

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	Fundamentowanie
NAZWA PRZEDMIOTU W JĘZYKU ANGIELSKIM	Foundations
KOD PRZEDMIOTU	WIL BUD oIS C36 21/22
KATEGORIA PRZEDMIOTU	Przedmioty kierunkowe
LICZBA PUNKTÓW ECTS	3.00
SEMESTRY	5

2 RODZAJ ZAJĘĆ, LICZBA GODZIN W PLANIE STUDIÓW

SEMESTR	WYKŁAD	ĆWICZENIA AUDYTORYJNE	LABORATORIA	LABORATORIA KOMPUTERO- WE	PROJEKTY	SEMINARIUM
5	30	0	0	0	15	0

3 CELE PRZEDMIOTU

Cel 1 Getting to know the classification of foundations and the selection of a foundation to soil conditions

Cel 2 Getting to know the design of direct foundations, check the bearing capacity state and serviceability limit state

Cel 3 Getting acquainted with the design of foundations on piles, checking bearing capacity and serviceability limit state

Cel 4 Getting acquainted with the execution technology of various types of piles

Cel 5 Getting acquainted with the execution technology of diaphragm walls

4 WYMAGANIA WSTĘPNE W ZAKRESIE WIEDZY, UMIEJĘTNOŚCI I INNYCH KOMPETENCJI

1 Completing the entire course of Soil Mechanics

2 Completing the entire course of Strength of Materials

5 EFEKTY KSZTAŁCENIA

EK1 Wiedza Student gives the types of foundations and difference of structural solutions

EK2 Umiejętności Student can choose the type of foundation to soil conditions

EK3 Wiedza Student determines the bearing capacity limit state and serviceability limit state for direct foundations

EK4 Umiejętności Students can check the bearing capacity limit state and serviceability limit state for direct foundations according to Polish standards and Eurocode 7

EK5 Wiedza Student determines the bearing capacity limit state and serviceability limit state for foundations on piles

EK6 Umiejętności Students can check the bearing capacity limit state and serviceability limit state for foundations on piles according to Polish standards and Eurocode 7

EK7 Umiejętności Student gives the execution technology of displacement piles screw piles

EK8 Wiedza Student gives the execution technology of diaphragm walls

6 TREŚCI PROGRAMOWE

WYKŁAD		
LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
W1	Types of foundations. Geotechnical design techniques suitable to geotechnical category.	3
W2	Direct foundations: strip, feet, grates, plates. Bearing capacity limit state according to Polish standard PN-81/B-03020.	3
W3	Direct foundations: strip, feet, grates, plates. Bearing capacity limit state according to Eurokod PN-EN 1997-1	3
W4	Direct foundations. Settlement, serviceability limit state according to Polish standard PN-81/B-03020.	2
W5	Direct foundations. Admissible settlements, serviceability limit state according to standards PN-81/B-03020 and PN-EN-1997-1	2

WYKŁAD		
LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
W6	Indirect foundations: on piles, on wells, on diaphragm walls, on caissons. Types and examples.	2
W7	Foundation on piles. Bearing capacity limit state according to Polish standard PN-81/B-03020.	3
W8	Foundation on piles. Bearing capacity limit state according to Eurocode PN-EN 1997-1.	3
W9	Foundation on piles. Bearing capacity limit state according to Polish standard PN-81/B-03020. Exam of the bearing capacity the pile based on static load.	2
W10	Overview of piles technology: drilled piles; displacement piles. Examples of the advantages and disadvantages of each technology.	2
W11	Diaphragm walls. Application and technology execution steps. Examples of implementation as retaining walls and as basement walls.	2
W12	Limit states of special foundations: on walls and on caissons. Summary of the object.	3

PROJEKTY		
LP	TEMATYKA ZAJĘĆ OPIS SZCZEGÓŁOWY BLOKÓW TEMATYCZNYCH	LICZBA GODZIN
P1	Direct foundation. Bearing capacity limit state according to Polish standard PN-81/B-03020.	3
P2	Direct foundation. Bearing capacity limit state according to Eurocode PN-EN 1997-1.	3
P3	Direct foundation. Consultation and check the individual student project.	1
P4	Foundation on piles. Bearing capacity limit state according to Polish standard PN-83/B-02482.	3
P5	Foundation on piles. Bearing capacity limit state according to Eurocode PN-EN 1997-1.	3
P6	Foundation on piles. Consultation and check the individual student project. Final test.	2

7 NARZĘDZIA DYDAKTYCZNE

N1 Lectures

N2 Project tutorials