

Course code:

Plan position:

A. INFORMATION ABOUT THE COURSE

B. Basic information

Name of course	Building Energy Performance
Field of studies	Civil engineering
Level of studies	II
Profile of studies	
Form of studies	
Specialty	
Unit responsible for the field of studies	
Name and academic degree of teacher(s)	Szczepaniak Paula, PhD
Introductory courses	
Introductory requirements	

C. Semester/week schedule of classes

Semester	Lectures (W)	Auditorium classes (Ć)	Laboratory classes (L)	Project classes (P)	Seminar (S)	Field classes (T)	Number of ECTS points
winter	30						6

2. LEARNING OUTCOME

No.	Learning outcomes description	The reference to the learning outcomes of specific field of study	The reference to the learning outcomes for the area
KNOWLEDGE			
W1	Student knows the requirements for energy indicators of buildings		
W2	Student knows the procedures for developing energy performance and measures to reduce energy consumption in buildings		
SKILLS			
U1			
U2			
SOCIAL COMPETENCES			
K1	Student is responsible for the reliability of the results of his work and their interpretation		

3. TEACHING METHODS

A. Traditional methods used ***

Lectures –multimedia presentation, discussion, classic methods blackboard and chalk.

B. Distance learning methods used ***

Synchronous method (classes conducted in a way that ensures direct interaction between the student and the teacher in real time, enabling immediate flow of information, the method can be used only if it is provided for in the study plan for a given cycle of education):
 e.g. remote lecture in the form of videoconference, remote discussion, etc.

Asynchronous method used as an auxiliary (a method that does not ensure direct interaction between the student and the teacher in real time, used only as an auxiliary / complementary method):
 e.g. online educational videos, online multimedia presentations, etc.

4. METHODS OF EXAMINATION

Lectures: written exam (10 questions on the end of lectures, >50% to pass)

5. SCOPE

Lectures	Concepts and definitions related to the energy performance of buildings. Energy standards of buildings European EPBD Directive and Polish regulations related to the energy performance of buildings. Common general framework for calculating the energy performance of buildings Elements affecting the energy performance of buildings. Thermal characteristics of buildings - standards. Solutions of technical systems in buildings. European and Polish requirements for the thermal quality of buildings. Actions to improve the energy performance of buildings. NZEB buildings. External and internal climate conditions. Thermal quality testing of the casing.
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6. METHODS OF VERIFICATION OF LEARNING OUTCOMES

LEARNING OUTCOME	Form of assessment					
	Oral examination	Written exam	Colloquium	Project	Presentation
W1		x				
W2		x				
U1						
U2						
K1		x				

7. LITERATURE

Basic literature	1. Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings 2. European Standards
Supplementary literature	1. Rozporządzenie Ministra Infrastruktury i Rozwoju z dnia 27 lutego 2015 r. w sprawie metodologii wyznaczania charakterystyki energetycznej budynku lub części budynku oraz świadectw charakterystyki energetycznej (DzU 2015, poz. 376).

8. TOTAL STUDENT WORKLOAD REQUIRED TO ACHIEVE EXPECTED LEARNING OUTCOMES EXPRESSED IN TIME AND ECTS CREDITS

Student's activity		Student workload– number of hours
Classes conducted under a direct supervision of an academic teacher or other persons responsible for classes	Participation in classes indicated in point 1B	30
	Supervision hours	10
Student's own work	Preparation for classes	40
	Reading assignments	50
	Other (preparation for exams, tests, carrying out a project etc)	50
Total student workload		180
Number of ECTS points		6