

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: II

Specjalności: Structural Design and Management in Civil Engineering (profile: Construction Technology and Management)

1 INFORMACJE O PRZEDMIOCIE

NAZWA PRZEDMIOTU	Zaawansowane technologie w pracach budowlanych
NAZWA PRZEDMIOTU W JĘZYKU ANGIELSKIM	AdvancedTechnologiesinConstructionWorks
KOD PRZEDMIOTU	WIL BUD oIIS D18 21/22
KATEGORIA PRZEDMIOTU	Specialty subjects (profile: Construction Technology and Management)
LICZBA PUNKTÓW ECTS	1.00
SEMESTRY	3

2 RODZAJ ZAJĘĆ, LICZBA GODZIN W PLANIE STUDIÓW

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

3 CELE PRZEDMIOTU

Cel 1 To provide information related to advanced technologies in construction works.

Cel 2 To get students acquainted with various types of advanced technologies of reinforced concrete structures formworking, 3D printing technology for construction industry and advanced technologies for smart buildings.

Kod archiwizacji:

Cel 3 To familiarize students with various technologies of fast assembly of modular buildings and fast construction of tall buildings, roads, railroads and bridges.

Cel 4 To prepare students (at a basic level) to take part in research within the field of advanced technologies in construction works.

4 WYMAGANIA WSTĘPNE W ZAKRESIE WIEDZY, UMIEJĘTNOŚCI I INNYCH KOMPETENCJI

1 Basic knowledge of construction works technology.

5 EFEKTY KSZTAŁCENIA

EK1 Wiedza Student has a basic knowledge in the field of advanced technologies in construction works and advanced technologies for smart buildings.

EK2 Wiedza Student has an expanded range of knowledge on the use of advanced reinforced concrete structures formworking, 3D printing technology for construction industry and various technologies of fast assembly of modular buildings and fast construction of tall buildings, roads, railroads and bridges.

EK3 Umiejętności Student is able to solve basic problems related to the selection of the correct advanced technologies for various construction works.

EK4 Umiejętności Student is able to discuss the strengths and weaknesses as well as the advantages and disadvantages of using advanced technologies in construction works.

6 TREŚCI PROGRAMOWE

WYKŁAD		
LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
W1	Introduction to the field of advanced technologies in construction works. Directions of development of construction works technologies and opportunities to take part in research within this field.	1
W2	Advanced technologies of CNC (computerized numerical control) processing of building materials and components.	2
W3	Advanced technologies of reinforced concrete structures formworking.	2
W4	3D printing technology for construction industry.	2
W5	Technologies for fast assembly of modular buildings.	2
W6	Technologies for fast construction of tall buildings.	2
W7	Technologies for fast construction of roads, railroads and bridges.	2
W8	Advanced technologies for smart buildings.	2