SUBJECT TEACHING GUIDE

G2032 - Cross-Curricular Values and Objectives of Sustainable Development

First Degree in Computer Systems Engineering

Academic year 2026-2027

1. IDENTIFYING DATA					
Degree	First Degree in Computer Systems Engineering			Type and Year	Core. Year 1
Faculty	Faculty of Sciences				
Discipline					
Course unit title and code	G2032 - Cross-Curricular Values and Objectives of Sustainable Development				
Number of ECTS credits allocated	6	Term		Semester based (1)	
Knowledge Field	Computer and systems engineering				
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERÍA INFORMÁTICA Y ELECTRÓNICA
Name of lecturer	JULIO LUIS MEDINA PASAJE
E-mail	julio.medina@unican.es
Office	Facultad de Ciencias. Planta: + 3. DESPACHO DE PROFESORES (3059)
Other lecturers	ADOLFO COBO GARCIA OLGA MARIA CONDE PORTILLA ANA FERNANDEZ LAVIADA ROCIO VILAR CORTABITARTE JESUS SALAS BUSTAMANTE

4. OBJECTIVES
The student will be able to plan, design, and deliver an oral communication effectively.
The student will learn to identify and evaluate information that is truthful, reliable, scientific, and accessible in an inclusive and open manner.
The student will develop skills for effective information searching, as well as for the ethical and legal access to and use of scientific information.
The student will learn and understand the reasons justifying the creation of the Sustainable Development Goals.
The student will understand the concept of sustainability.
The student will understand how the Sustainable Development Goals are structured and organized.
The student will learn the aims of all the Sustainable Development Goals.
The student will be able to reason appropriately about the impact of a specific IT project on the Sustainable Development Goals.

6. SUBJECT PROGRAM	
CONTENTS	
1	Topic 1. Introduction to the Sustainable Development Goals Process of defining and approving the Sustainable Development Goals. Concept of sustainability. Foundations of sustainability. Structure and organization of the Sustainable Development Goals. Standards and regulations. Practical implications of the Sustainable Development Goals.
2	Topic 2. Critical search, access, and ethical use of scientific information. Critical analysis of information sources. Scientific communication. Specialized information search tools and artificial intelligence. Copyright and the ethical and legal use of information. Open access to scientific knowledge.
3	Topic 3. The Sustainable Development Goals and the Computing Profession. The impact of computing technologies on health and well-being. Education and information technologies. Gender equality in the computing profession. Artificial Intelligence ethics. Energy consumption and green computing. Bias in software applications. Automation, decent work, and economic growth. Industry 4.0. New technology-based entrepreneurship opportunities. Sustainability of computing products. The impact of computing on climate change. Ethical issues in computing technologies: cyberbullying, cybercrime, fake news, the right to be forgotten.
4	Topic 4. Effective Oral Communication Principles of oral communication. Techniques for effective oral communication.
5	Topic 5. Sustainable Development Goals beyond Computer Engineering. No poverty. Zero hunger. Clean water and sanitation. Reduced inequalities. Sustainable cities and communities. Responsible consumption and production. Climate action. Life below water. Life on land. Peace, justice, and strong institutions. Partnerships for the goals.

7. ASSESSMENT METHODS AND CRITERIA

Description	Type	Final Eval.	Reassessn	%
Participation in debates and assignments	Others	No	Yes	30,00
Presentation on SDGs and Computer Engineering	Work	No	Yes	70,00
TOTAL				100,00

Observations

If the minimum required grade is not achieved in any of the assessable components, yet the weighted average of those components is 5.0 or higher, the grade recorded in the course records will be 4.9 (Fail).

At any time, the teaching staff may employ whatever mechanisms they deem appropriate to verify that any submitted material is free of plagiarism. Detection of plagiarism will result in an automatic failure of the course and notification to higher authorities so that they may take appropriate disciplinary action. The use of artificial intelligence applications in completing assessable tasks must be disclosed when submitting the associated deliverables.

Observations for part-time students

Part-time students who, for duly justified reasons, are unable to join work teams with other students may complete the assignment and oral presentation individually. Part-time students who, for duly justified reasons, cannot attend classes regularly may participate in the discussions or tasks conducted in the virtual classroom.

8. BIBLIOGRAPHY AND TEACHING MATERIALS

BASIC

M. Rieckmann (2017). Educación para los Objetivos de Desarrollo Sostenible: objetivos de aprendizaje. UNESCO Publishing. https://unesdoc.unesco.org/ark:/48223/pf0000252423