COURSE DESCRIPTION CARD - SYLLABUS

Course name
Water law permits [N1IŚrod2>PW]

Course

Field of study
Environmental Engineering

Year/Semester
4/8

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
elective

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
20

Number of credit points

2,00

Coordinators

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Lecturers

Prerequisites

1. Knowledge: Fluid Mechanics at the level, Water Supply, Sewerage, Water Technology and Wastewater Technology at the level. Environmental Chemistry and Environmental Biology: water chemistry, the processes of pollutants biodegradation. Urban Development with GIS. 2. Skills: Application of knowledge of the above mentioned subjects. Acquiring knowledge from the literature, electronic resources and databases. The ability to self-education, the ability to conceptual thinking and reasoning. 3. Social competencies: Group work. Awareness of the need to constantly update and supplement knowledge and skills.

Course objective

Acquiring basic knowledge of the legal, organizational and methodological aspects of preparing a water law report in order to obtain water law consent. Acquisition of basic knowledge in the field of the strategy in water management. Acquiring the ability to solve the complex problems related to the subject in an interdisciplinary perspective, with taking into account the existing organizational and legal conditions.

Course-related learning outcomes

Knowledge:

1. The student knows the basic methods techniques and tools applied to solve simple engineering tasks in water management, hydrology, meteorology and water protection (obtained at project)
2. The student has the basic knowledge necessary to understand social, economic, legal and other non-technical conditions of engineering activities, including the principles of sustainable development (obtained at project)

Skills:
1. The student when formulating and solving engineering tasks in water management, can notice the systemic and non-technical aspects as well as the need to apply the principles of sustainable development (obtained at the project classes)
2. The student is able to perform preliminary economic and ecological analysis of engineering activities concerning water management and hydrology (obtained at the project classes)
3. The student is able to utilize appropriate methods, technologies and tools, can design and implement a simple system typical for hydrology (obtained at the project classes)
4. The student can cooperate and work in a team (obtained at the project classes)

Social competences:
1. The student aware of non-technical aspects and effects of engineering activity, including its environmental impact, concerning water management and hydrology (obtained at classes) -

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Project
Preparation of the project (70%) and project defense - written and / or oral defense (30%)
Continuous assessment in the classroom.

Programme content

Water law permissions. Administration and water management. Conditions of water use in large catchments. Flood and drought protection - practical issues.
Use of water - purposes, types and limitations. Balancing the quantity and quality of water and sewage, water characteristics, water devices, installation start-up and emergency procedures, waste classification and management.…
Ecological and social aspect of sustainable development of water management systems.

Course topics

none

Teaching methods

Project: project method (practical project), case analysis.

Bibliography

Basic:
1. Water Law Act together with related regulations
2. Łapuszek M.: Podstawy inżynierii i gospodarki wodnej, PK, 2023.
3. Wąsowicz M. Podstawy ekonomiki gospodarki wodnej, Wydawnoctwo OWPW, 2000

Additional:
1. Balcerowicz M.: Gospodarowanie wodami, Infor PL, eBook, 2020.
2. Gromiec M. Słownik terminów związanych z gospodarowaniem zasobami wodnymi, Politechnika Krakowska, 2006.

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,00
Classes requiring direct contact with the teacher	20	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	30	1,00