



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Technology of building works [N1Bud1>TRB]

### Course

Field of study

Civil Engineering

Year/Semester

2/4

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

20

Laboratory classes

0

Other

0

Tutorials

10

Projects/seminars

10

### Number of credit points

4,00

### Coordinators

### Lecturers

### Prerequisites

KNOWLEDGE: The student has a basic knowledge of technology and building materials SKILLS: Able to obtain information from the literature and other sources. It can combine the information obtained SOCIAL COMPETENCES: The student should be aware of the consequences of their decisions. Understands the need for learning throughout their working lives. He understands the need for cooperation and teamwork

### Course objective

Transfer of knowledge engineering technology works zero state, raw and finishing and suitability of construction materials at the stage of execution

### Course-related learning outcomes

Knowledge:

1. Knowledge of technology works
2. Knowledge of selection of technologies and materials of construction works zero state, raw and finishing

Skills:

1. The student can choose equipment for construction works
2. The student can choose the technology and materials for the construction works

3. The student is able to apply the provisions of the construction law and legal acts relating to building structures

Social competences:

1. Able to work independently and collaborate as a team on the specific task
2. He is responsible for the accuracy of the results of their work and their interpretation
3. Isolated complements and extends knowledge of modern techniques and technologies

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Learning outcomes presented above are verified as follows:

Lectures:

- a written examination

Exercise:

-Test after exercise.

Projects:

-Commitment to and defense of the project

Test, 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

Lectures:

Introduction and discussion of the principles of technology works

Technology earthmoving

Concrete and formwork

Erection of steel structures

Installation of prefabricated reinforced concrete structures

Bricklaying

Floors

Facades , stucco and dry construction

Industrial Floor

Roofs and flat roofs

Examination

Exercise :

Exercise 1

Rules shortages and calculations bulldozers + calculation example

Rules shortages and calculations scrapers + calculation example

Exercise 2

The balance of earth masses

Rules shortages excavators + calculation example

Principles of shortages of transport + calculation example

Exercise 3

Rules shortages cranes + calculation example

Rules for selection of slings + calculation example

Exercise 4

Rules shortages formwork , horizontal and vertical partitions + calculation example

Fresh concrete pressure + calculation example

Exercise 5

The principles of assembly work and examples of variants

The location of the crane and its work- examples

Landfills and roads - examples

Exercise 6

Principles of shortages of materials -insulation , concrete , walls , facades floor in terms of what

solutions are acceptable and which are not- examples

Exercise 7

Colloquium 45 minutes (test with 30 questions )

### Course topics

none

### Teaching methods

Multimedia presentation

### Bibliography

Basic

Aleksander Dyżewski "Technologia i organizacja budowy", Arkady

Andrzej Stefański, Janusz Walczak "Technologia robót budowlanych", Arkady

Praca zbiorowa pod redakcją Władysława Lenkiewicza "Technologia robót budowlanych", Państwowe Wydawnictwo Naukowe

Praca zbiorowa pod redakcją Włodzimierza Martinka "Technologia robót budowlanych", Oficyna Wydawnicza Politechniki Warszawskiej

Additional

Wł. Martinek, M. Książek, W. Jackiewicz- Rek "Technologia robót budowlanych. Ćwiczenia projektowe", Oficyna Wydawnicza Politechniki Warszawskiej

### Breakdown of average student's workload

	Hours	ECTS
Total workload	110	4,00
Classes requiring direct contact with the teacher	40	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	70	2,50