

## 25250 - Environmental science and sustainability

### Syllabus Information

**Academic Year:** 2020/21

**Subject:** 25250 - Environmental science and sustainability

**Faculty / School:** 201 - Escuela Politécnica Superior

**Degree:** 277 - Degree in Environmental Sciences  
571 - Degree in Environmental Sciences

**ECTS:** 6.0

**Year:** 1

**Semester:** First Four-month period

**Subject Type:** 277 - Optional

571 - Compulsory

**Module:** ---

### 1.General information

#### 1.1.Aims of the course

#### 1.2.Context and importance of this course in the degree

#### 1.3.Recommendations to take this course

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

### 2.Learning goals

#### 2.1.Competences

#### 2.2.Learning goals

#### 2.3.Importance of learning goals

### 3.Assessment (1st and 2nd call)

#### 3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

Continuous assessment: Practise sessions and reports - 35%; midterm exam - 65%

Global assessment: a final exam including theory and practise - 100%

All the activities must reach 5/10 points to be considered in the final average

### 4.Methodology, learning tasks, syllabus and resources

#### 4.1.Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, fieldwork and practice sessions.

The activities proposed along the program will approach different topics of SDG.

#### 4.2.Learning tasks

This course is organized as follows:

- **Lectures:** Lectures introduce the main concepts and lines of the course. In addition, most difficult issues will be reviewed thoroughly. Bibliography and auto-evaluation tools are provided. Readings and instructions for all practical

exercises will be provided on the course website (Moodle). External experts may also participate in some lectures. Participation is encouraged.

- **Practice sessions:** Practice sessions are part of the required activities for this course. If you miss a lecture or tutorial through illness or some other serious reason, it is your responsibility to attend an equivalent class from another stream. Some content and activities will not be available except by face-to-face attending the classes, and missing material will disadvantage you in the course assessment. These practice sessions include case study, field and expert lectures.

### 4.3.Syllabus

Theory program is based on the SDG (Sustainable Development Goals). It starts with an introduction to 2030 Agenda, current situation, targets to reach and relevant aspects about the following SDG:

- SDG 2: Zero hunger
- SDG 3: Good health and well-being
- SDG 6: Clean water and sanitation
- SDG 7: Affordable and clean energy
- SDG 9: Industry, innovation and infrastructure
- SDG 11: Sustainable cities and communities
- SDG 12: Responsible consumption and production
- SDG 13: Climate action
- SDG 14: Life below water
- SDG 15: Life on land

### 4.4.Course planning and calendar

The student should expend 150 hours to work in this subject, distributed as following:

? 26 h theory session

? 20 h practice session

? 10 h field work

? 88 h autonomous work and study

? 6 h assessment

Activity / Week	1	2	3	4	5	6 <sup>(1)</sup>	7	8	9	10 <sup>(2)</sup>	11	12	13	14	15	16	17	
<i>Class activities</i>																		
Theory session	2	2	2	2	2		2	2	2	2	2	2	2	2				
Practice sessions			2	2	2		2	2	2		2	2	2	2				
Visits						10												
Assessment																		
<i>Autonomous work and study</i>																		
Individual work	4	4	4	4	2		2	4	2	6	3	4	3	4	4	4		7
Collective work					2		2		2		2		2					
TOTAL	6	6	8	8	8	10	8	8	8	8	9	8	9	8	4	4		7

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the Faculty of Sciences website and Moodle.

### 4.5.Bibliography and recommended resources

- BB** Chiras, Daniel D. Environmental science / Daniel D. Chiras. 10th ed Burlington, MA : Jones & Bartlett Learning, cop. 2016
- BB** Doménech Quesada, Juan Luis. Huella ecológica y desarrollo sostenible / Juan Luis Domenech Quesada. Madrid : AENOR, D.L. 2007 [Comentario del profesor: libro electrónico]
- BB** Ecología y medio ambiente / Teresa Valverde ... [et al.] ; revisión técnica Gabriel Ramos García, Héctor Meraz Larraga . México : Pearson, 2005
- BB** Gestión ambiental y desarrollo sostenible. 2a. ed. Málaga: IC Editorial, 2017 [Comentario del profesor: libro electrónico]
- BB** Goleman, Daniel. Inteligencia ecológica / Daniel Goleman ; [traducción, David González Raga]. 1ª ed. Barcelona : Kairós, 2009
- BB** Smith, Thomas Michael. Ecología / Thomas M. Smith, Robert Leo Smith. 6a. ed. Madrid [etc.] : Pearson Addison-Wesley, D.L. 2007
- BB** Xercavins, J., et al. Desarrollo sostenible. Barcelona: Univesitat Politècnica de Catalunya, 2015[Comentario del profesor: libro electrónico]
- BC** Austermühle, S. Sostenibilidad y ecoeficiencia en la empresa moderna. Lima : Universidad Peruana de Ciencias Aplicadas, 2015 [Comentario del profesor: libro electrónico]
- BC** Elías Castells, X. Energía, agua, medioambiente, territorialidad y sostenibilidad. Madrid: Díaz de Santos, 2012 [Comentario del profesor: libro electrónico]
- BC** Pérez Martell, R. Los objetivos de desarrollo sostenible. Barcelona : Bosch Editor, 2019 [Comentario del profesor: libro electrónico]

The updated recommended bibliography can be consulted in:  
<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=25250>