COURSE DESCRIPTION CARD - SYLLABUS

Course name
Universal design I [N1IŚrod2>PUI]

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
compulsory

Number of hours

Lecture
0

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
10

Number of credit points

1,00

Coordinators

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Lecturers

Prerequisites

1.Knowledge: Basic knowledge in the field of water supply and sewage systems 2.Skills : Application of the basic principles of designing water supply and sewage systems. 3.Social competencies: Awareness of the need to constantly update and supplement knowledge and skills.

Course objective

Acquisition by students of basic knowledge and skills in the design of sanitary installations for residential and public buildings "without barriers"

Course-related learning outcomes

Knowledge:
1. The student knows the basic concepts of water supply systems (equipment) adapted to the needs of people with disabilities.
2. The student knows the basic concepts of sewage systems (equipment) adapted to the needs of people with disabilities.
3. The student knows the possible solutions for the layout of sanitary rooms "without barriers".
4. The student knows the possibilities of the ArCADia software - water supply and sewage systems

(INTERSOFT WOD-KAN) in the design of sanitary rooms in "barrier-free" facilities.
5. The student has knowledge of devices for drawing water adapted for use by people with disabilities.
6. The student has knowledge of sewage disposal devices adapted for use by people with disabilities - [KIS_W01, KIS_W05, K_W07]
7. The student has knowledge of the additional equipment of sanitary rooms adapted for the disabled.

Skills:
1. The student is able to plan sanitary rooms in public facilities "without barriers".
2. The student is able to plan sanitary facilities in residential buildings "without barriers".
3. The student is able to select the drawn elements of the water supply system and sewage disposal devices in public and residential buildings "without barriers".
4. The student is able to select additional necessary elements of sanitary equipment in public and residential facilities "without barriers".
5. The student is able to use the ArCADia software - water supply and sewage systems (INTERSOFT WOD-KAN) in the design of sanitary rooms in "barrier-free" facilities.

Social competences:
1. The student understands the need for teamwork in solving theoretical and practical problems.
2. The student sees the need to systematically deepen and expand their competences.
3. The student is aware of the social role of a graduate of a technical university.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Projects:
- assessment of the correctness of the project,
- the ocean of knowledge of the scope of the project,
- continuous assessment of the students (rewarding students activity).
- pass - 50% points

Programme content

1. Introduction to ArCADia-Water installations software (INTERSOFT WOD-KAN)
2. Classes in designing a water supply system for a public facility "without barriers"
3. Classes in designing a water supply system for a residential facility (without/with wheelchairs) "without barriers"
4. Introduction to the ArCADia software - Sewage installations (INTERSOFT WOD-KAN)5.
6. Classes in the design of a sewage system for a public facility "without barriers"
7. Sewage installation design classes for a residential facility (without/with wheelchairs) "without barriers"

Course topics

none

Teaching methods

- projects: using various sources of knowledge, classic problem method, project method.

Bibliography

Basic:
1. Chudzicki J., Sosnowski S.: Instalacje wodociągowe - projektowanie, wykonanie, eksploatacja. Warszawa 2009. Wydanie II poprawione i uzupełnione. Wyd. Seidel-Przywecki Sp. z o.o.
2. Chudzicki J., Sosnowski S.: Instalacje kanalizacyjne - projektowanie, wykonanie, eksploatacja. Warszawa 2009. Wydanie II poprawione i uzupełnione. Wyd. Seidel-Przywecki Sp. z o.o.
3. Chudzicki J.: Instalacje ciepłej wody w budynkach. Warszawa 2006. Wydanie I. Biblioteka Fundacji Poszanowania Energii. Wyd. Fundacja Poszanowania Energii.

Additional:

1. Sosnowski S., Tabernacki J., Chudzicki J.: Instalacje wodociągowe i kanalizacyjne. Warszawa 2000. Wydanie I. Wyd. Instalator Polski.

Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,00
Classes requiring direct contact with the teacher	10	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	15	0,50