Water and Humans

Educational subject description sheet

Basic information

Field of study Joint Bachelor in Sustainability	**Education cycle** 2025/26
Speciality Social Sciences & Humanities	**Realization year** 2026/27
Organizational unit Faculty of Law and Administration	**Subject code** UJ.WPAJBSSSHS.84.16583.25
Study level first cycle (joint degree programme)	**Lecture languages** english
Study form full-time degree programme	**Subject related to scientific research** Yes
Education profile General academic	**Disciplines** Sociology
Mandatory elective	**ISCED classification** 0314 Sociology and cultural studies
	USOS code

Subject coordinator	Piotr Szwedo
Lecturer	Jan Seibert

Period Semester 3	**Examination** graded credit **Activities and hours** Lecture: 15 Classes: 15	**Number of ECTS points** 3.0

Goals

C1	The aim of this course is to familiarise the students with the complexities of humans relationship with water, both individually and structurally, as well as develop their presentation, group work and peer reviewing skills.

Subject's learning outcomes

Code	Outcomes in terms of	Effects	Examination methods
Knowledge – Student knows and understands:			
W1	hydrological processes and human impacts on water resources, developing an understanding of how human activities affect water availability and quality.	JBS_K1_W04, JBS_K1_W06, JBS_K1_W07	written credit, credit with grade, project
W2	the key concepts and solutions for addressing water-related issues and conflicts, including water management strategies and sustainable practices	JBS_K1_W03	written credit, credit with grade, project
Skills – Student can:			
U1	use the methods and tools discussed in the course, particularly focusing on floods, droughts, and other water-related challenges.	JBS_K1_U02, JBS_K1_U03	written credit, credit with grade, project
U2	carry out small research-based projects on water management issues using the approaches and methods introduced in class.	JBS_K1_U01, JBS_K1_U04	written credit, credit with grade, project
Social competences – Student is ready for:			
K1	to engage in collaborative, knowledge-based problem-solving, reflecting their experience in working in groups to assess water catchments and address complex water issues.	JBS_K1_K03, JBS_K1_K04	written credit, credit with grade, project
K2	to participate in peer reviews and provide constructive feedback, showcasing their ability to critically analyse and improve upon the work of peers, thus enhancing their teamwork and communication skills.	JBS_K1_K05	written credit, credit with grade, project

Calculation of ECTS points

Activity form	Activity hours*	
Lecture	15	
Classes	15	
preparation for classes	30	
preparation of a project	30	
Student workload	**Hours** 90	**ECTS** 3.0

* hour means 45 minutes

Study content

No.	Course content	Subject's learning outcomes
1.	Welcome and introduction	W1, W2

No.	Course content	Subject's learning outcomes
2.	Flood frequency (videos)	W1, W2
3.	Quantification of changes in streamflow regimes	W1, W2
4.	Water grabbing	W1, W2
5.	Land-use and climate change	W1, W2
6.	Hydropower	W1, W2
7.	Global hydrology and water demand (focus on agriculture)	W1, W2
8.	Introduction to projects	U1, U2, K1, K2
9.	Work on projects	U1, U2, K1, K2
10.	Irrigania and game theory for water conflicts	W1, W2
11.	Watch videos	W1, W2
12.	Work on projects & Presentations	U1, U2, K1, K2

Course advanced

Teaching methods :

text analysis, project method, discussion, peer review

Activities	Examination methods	Credit conditions
Lecture	written credit, credit with grade	Turning in assignments and peer reviews on time (a student can miss max. two assignments)
Classes	credit with grade, project	Successful presentation of the group project

Entry requirements

None

Literature

Obligatory

1. Hornberger, G. M. and Perrone, D., 2019. Water resources: Science and society. Johns Hopkins University Press

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_U01	The graduate can critically analyse academic literature, formulate research questions and conduct research under supervision.
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_U04	The graduate can plan and effectuate simple sustainability-related projects under supervision and in the context of personal lifelong learning, both individually and in a team, using appropriate transversal skills and taking shared responsibility for the outcome.
JBS_K1_W03	The graduate can give examples of sustainability-related dilemmas and hypothesize on the optimal course of action.
JBS_K1_W04	The graduate can identify sustainability-related problems specific to selected cultural, geographical, and political contexts.
JBS_K1_W06	The graduate can describe interconnections between various aspects of sustainability and identify their significance in the context of natural and social sciences, with a special focus on disciplines included in the selected specialisation track (law and politics; chemistry and physics; chemistry and biology; economics and geography; economics, management and engineering; humanities).
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.