

Systemic Analysis of Environmental Issues I

Educational subject description sheet

Basic information

<p>Field of study Joint Bachelor in Sustainability</p> <p>Speciality Geography & Economics</p> <p>Organizational unit Faculty of Law and Administration</p> <p>Study level first cycle (joint degree programme)</p> <p>Study form full-time degree programme</p> <p>Education profile General academic</p> <p>Mandatory obligatory</p>		<p>Education cycle 2025/26</p> <p>Subject code UJ.WPAJBSGECS.880.16522.25</p> <p>Lecture languages english</p> <p>Subject related to scientific research Yes</p> <p>Disciplines Socio-economic geography and spatial, Earth sciences and the environment</p> <p>ISCED classification 0588 Interdisciplinary programmes involving broad field 05</p> <p>USOS code</p>	
Subject coordinator	Piotr Szwedo		
Lecturer	Romain Courault, Gustavo Romanillos, Simon Sanchez Moral, Cristina Montiel Molina		
Period Semester 4	Examination exam	Activities and hours Discussion class: 45	Number of ECTS points 5.0

Goals

C1	To be able to recognise regional manifestations of climate change in Europe, understand policies related to mobility, water and energy
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Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge - Student knows and understands:			
W1	the stakes of sustainability issues in an urban context; and can recognise specific regional and contextual aspects of climate change	JBS_K1_W01, JBS_K1_W07	written exam
W2	what the policy and decision-making agencies, and the current policies regarding water and energy are	JBS_K1_W02	written exam
Skills - Student can:			
U1	suggest adapted solutions for sustainable planning, transport and resource management	JBS_K1_U03	written exam
U2	analyse energy-related policies, present conclusions and anticipate future implications of energy and water-related policies; analyse impact of climate change on human health, food systems and biodiversity	JBS_K1_U02	written exam
Social competences - Student is ready for:			
K1	to efficiently take into account specific data in order to assess and suggest innovative solutions	JBS_K1_K05	written exam
K2	to understand and consider different consequences of policies and to develop a personal opinion on the matter	JBS_K1_K03, JBS_K1_K04	written exam

Calculation of ECTS points

Activity form	Activity hours*
Discussion class	45
problem analysis	45
preparation for the exam	30
preparation for classes	15
Student workload	Hours 135
	ECTS 5.0

* hour means 45 minutes

Study content

No.	Course content	Subject's learning outcomes
1.	<p>Section 1: Sustainable Development of Urban areas 3.3.19</p> <ul style="list-style-type: none"> • Overview of Sustainable Development Goals and their relevance for urban areas • Follow-ups: urbanization and its impacts • Urban planning and design for sustainability • Sustainable transportation systems, and mobility • Follow-ups: green infrastructures and urban resilience • Sustainable energy production/consumption & Resource management • Social equity & inclusive development • Governance, partnerships, and policies 	W1, U1, K1
2.	<p>Section 2 : Geography and geopolitics of energy and water supply/demand 3.3.20</p> <ul style="list-style-type: none"> • Intro to energy and water geopolitics • Global energy resources and distribution • Global water resources and management • Interconnection between water and energy • Energy and water security • Renewable energies, and water efficiency • Energy and water diplomacies • Future trends, and policy implications 	W2, U2, K1
3.	<p>Section 3 : Regional effects of current climate change on European societies, human health and ecosystems 3.3.21</p> <ul style="list-style-type: none"> • Introduction to regional manifestations of climate change in Europe • Climate change and extreme weather events • Regional impacts on agriculture and food security • Climate change and human health • Climate change and urban environments • Climate change and biodiversity loss • Socio-economic impacts and disparities • European, national and infra-national policy responses and adaptation strategies 	W1, U2, K2

Course advanced

Teaching methods :

text analysis, brainstorming, conversation lecture, practicals

Activities	Examination methods	Credit conditions
Discussion class	written exam	Active participation (non-graded), written exam based on open questions (graded).

Entry requirements

None

Literature

Obligatory

1. Materials provided during the class and additional literature suggested by the lecturer

Effects

Code	Content
JBS_K1_K03	The graduate can consider different visions of the future and develop own evidence-based opinions in reference to the balance of values linked to economic development, social welfare, and environmental protection.
JBS_K1_K04	The graduate can critically assess and verbalize own competencies and skills related to different aspects of sustainability as well as their need for development.
JBS_K1_K05	The graduate can defend the importance of scientific data and methods as a basis for decision-making.
JBS_K1_U02	The graduate can present and report knowledge, methodologies, ideas, problems and solutions, clearly and comprehensively, in different forms destined for different audiences - including discussions and debates which require defending a substantiated opinion, as well as conversations in a foreign language at the CEFR B2 level.
JBS_K1_U03	The graduate can apply adequate methods and tools, including selected IT tools, to solve problems related to data collection, analysis, and management in the context of sustainability.
JBS_K1_W01	The graduate can describe the concept of sustainability and recognize the differences in relevant definitions, models and approaches.
JBS_K1_W02	The graduate can explain the axiological background of sustainability and summarize key stages of development of the concept.
JBS_K1_W07	The graduate can apply the theory and methodology of disciplines included in the selected specialisation track to sustainability-related problems, taking into consideration practical limitations such as protection of intellectual property.