



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technology of construction works

### Course

Field of study

Sustainable building Engineering

Area of study (specialization)

-

Level of study

First-cycle studies

Form of study

full-time

Year/Semester

2/4

Profile of study

general academic

Course offered in

English

Requirements

compulsory

### Number of hours

Lecture

30

Laboratory classes

0

Other (e.g. online)

0

Tutorials

15

Projects/seminars

15

### Number of credit points

5

### Lecturers

Responsible for the course/lecturer:

dr inż. Piotr Nowotarski

e-mail: piotr.nowotarski@putpoznan.pl

tel: 616652190

Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 5, 60-965 Poznań

Responsible for the course/lecturer:

mgr inż. Kinga Katafoni

e-mail: Kinga.katafoni@put.poznan.pl

tel: 616652181

Wydział Inżynierii Lądowej i Transportu

ul. Piotrowo 5, 60-965 Poznań

### 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:

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

### **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	5,0
Classes requiring direct contact with the teacher	45	3,5
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) <sup>1</sup>	15	1,5

<sup>1</sup> delete or add other activities as appropriate