



JAGIELLONIAN  
UNIVERSITY  
IN KRAKÓW

## Introduction to the Environmental Challenges

### Educational subject description sheet

#### Basic information

<b>Field of study</b> Joint Bachelor in Sustainability		<b>Education cycle</b> 2025/26	
<b>Speciality</b> -		<b>Subject code</b> UJ.WPAJBSS.810.16339.25	
<b>Organizational unit</b> Faculty of Law and Administration		<b>Lecture languages</b> english	
<b>Study level</b> first cycle (joint degree programme)		<b>Subject related to scientific research</b> Yes	
<b>Study form</b> full-time degree programme		<b>Disciplines</b> Earth sciences and the environment, Biological sciences	
<b>Education profile</b> General academic		<b>ISCED classification</b> 0588 Interdisciplinary programmes involving broad field 05	
<b>Mandatory</b> obligatory		<b>USOS code</b>	
<b>Subject coordinator</b>	Piotr Szwedo		
<b>Lecturer</b>	Gerard Govers		
<b>Period</b> Semester 1	<b>Examination</b> exam	<b>Number of ECTS points</b> 5.0	
	<b>Activities and hours</b> Lecture with elements of a discussion class: 60		

#### Goals

C1	The goal of this course is to equip students with fundamental knowledge of the key issues related to the environmental pillar of sustainability.
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#### Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
<b>Knowledge - Student knows and understands:</b>			
W1	the concept of the environmental pillar of sustainability and can recognize the differences in key definitions, models and approaches related to environmental challenges	JBS_K1_W01	written exam
W2	the key stages of development of current approaches to environmental sustainability.	JBS_K1_W02	written exam
W3	examples of major environmental challenges and can classify them.	JBS_K1_W03	written exam
W4	the most essential international instruments and institutions related to environmental sustainability.	JBS_K1_W05	written exam
<b>Skills - Student can:</b>			
U1	understand the reasons for a critical and careful approach to environmental claims.	JBS_K1_U01	written exam
<b>Social competences - Student is ready for:</b>			
K1	to encourage environmentally friendly practices in their closest environment.	JBS_K1_K01	written exam
K2	to understand how the balance of values influences potential environmental scenarios.	JBS_K1_K03	written exam
K3	to defend the importance of scientific data in environmental policy.	JBS_K1_K05	written exam

### Calculation of ECTS points

Activity form	Activity hours*
Lecture with elements of a discussion class	60
preparation for classes	60
preparation for the exam	20
<b>Student workload</b>	<b>Hours</b> 140
	<b>ECTS</b> 5.0

\* hour means 45 minutes

### Study content

No.	Course content	Subject's learning outcomes
1.	Introduction to selected current issues related to limitations to growth and planetary boundaries.	W1, W2, W3, W4, U1, K1, K2, K3
2.	Introduction to selected current issues related to land use and land degradation.	W1, W2, W3, W4, U1, K1, K2, K3
3.	Introduction to selected current issues related to spatial planning and life in cities.	W1, W2, W3, W4, U1, K1, K2, K3

No.	Course content	Subject's learning outcomes
4.	Introduction to selected current issues related to water cycles, availability and quality of water, right to water.	W1, W2, W3, W4, U1, K1, K2, K3
5.	Introduction to selected current issues related to food production and safety.	W1, W2, W3, W4, U1, K1, K2, K3
6.	Introduction to selected current issues related to biodiversity.	W1, W2, W3, W4, U1, K1, K2, K3
7.	Introduction to selected current issues related to causes of climate change.	W1, W2, W3, W4, U1, K1, K2, K3
8.	Introduction to selected current issues related to consequences and mitigation of climate change.	W1, W2, W3, W4, U1, K1, K2, K3
9.	Introduction to selected current issues related to energy production and consumption.	W1, W2, W3, W4, U1, K1, K2, K3
10.	Summary and case studies.	W1, W2, W3, W4, U1, K1, K2, K3

## Course advanced

### Teaching methods :

conversation lecture, lecture with multimedia presentation, discussion, case study

Activities	Examination methods	Credit conditions
Lecture with elements of a discussion class	written exam	Exam in the form of a choice quiz with a possibility of open and semi-open questions

## Entry requirements

None

## Literature

### Obligatory

1. Materials provided by the lecturers.

## Effects

Code	Content
JBS_K1_K01	The graduate can encourage sustainability-driven practices in the workplace and appraise sustainability of own values, perceptions, roles, and actions, with a special focus on environmental wellbeing.
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_K05	The graduate can defend the importance of scientific data and methods as a basis for decision-making.
JBS_K1_U01	The graduate can critically analyse academic literature, formulate research questions and conduct research under supervision.
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_W03	The graduate can give examples of sustainability-related dilemmas and hypothesize on the optimal course of action.
JBS_K1_W05	The graduate can identify essential international instruments and institutions related to sustainability and explain their potential role in resolution of a given problem.