

POLITECHNIKA KRAKOWSKA IM. TADEUSZA KOŚCIUSZKI

KARTA PRZEDMIOTU

obowiązuje studentów rozpoczynających studia w roku akademickim 2021/2022

Wydział Inżynierii Lądowej

Kierunek studiów: Budownictwo

Profil: Ogólnoakademicki

Forma studiów: stacjonarne

Kod kierunku: BUD

Stopień studiów: I

Specjalności: Bez specjalności – studia w języku angielskim

1 INFORMACJE O PRZEDMIOCIE

NAZWA PRZEDMIOTU	Technologia, mechanizacja i automatyzacja robót budowlanych
NAZWA PRZEDMIOTU W JĘZYKU ANGIELSKIM	Technology, mechanisation and automatisisation of construction works
KOD PRZEDMIOTU	WIL BUD oIS C26 21/22
KATEGORIA PRZEDMIOTU	Przedmioty kierunkowe
LICZBA PUNKTÓW ECTS	5.00
SEMESTRY	3 4

2 RODZAJ ZAJĘĆ, LICZBA GODZIN W PLANIE STUDIÓW

SEMESTR	WYKŁAD	ĆWICZENIA AUDYTORYJNE	LABORATORIA	LABORATORIA KOMPUTERO- WE	PROJEKTY	SEMINARIUM
3	30	0	0	0	15	0
4	15	0	0	0	15	0

3 CELE PRZEDMIOTU

Cel 1 To provide information related to technology of construction works. To get students acquainted with various types of technologies, mechanization and automation of construction works. To prepare students to solve problems within the field of construction technology.

Kod archiwizacji:

Cel 2 To familiarize students with various types of construction machines. To prepare students for analyses of efficiency of labour, machines and the use of construction materials. To familiarize students with various kinds of automation of construction works. To prepare students (at a basic level) to take part in research within the field of technology, mechanisation and automatisisation of construction works.

4 WYMAGANIA WSTĘPNE W ZAKRESIE WIEDZY, UMIEJĘTNOŚCI I INNYCH KOMPETENCJI

1 Knowledge on classification and types of building materials. Knowledge on classification and types of construction objects and their elements. Completion of courses according to the sequence of learning at Faculty of Civil Engineering CUT.

5 EFEKTY KSZTAŁCENIA

EK1 Wiedza Basic knowledge within the field of technology, mechanisation and automation of construction works.

EK2 Wiedza Basic knowledge on the use of resources (labour, machines, materials) in technology, mechanisation and automation of construction works.

EK3 Umiejętności Ability to solve basic problems within the field of technology, mechanisation and automation of construction works.

EK4 Kompetencje społeczne Ability to work in team. Ability to work individually. Critical approach to own work and results of analyzes. Ability to discuss results of own or others work.

6 TREŚCI PROGRAMOWE

PROJEKTY		
LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
P1	Earthworks technology - individual/team assignment.	8
P2	Reinforced concrete technology - individual/team assignment.	7
P3	Technological transport on a construction site and technology of assembly works - individual/team assignment.	8
P4	Presentation of a chosen aspect of automation of construction works - - individual/team assignment.	7

WYKŁAD		
LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
W1	Course description. Presentation of requirements to complete the course. Introduction to construction technology, mechanisation and automation of construction works.	2

WYKŁAD		
LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
W2	Definitions and concepts of technology of construction works. Definitions and concepts of mechanization of construction works. Definitions and concepts of automation of construction works.	2
W3	Earthworks technology. Earthworks machines. Technologies of soil stabilization and strengthening.	6
W4	Deep excavation supports. Deep foundation technologies.	4
W6	Reinforced concrete technology - technology of reinforcement works.	2
W7	Reinforced concrete technology - formworks and scaffoldings.	4
W8	Reinforced concrete technology - technology for concrete transportation, placement and curing.	2
W9	Technological transport on a construction site. Mechanisation of transport on a construction site.	4
W11	Technology of masonry works. Technology of insulation works. Technology of finishing works.	4
W12	Automation of earthworks.	4
W13	Technology of assembly works.	4
W14	Mechanisation and automation of reinforced concrete construction works.	4
W15	Chosen aspects of automation and robotics in construction works.	3

7 NARZĘDZIA DYDAKTYCZNE

N1 Lectures, multimedia presentations

N2 Design exercises: individual tasks and team tasks

N3 E-learning