



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technology of construction works [S1BZ1E>TRB]

Course

Field of study

Sustainable Building Engineering

Year/Semester

2/4

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

English

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

30

Laboratory classes

0

Other (e.g. online)

0

Tutorials

15

Projects/seminars

15

Number of credit points

4,00

Coordinators

dr inż. Piotr Nowotarski

piotr.nowotarski@put.poznan.pl

Lecturers

Prerequisites

The student has basic knowledge of the basics of construction; The student is able to obtain information from the indicated sources and analyze engineering activities undertaken; The student is aware of the need to constantly update and supplement construction knowledge and take responsibility in professional work

Course objective

The student's acquisition of basic knowledge and skills in the field of construction technology works during the investment process.

Course-related learning outcomes

Knowledge:

1. Know basic methods, techniques, tools and materials applied to solve simple engineering tasks in the field of environmental engineering.
2. Have basic knowledge of land planning and energy planning, relations between architecture and urban planning, technical and economic potential of building engineering as well as the effect of building investment on the built sustainable environment.
3. Have basic knowledge of the design of general infrastructure constructions as well as sustainable road

and rail transport.

Skills:

1. Are able to obtain information from literature, databases and other properly selected information sources; can integrate the obtained information, interpret and evaluate it as well as draw conclusions, formulate, justify, discuss and present opinions.
2. Can classify building facilities and elements of technical fitting of buildings.
3. When formulating and solving problems in sustainable building engineering, they can notice their systemic and non-technical aspects.

Social competences:

1. Are able to adapt to new and changing circumstances, can define priorities for performing tasks defined by themselves and other people, acting in the public interest and with regard to the purposes of sustainable development.
2. Can realise that it is necessary to improve professional and personal competence, understand the need and opportunities of continuous learning (Master and PhD studies, post-diploma studies, trainings).
3. Understand that it is necessary to protect the intellectual property and are ready to obey the principles of professional ethics.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:

As a form of measuring / assessing student work, a final test is carried out (during the last class) - lectures and tutorials, project delivery

Grade scale determined% from:

- 90 very good (A)
- 85 good plus (B)
- 75 good (C)
- 65 sufficient plus (D)
- 55 satisfactory (E)
- below 54 insufficient (F)

Programme content

- Lecture 1 - Introduction,
- Lecture 2 - Basic concepts and technologies for building constructions (1)
- Lecture 3 - Basic concepts and technologies for building constructions (2)
- Lecture 4 - Basic concepts and technologies for building constructions (3)
- Lecture 5 - Basic concepts and technologies for building constructions (4)
- Lecture 6 - Basic concepts and technologies for building constructions (5)
- Lecture 7 - Basic concepts and technologies for building constructions (6)
- Lecture 8 - Methods of organization and planning of works (1)
- Lecture 9 - Methods of organization and planning of works (2)
- Lecture 10 - Methods of organization and planning of works (3)
- Lecture 11 - Methods of organization and planning of works (4)
- Lecture 12 - Methods of organization and planning of works (5)
- Lecture 13 - Revision (1)
- Lecture 14 - Revision (2)
- Lecture 15 - Credit
- Tutorials 1 - Introduction
- Tutorials 2 - Earthworks (1)
- Tutorials 3 - Earthworks (2)
- Tutorials 4 - Foundations
- Tutorials 5 - Assembly works
- Tutorials 6 - Concreting works
- Tutorials 7 - Revision
- Tutorials 8 - Credit
- Projects 1 - Introduction

Projects 2 - Project description (1)
Projects 3 - Project description (2)
Projects 4 - Consultation(1)
Projects 5 - Consultation(2)
Projects 6 - Consultation (3)
Projects 7 - Consultation (4)
Projects 8 - Credit

Course topics

Lecture 1 - Introduction,
Lecture 2 - Basic concepts and technologies for building constructions (1)
Lecture 3 - Basic concepts and technologies for building constructions (2)
Lecture 4 - Basic concepts and technologies for building constructions (3)
Lecture 5 - Basic concepts and technologies for building constructions (4)
Lecture 6 - Basic concepts and technologies for building constructions (5)
Lecture 7 - Basic concepts and technologies for building constructions (6)
Lecture 8 - Methods of organization and planning of works (1)
Lecture 9 - Methods of organization and planning of works (2)
Lecture 10 - Methods of organization and planning of works (3)
Lecture 11 - Methods of organization and planning of works (4)
Lecture 12 - Methods of organization and planning of works (5)
Lecture 13 - Revision (1)
Lecture 14 - Revision (2)
Lecture 15 - Credit
Tutorials 1 - Introduction
Tutorials 2 - Earthworks (1)
Tutorials 3 - Earthworks (2)
Tutorials 4 - Foundations
Tutorials 5 - Assembly works
Tutorials 6 - Concreting works
Tutorials 7 - Revision
Tutorials 8 - Credit
Projects 1 - Introduction
Projects 2 - Project description (1)
Projects 3 - Project description (2)
Projects 4 - Consultation(1)
Projects 5 - Consultation(2)
Projects 6 - Consultation (3)
Projects 7 - Consultation (4)
Projects 8 - Credit

Teaching methods

Pyramid discussion; Panel discussion; The classic problem method; Teaching games; Exchange of ideas; Informative lecture; Problem lecture; Conversational lecture; Program text; Work with a book; Talk; Lecture reading; Demonstration method; Production exercise method; Method of experiments; Observation and measurement method; Project method; Leading text method; Workshop method; Show.

Bibliography

Basic

1. A. Dyżewski - Technologia i organizacja budowy. Arkady Warszawa 1989
2. A. Stefański - Technologia robót budowlanych. Arkady Warszawa 1983

Additional

1. K. Jaworski - Podstawy organizacji budowy. PWN Warszawa 2004.
2. R. Chudley and R. Greeno, Construction Technology, Fourth Edition, Pearson 2006

Breakdown of average student's workload

	Hours	ECTS
Total workload	60	4,00
Classes requiring direct contact with the teacher	45	3,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	15	1,00