Year</b>	2016/17
<b>Academic center</b>	201 - Escuela Politécnica Superior
<b>Degree</b>	277 - Degree in Environmental Sciences
<b>ECTS</b>	6.0
<b>Course</b>	3
<b>Period</b>	First Four-month period
<b>Subject Type</b>	Compulsory
<b>Module</b>	---

**1.Basic info****1.1.Recommendations to take this course**

This subject is offered in the [English Friendly](#) form

**1.2.Activities and key dates for the course****2.Initiation****2.1.Learning outcomes that define the subject****2.2.Introduction****3.Context and competences****3.1.Goals****3.2.Context and meaning of the subject in the degree****3.3.Competences****3.4.Importance of learning outcomes****4.Evaluation****5.Activities and resources****5.1.General methodological presentation**

Theoretical lectures will be mainly participative. Their development will consist in the explanation by the teacher of a part of the subject, with an active participation of the students. In some cases the theoretical lectures will be devoted to the application of some theoretical concepts seen previously. In other cases students will develop the lecture, preparing previously a part of it, following teacher's suggestions. The teacher will promote active participation of students, posing problems whose resolution is based in the use of Environmental Education or other subject's tools, searching for student's integration and reasoning.

In all there will be 30 theoretical lectures of 50 minutes each, some of them in English, using frequently Power Point presentations.

Practical lectures will be of three different types: field work; classroom lectures and collective tutorials. Field work will be developed in Protected Areas, in order to visit Interpretation Centres and in the natural environments surrounding the Technical School, both related with nature interpretation. Classroom practices will be developed in normal classrooms and in computer classrooms.

Participative processes will be related to different environmental problems; practical cases; bibliographic research; exposition of partial aspect of the collective report students must prepare, etc. Tutorials will be focused on the questions posed by groups students dedicated to elaborate collective reports, in order to discuss on their focus, objectives, structure and development.

In all there will be two days of field work to visit Interpretation Centres (10 hours of teaching); 16 horas of practices, that is 8 hours of practices of 2 hours each; and 2 periods of 2 hours of tutorials.

## **5.2.Learning activities**

The program includes:

1 Visit to Nature Interpretation Centres

2 Master lectures

3 Films

4 Workshops

5 Conferences and seminars by specialists

6 Legislation and Environmental Programs analysis

### **5.3.Program**

Communication through technical and scientific writing

Biodiversity crisis

Communication theory

Environmental Education

Environmental Education Programs

Campaigns

The White Book of Environmental Education in Spain

Aragonese Strategy of Environmental Education

The Media

Enterprises and institutions in Environmental Education

Spanish legislation on Environmental Education

Nature Interpretation

International experiences

Evaluation on Environmental Education Programs

Responsible consume

Lecture's calendar follows the general calendar of the University of Saragossa. The subject timetable and the classroom can be consulted in the school's web, as well as the tutorials and exams dates. All the information regarding the subject will be presented the first day of lectures.

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Activities/Weeks	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	Total
On-site activities																60
<b>Theory</b>	2	2	1	2	2	2	2	2	1	2			1			27
<b>Problems</b>	2	2		2	2											10
<b>Field work</b>				10		5			5							20
<b>Group work</b>																0
<b>Tutorials</b>																0
<b>Evaluation</b>													3	3		90
Non on-site activities																
<b>Personal work</b>	2	2	2	2		2	2	2	2	6	7	6	8	8	7	72
<b>Team work</b>	2	2	2	2	2		2	2		2						18
<b>TOTAL</b>	9	8	8	5	8	14	6	6	9	6	8	13	8	8	8	149

### 5.4. Planning and scheduling

It follows the Saragossa University academic calendar. The subject timetable, classrooms, tutorials and exams can be consulted in the Technical School web page. The information regarding the development of the subject will be presented to the students the first day of the term.

### 5.5. Bibliography and recommended resources

- BB** Estrategia Aragonesa de Educación Ambiental (EÁREA). EAREA : Estrategia Aragonesa de Educación Ambiental. Documento / [dirección técnica, Dpto. Medio Ambiente, Gobierno de Aragón ; realización y redacción, Colectivo de Educación Ambiental] . [1<sup>a</sup> ed.] [Zaragoza] : Gobierno de Aragón, Departamento de Medio Ambiente, 2003
- BB** Jornadas de Educación Ambiental de la Comunidad Autónoma de Aragón (3<sup>a</sup>. La educación ambiental en Aragón en los albores del siglo XXI [Zaragoza] : Gobierno de Aragón, Departamento de Medio Ambiente, D.L. 2006
- BB** Lecumberri Beloqui, Guadalupe. Guía para la elaboración de programas de educación ambiental / Guadalupe Lecumberri Beloqui, Javier Arbuníes Erce ; ilustraciones: Esteban Zozaya "Birilo" [Navarra] : Centro Unesco Navarra, DL

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	2001
BB	Libro Blanco de la educación ambiental en España en pocas palabras / [coordinación, Susana Calvo Roy y Mercedes González de la Campa] Madrid : Ministerio de Medio Ambiente, Secretaría General de Medio Ambiente, 1999
BC	Calvo, Susana. El espejismo de la educación ambiental / por Susana Calvo, José Gutiérrez . [1ª ed.] Madrid : Morata, D. L. 2006
BC	Jacobson, Susan K.. Communication Skills for Conservation Professionals / Susan K. Jacobson . 2nd. ed. Washington : Island Press, 2009

### LISTADO DE URLs:

[Agencia de Medio Ambiente y Sostenibilidad](#)  
[Agencia de Medio Ambiente y Sostenibilidad del Ayuntamiento de Zaragoza](#)  
[Boletín electrónico de la EAREA](#)  
[Calvo, S., González, M. \(coord.\) \(1999\).](#)  
[Libro blanco de la educación ambiental en España en pocas palabras. Madrid: Ministerio de Medio Ambiente-Secretaría General de Medio Ambiente](#)  
[Ambiente-Secretaría General de Medio Ambiente](#)  
[Centro Nacional de Educación Ambiental, CENEAM](#)  
[Centros de Interpretación de Aragón](#)  
[Commision on Education and Communication of IUCN](#)  
[Diputación de Zaragoza. Medio Ambiente](#)  
[Documento sobre diseño de proyectos en educación ambiental](#)  
[Educación Ambiental. Gobierno de Aragón. Departamento de Medio Ambiente](#)  
[Estrategia aragonesa de educación ambiental, EAREA](#)  
[Guía de recursos ambientales de Aragón](#)  
[Guía de recursos y lectura sobre educación ambiental](#)  
[Hesselink, F., et al. \(2007\).](#)  
[Communication, Education and Public Awareness \(CEPA\). A toolkit for National Focal Points and NBSAP.](#)  
[Convention on Biological Diversity](#)  
[La Calle Indiscreta. Aula de Medio Ambiente Urbano. Gobierno de Aragón](#)  
[Novedades y noticias del Dpto. Agricultura, Ganadería y Medio](#)

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[Ambiente, Gobierno de Aragón](#)  
[Red de Entidades Locales por la Sostenibilidad del Alto Aragón, RETE 21](#)  
[Red Natural de Aragón](#)  
[Treinta años de educación ambiental: una revisión colectiva desde el territorio y los contextos](#)