



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Weak places in buildings [N2Bud1>SMwB]

### Course

Field of study

Civil Engineering

Year/Semester

2/4

Area of study (specialization)

Construction Engineering and Management

Profile of study

general academic

Level of study

second-cycle

Course offered in

Polish

Form of study

part-time

Requirements

elective

### Number of hours

Lecture

10

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

10

### Number of credit points

2,00

### Coordinators

dr hab. inż. Barbara Ksit prof. PP  
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### Lecturers

### Prerequisites

Basic knowledge of general construction, building mechanics, building physics.

### Course objective

Provision of maximum knowledge on the diagnosis and repair of selected structures

### Course-related learning outcomes

Knowledge

The student knows the principles of building diagnostics

The student knows and applies the provisions of the construction law.

The student has knowledge of the work and causes of the destruction of building structures

Skills

The student is able to select materials and repair technologies. The student knows the methods and diagnostic procedures. He can make an expert opinion or technical opinion.

Social competences

Awareness of the need to constantly update and supplement construction knowledge and engineering skills. The student is responsible for the reliability of the results of their work and the evaluation of the work

of the team subordinate to him. The student understands the need to provide the society with knowledge about construction.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Within the subject, classes are conducted as: lectures and projects as a form of measurement / evaluation of the student's work, the following are carried out:

Lectures:

\* final tests

Rating scale specified% from:

90 very good (A)

80 good plus (B)

70 good (C)

60 sufficient plus (D)

50 sufficient (E)

below 50 insufficient (F)

In doubtful cases, the credit is extended to the oral part.

Auditorium projects:

Defense of projects.

### Programme content

Diagnostics, moisture, thermal insulation-repairs, cracks and scratches in building structures

### Course topics

Construction diagnostics

Definition of studies / examples

Mycological problems - diagnosis

Problems of masonry structures - diagnostics

Problems of truss structures - diagnostics

Humidity problems/protection methods

### Teaching methods

Lecture / problem lecture / lectures with multimedia presentation

Projects: involving the use of professional literature, standards, Acts -

preparation of an expert opinion of the building enriched with photographic documentation with a multimedia presentation

### Bibliography

B.Ksit Diagnostyka wilgotnościowa obiektów budowlanych . Metodyka procedury badań. 2023wydawnictwo PP

L.Rudziński : Konstrukcje Murowane. Remonty i Wzmocnienia.Politechnika świętokrzyska Kielce 2010

L.Runkiewicz:Diagnostyka obiektów budowlanych. PWN 2020

B.Ksit,B.Monczyński: Zabezpieczenie elementów budynku znajdujących się w gruncie. Izolacje przeciwwilgociowe i przeciwwodne. Verlag Daschofer sp.z o.o.2011

B.Ksit,B.Monczyński: Izolacje przeciwwilgociowe i przeciwwodne dachów płaskich i tarasów. Verlag Daschofer sp.z o.o.2012

### 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