

## SUBJECT TEACHING GUIDE

### G2039 - Cross-Curricular Values and Objectives of Sustainable Development

#### Double Degree in Physics and Mathematics Degree in Physics

Academic year 2025-2026

1. IDENTIFYING DATA					
Degree	Double Degree in Physics and Mathematics Degree in Physics			Type and Year	Core. Year 1 Core. Year 1
Faculty	Faculty of Sciences				
Discipline					
Course unit title and code	G2039 - Cross-Curricular Values and Objectives of Sustainable Development				
Number of ECTS credits allocated	6	Term	Semester based (1)		
Knowledge Field	Physics and astronomy				
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. CIENCIAS DE LA TIERRA Y FISICA DE LA MATERIA CONDENSADA				
Name of lecturer	IGNACIO DIAZ MARTINEZ				
E-mail	ignacio.diaz@unican.es				
Office	Facultad de Ciencias. Planta: + 2. DESPACHO PROFESORES (2019)				
Other lecturers	ALBERTO GONZALEZ DIEZ JESUS SALAS BUSTAMANTE				

**4. OBJECTIVES**

Introduce students to values that develop:  
the respect for human rights and peace, as well as fundamental rights; democratic values, tolerance and recognition and respect for diversity, equity (ethnic, religion, conviction or opinion, age, disability, birth, sexual orientation, etc.) and gender equality and a culture of peace.  
their skills in planning scientific work by accessing bibliographic documentation using appropriate sources, including scientific-technical literature in English, and other on-line resources, and also the use of artificial intelligence (A.I.) tools.  
the most important values underpinning the Sustainable Development Goals (SDGs) especially those promoting the development of societies, the use of resources, energy consumption, the development of sustainable communities, the protection of the natural environment, the knowledge of the earth system and those regulating global change and in particular climate change,  
the values that underpin critical thinking, academic and academic freedom, the elimination of any discriminatory content or practice, and that encourage the participation of science in society.

**6. SUBJECT PROGRAM**

**CONTENTS**

1	Topic 1. Introduction. Values and the Sustainable Development Goals (SDGs). From our common future to the European Green Pact. Sustainable development indicators.
2	Topic 2. From disinformation to scientific information; critical search; ethical access and use. Critical analysis of scientific-technical information sources and other resources. Scientific communication. Specialized tools for information retrieval and artificial intelligence. Copyright and the ethical and legal use of information. Open access to scientific knowledge.
3	Topic 3. SDGs and the values of education; SDG No. 4: Quality Education. Preparation of student work on the SDGs for the development of societies.
4	Topic 4. SDGs for the development of life; SDG No. 14: Life Below Water. Citizen science projects.
5	Topic 5. SDGs for the development of life; SDG No. 15: Life on Land.
6	Topic 6. SDGs for the development of society; SDG No. 6: Clean Water and Sanitation. Sustainable assessment for future development: future use of resources, development of energy and infrastructure, growth of smart and resilient cities.
7	Topic 7. SDGs for the development of society; SDG No. 13: Climate Action. From understanding the natural environment to its modeling. Adaptation to climate and global change.
8	Topic 8. SDGs and soil. Relationship between soil health and SDGs 1 (No Poverty), 2 (Zero Hunger), 3 (Good Health and Well-being), 5 (Gender Equality), 6 (Clean Water and Sanitation), 7 (Affordable and Clean Energy), 9 (Industry, Innovation and Infrastructure), 11 (Sustainable Cities and Communities), 12 (Responsible Consumption and Production), and 13 (Sustainable Agriculture).
9	Topic 9. Written presentation and oral defense of the group project on the SDGs: 1) No Poverty, 2) Zero Hunger, 3) Good Health and Well-being, 4) Gender Equality, 5) Affordable and Clean Energy, 6) Decent Work and Economic Growth, 7) Industry, Innovation and Infrastructure, 8) Reduced Inequalities, 9) Sustainable Cities and Communities, 10) Responsible Consumption and Production, 11) Peace, Justice and Strong Institutions, and 12) Partnerships for the Goals. Debates on the Sustainable Development Goals.

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Submission of a report on the practical activities carried out in Topic 2.	Others	Yes	Yes	10,00
Completion of a theoretical-practical exam on Topics 1, 3, 4, and 5 of the course. Recovery of this material will take place during either the ordinary or extraordinary examination period.	Written exam	Yes	Yes	17,00
Completion of a theoretical-practical exam on Topics 6, 7, and 8 of the course. Recovery of this material will take place during either the ordinary or extraordinary examination period.	Written exam	Yes	Yes	24,00
This consists of the defense of a group project on a previously assigned topic. The presentations will take place during the last two weeks of the course, with the order of presentation determined by a daily draw. The defense will last 20 minutes, of which	Others	Yes	No	29,00
Submission of the written report of the group project, which will be defended during Continuous Assessment Exercise 4. In the case of resubmission, a new version must be submitted that includes the correction of the identified errors. The maximum grade at	Work	Yes	Yes	20,00
For those students who do not pass the continuous assessment, a theoretical-practical exam will be administered to allow recovery of the failed content. The value of this exam will correspond to that of the continuous assessment component being recovered.	Written exam	Yes	Yes	0,00
<b>TOTAL</b>				<b>100,00</b>
<b>Observations</b>				
<p>For the continuous assessment it is foreseen that during the course the student will carry out two qualification exercises (written exams, as well as the delivery and defence of a group work). The tests will take place during the timetable assigned to the subject by the centre, at the end of the course. The written exam will correspond to the content blocks described in the teaching organisation. In order to pass the course, the overall average mark must be equal to or higher than a 5 in each of them. For those students who do not pass the continuous assessment, there will be a Final Examination of a theoretical-practical nature, which will cover questions corresponding to the different blocks that make up the subject. The exercise will have a time limit of 2 hours, and the conditions for passing it will be the same as in the continuous assessment.</p>				
<b>Observations for part-time students</b>				
<p>In the case of students on a special regime, an attempt will be made, as far as possible, and in agreement with the teacher, to facilitate the monitoring of the subject and the possibility of taking extraordinary exams will be facilitated. The Extraordinary Examination will have a similar format to the Final Examination described in the previous section.</p>				

## 8. BIBLIOGRAPHY AND TEACHING MATERIALS

### BASIC

Será aportada por los profesores de la materia en todos los temas.

Información general extraída de la página web de la UNESCO.

<https://www.un.org/sustainabledevelopment/es/objetivos-de-desarrollo-sostenible/>

Lectura recomendada:

La Agenda 2030 y los ODS. Nueva Arquitectura para la Seguridad. (Consultado 15/05/2025).

<https://www.dsn.gob.es/sites/default/files/documents/LA%20AGENDA%202030%20Y%20LOS%20ODS.p>

Específicamente en el Tema 2 se empleará la siguiente:

- Biblioteca Universidad de Cantabria (2024). Vídeos sobre "Competencias digitales básicas.

<https://web.unican.es/buc/recursos/guias-y-tutoriales/guia?g=186>

- Biblioteca Universidad de Cantabria. (2024). BUCuestiones: vídeos sobre estudio e investigación.

<https://web.unican.es/buc/recursos/guias-y-tutoriales/guia?g=168>