App. no 3 to ZW 64/2012
Appendix no 1 to Program of studies

PLAN OF STUDIES

FACULTY: Civil Engineering

MAIN FIELD OF STUDY: Civil Engineering

EDUCATION LEVEL: ~~I /~~ II * level, ~~licencjat / inżynier / magister /~~ magister inżynier*

FORM OF STUDIES: full-time ~~/ part-time*~~

PROFILE: general academic ~~/ practical *~~

SPECIALIZATION: Civil Engineering

LANGUAGE OF STUDY: English

Faculty Council resolution no. 516/333/2012-2016 from 24.06.2015.

In effect since 01.10.2015

Plan of studies structure 1) in ECTS layout

Specjalność: Civil Engineering

ECTS	Sem. 1	Sem. 2	Sem. 3
30	FZP007163 Fizyka nowoczesnych materiałów	CEB007962 Dynamika budowli	CEB008563 Zarządzanie przedsięwzięciami budowlanymi
29	CEB007261 Matematyka-wybrane zagadnienia		
28			
27		CEB005362 Metody komputerowe	CEB009863 Seminarium dyplomowe
26	CEB007361 Fundamentowanie-wybrane zagadnienia		
25			
24		CEB008662 Technologia robót budowlanych	CEB099963 Praca dyplomowa magisterska
23	CEB008361 Teoria sprężystoći i plastyczności		
22			
21		Zajęcia sportowe - blok W	
20	CEB008461 Statyka budowli – wybrane zagadnienia	CEB004462 Budownictwo mieszkaniowe	
19			
18			
17		CEB003962 Budownictwo podziemne – infrastruktura miejska	
16			
15	CEB007561 Konstrukcje betonowe – obiekty		
14			
13		CEB004062 Koleje	
12			
11	CEB007661 Konstrukcje metalowe –obiekty		
10		CEB004162 Drogi, ulice i lotniska	
9			
8			
7	CEB007761 Zaawansowane komputerowe wspomaganie projektowania		
6		CEB008062 Mosty	Moduł z bloku wybieralnego1
5	CEB007861 Hydraulika w budownictwie		
4			
3	Moduł wybieralny z bloku A		Moduł z bloku wybieralnego2
2	Moduł wybieralny z bloku B	Moduł wybieralny z bloku C	
1			

Specialization: Civil Engineering

ECTS	Sem. 1	Sem. 2	Sem. 3
30	FZP007163 Physics of modern materials	CEB007962 Dynamics	CEB008563 Construction project management
29	CEB007261 Mathematics - selected topics		
28			
27		CEB005362 Computational mechanics	CEB009863 Master thesis seminar
26	CEB007361 Selected topics in geo-engineering - foundations		
25			
24		CEB008662 Constructions techniques and processes	CEB099963 Master thesis
23	CEB008361 Theory of elasticity and plasticity		
22			
21		Sports - Elective W	
20	CEB008461 Selected topics in structural mechanics	CEB004462 Apartment building	
19			
18			
17		CEB003962 Underground structures - urban infrastructure	
16			
15	CEB007561 Concrete structures - objects		
14			
13		CEB004062 Railways	
12			
11	CEB007661 Metal structures - objects		
10		CEB004162 Roads, streets and airports	
9			
8			
7	CEB007761 Advanced computer aided engineering		
6		CEB008062 Bridges	Elective 1
5	CEB007861 Hydraulics in civil engineering		
4			
3	Elective A		Elective 2
2	Elective B	Elective C	
1			

Moduł wybieralny z bloku A:	Moduł wybieralny z bloku C:	Moduł z bloku wybieralnego 1:
FLH020361 Etyka inżynierska FLH020461 Etyka w biznesie	JZL100710BK Język obcy – poziom A1/A2	CEB00606 Sztuczna inteligencja w budownictwie CEB006163 Nowoczesne metody badań nieniszczących konstrukcji budowlanych CEB007063 Zaawansowana fizyka budowli CEB006363 Hydrologia dla inżynierów budowlanych CEB006863 Właściwości efektywne kompozytów – wprowadzenie do mikromodelowania
Moduł wybieralny z bloku B:	Moduł wybieralny z bloku W:	
JZL100709BK Język obcy – poziom B2+	WFW010000BK Zajęcia sportowe	
		Moduł z bloku wybieralnego 2:
		CEB006563 Betonowe konstrukcje sprężone CEB006663 Konstrukcje drewniane CEB006763 Konserwacja i wzmacnianie konstrukcji zabytkowych CEB006963 Metody statystyki stosowanej (geostatystyka) CEB008263 Budownictwo zrównoważone

Elective A:	Elective C:	Elective 1:
FLH020361 Etyka inżynierska FLH020461 Etyka w biznesie	JZL100710BK Foreign language - level A1/A2	CEB00606 Artificial intelligence in civil engineering CEB006163 Modern testing methods for non-destructive inspection of building structures CEB007063 Advanced building physics CEB006363 Hydrology for building engineers CEB006863 Effective properties of composites - introduction to micro-mechanics
Elective B:	Elective W:	
JZL100709BK Foreign language B2+	WFW010000BK Sports	
		Elective 2:
		CEB006563 Pre-stressed concrete structures CEB006663 Timber dtructures CEB006763 Conservation and strengthening of monumental heritage structures CEB006963 Methods o applied statistics (geo-statistics) CEB008263 Sustainable housing

Prerequisites for specialty CEB

Specialization is designated for graduates of all universities who meet the general competency requirements for candidates to study a second degree at WBLiW WrUT - the 1st level degree in civil engineering or in the close directions (so-called “related fields-of-study” in accordance with the Construction Law and regulations implementing this act). Requires possession of knowledge and skills (learning outcomes) for the filed-of-study civil engineering, according to the program of education at the Faculty of Civil Engineering at Wrocław University of Technology. Students not meeting this requirement, they should complete the missing knowledge by self-education (given the literature). Admitted to study are also graduates of foreign universities, not fluent in Polish.

Plan of studies structure

2) in hourly layout

Specjalność: Civil Engineering

Godziny	Sem. 1	Sem. 2	Sem. 3
31		Moduł wybieralny z bloku W	
30		CEB007962 Dynamika budowli	
29			
28		CEB005362 Metody komputerowe	
27	FZP007163 Fizyka nowoczesnych materiałów		
26	CEB007261 Matematyka-wybrane zagadnienia		
25		CEB008662 Technologia robót budowlanych	
24	CEB007361 Fundamentowanie-wybrane zagadnienia		
23			
22		CEB004462 Budownictwo mieszkaniowe	
21	CEB008361 Teoria sprężystoći i plastyczności		
20			
19		CEB003962 Budownictwo podziemne – infrastruktura miejska	
18	CEB008461 Statyka budowli – wybrane zagadnienia		
17			
16			
15		CEB004062 Koleje	
14	CEB007561 Konstrukcje betonowe – obiekty		
13			
12			
11		CEB004162 Drogi, ulice i lotniska	
10	CEB007661 Konstrukcje metalowe – obiekty		
9			
8			CEB008563 Zarządzanie przedsięwzięciami budowlanymi
7		CEB008062 Mosty	
6	CEB007761 Zaawansowane komputerowe wspomaganie projektowania		CEB009863 Seminarium dyplomowe
5			
4	CEB007861 Hydraulika w budownictwie		Moduł z bloku wybieralnego1
3			

Specialization: Civil Engineering

Hours	Sem. 1	Sem. 2	Sem. 3
31		Sports - Elective W	
30		CEB007962 Dynamics	
29			
28		CEB005362 Computational mechanics	
27	FZP007163 Physics of modern materials		
26	CEB007261 Mathematics - selected topics		
25		CEB008662 Constructions techniques and processes	
24	CEB007361 Selected topics in geo-engineering - foundations		
23			
22		CEB004462 Apartment building	
21	CEB008361 Theory of elasticity and plasticity		
20			
19		CEB003962 Underground structures - urban infrastructure	
18	CEB008461 Selected topics in structural mechanics		
17			
16			
15		CEB004062 Railways	
14	CEB007561 Concrete structures - objects		
13			
12			
11		CEB004162 Roads, streets and airports	
10	CEB007661 Metal structures - objects		
9			
8			CEB008563 Construction project management
7		CEB008062 Bridges	
6	CEB007761 Advanced computer aided engineering		CEB009863 Master thesis seminar
5			
4	CEB007861 Hydraulics in civil engineering		Elective 1
3			

2	Moduł wybieralny z bloku A	Moduł wybieralny z bloku C	Moduł z bloku wybieralnego2
1	Moduł wybieralny z bloku B		

Moduł wybieralny z bloku A:		Moduł z bloku wybieralnego 1:
FLH020361 Ethics in engineering FLH020461 Ethics in business		CEB00606 Sztuczna inteligencja w budownictwie CEB006163 Nowoczesne metody badań nieniszczących konstrukcji budowlanych CEB007063 Zaawansowana fizyka budowli CEB006363 Hydrologia dla inżynierów budowlanych CEB006863 Właściwości efektywne kompozytów –wprowadzenie do mikromodelowania
Moduł wybieralny z bloku B:	Moduł wybieralny z bloku C:	
JZL100709BK Język obcy – poziom B2+	JZL100710BK Język obcy – poziom A1/A2	
	Moduł wybieralny z bloku W:	
	WFW010000BK Zajęcia sportowe	
		Moduł z bloku wybieralnego 2:
		CEB006563 Betonowe konstrukcje sprężone CEB006663 Konstrukcje drewniane CEB006763 Konserwacja i wzmacnianie konstrukcji zabytkowych CEB006963 Metody statystyki stosowanej (geostatystyka) CEB008263 Budownictwo zrównoważone

2	Elective A	Elective C	Elective 2
1	Elective B		

Elective A:		Elective 1
FLH020361 Ethics in engineering FLH020461 Ethics in business		CEB00606 Artificial intelligence in civil engineering CEB006163 Modern testing methods for non-destructive inspection of building structures CEB007063 Advanced building physics CEB006363 Hydrology for building engineers CEB006863 Effective properties of composites - introduction to micro-mechanics
Elective B:	Elective C:	
JZL100709BK Foreign language B2+	JZL100710BK Foreign language - level A1/A2	
	Elective W:	
	WFW010000BK Sports	
		Elective 2:
		CEB006563 Pre-stressed concrete structures CEB006663 Timber dtructures CEB006763 Conservation and strengthening of monumental heritage structures CEB006963 Methods o applied statistics (geo-statistics) CEB008263 Sustainable housing

1. Set of obligatory and optional courses and groups of courses in semesteral arrangement

Definitions:

[1]BK – number of ECTS points assigned to hours of classes requiring direct contact of teachers with students
[2]Traditional – T, distance – Z
[3]Exam – E, crediting with grade – Z. For the group of courses – after the letter E or Z - enter in brackets the final course form (lec, cl, lab, pr, sem)
[4]University-wide course /group of courses – O
[5]Practical course / group of courses – P. For the group of courses (GK) - in brackets enter the number of ECTS points assigned to practical courses
[6]KO – general education, PD – basic sciences, K – field-of-studies, S – specialization
[7]Optional – W, obligatory – Ob.
CNPS – total student's work; ZZU – organized courses; 1 ECTS = 30 hrs NPS

Modules for optional specialization: Civil Engineering CEB [9]
Specialization: Civil Engineering (language of studies: English)
Supervisor: prof. dr hab. inż. Jan BIEŃ

Semester 1
Obligatory courses **number of ECTS points 28**

No	Course / group of courses code	Name of course / group of courses (denote group of courses with symbol GK)	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form[2] of course / group of courses	Way[3] of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes[1]			university-wide[4]	practical P[5]	kind[6]	type[7]
1	**FZP007163**	Physics of modern materials. Fizyka nowoczesnych materiałów	1					K2_W01, K2_W02, K2_W04, K2_U03, K2_U08, K2_K01, K2_K02, K2_K06	15	30	1	0,5	T	Z	O		PD	Ob.
2	**CEB007261**	Selected topics in mathematics. Matematyka - wybrane zagadnienia	1					K2_W01, K2_U08, K2_K01, K2_K02, K2_K03, K2_K06	15	60	2	0,6	T	E			PD	Ob.
				1					15	30	1	0,6	T	Z		0,9	PD	Ob.
3	**CEB007361**	Selected topics in geo-engineering - foundation. Fundamentowanie - wybrane zagadnienia	1					K2_W01, K2_W06, K2_W08, K2S_CEB_W16, K2S_CEB_W19, K2S_CEB_W20, K2_U04, K2_U05, K2_U09, K2_U10, K2_U16, K2_U17, K2S_CEB_U20, K2S_CEB_U22, K2S_CEB_U23, K2_K03, K2_K06	15	30	1	0,5	T	Z			K	Ob.
						2			30	60	2	1,2	T	Z		2,0	K	Ob.

4	**CEB008361**	Theory of elasticity and plasticity. Teoria sprężystości i plastyczności	2					K2_W01, K2_W02, K2_W04, K2S_CEB_W16, K2_U02, K2_U04, K2_U08, K2S_CEB_U19, K2S_CEB_U23, K2_K01	30	60	2	1,1	T	Z			K	Ob.
				1					15	30	1	0,6	T	Z		0,8	K	Ob.
5	**CEB008461**	Selected topics in structural mechanics. Statyka budowli - wybrane zagadnienia	2					K2_W03, K2_W04, K2_W05, K2S_CEB_W16, K2_U06, K2_U07, K2_U09, K2S_CEB_U19, K2_K01, K2_K03	30	90	3	1,1	T	E			K	Ob.
				1					15	30	1	0,7	T	Z		0,5	K	Ob.
					1				15	30	1	0,7	T	Z		1,0	K	Ob.
6	**CEB007561**	Concrete structures - objects. Konstrukcje betonowe - obiekty	2					K2_W04, K2_W06, K2_W07, K2_W08, K2S_CEB_W16, K2S_CEB_W18, K2_U09, K2_U11, K2_U12, K2S_CEB_U18, K2S_CEB_U19, K2_K01, K2_K02, K2_K03	30	60	2	1,1	T	E			S	Ob.
						2			30	60	2	1,1	T	Z		2,0	S	Ob.

7	**CEB007661**	Metal structures - objects. Konstrukcje metalowe - obiekty	2					K2_W01, K2_W02, K2_W04, K2_W05, K2_W06, K2_W07, K2_W09, K2S_CEB_W16, K2_U01, K2_U02, K2_U04, K2_U05, K2_U06, K2_U07, K2_U08, K2_U09, K2_U11, K2_U12, K2S_CEB_U18, K2S_CEB_U19, K2_K01, K2_K02, K_K03	30	60	2	1,1	T	E			S	Ob.
						2			30	60	2	1,1	T	Z		2,0	S	Ob.
8	**CEB007761**	Advanced computer aided engineering. Zaawansowane komputerowe spomaganie projektowania			2			K2_W03, K2_W04, K2_W05, K2_W06, K2_W07, K2_W09, K2S_CEB_W16, K2S_CEB_W22, K2_U04, K2_U05, K2_U06, K2_U07, K2_U08, K2_U09, K2_U11, K2_U12, K2S_CEB_U18, K2S_CEB_U19, K2S_CEB_U23, K2_K01, K2_K02, K2_K03	30	60	2	1,2	T	Z		2,0	S	Ob.

9	**CEB007861**	Hydraulics in civil engineering. Hydraulika w budownictwie	1					K2_W01, K2_W02, K2_W06, K2_W14, K2S_CEB_W17, K2_U01, K2_U02, K2_U03, K2_U06, K2_U17, K2_U19, K2_U20, K2S_CEB_U20, K2_K01, K2_K02, K2_K03	15	30	1	0,6	T	Z			S	Ob.
						1			15	30	1	0,6	T	Z		1,0	S	Ob.
10	**JZL100709BK**	Foreign language - level B2+. Język obcy - poziom B2+		1				K1_U01, K1_U02, K1_K01, K1_K05, K1_K07, K1_K08	15	30	1	0,5	T	Z	O	1,0	KO	W
		Total	12	4	3	7	0		390	840	28	14,9				13,2		

Groups of optional courses **number of ECTS points** **2**

No	Course / group of courses code	Name of course / group of courses (denote group of courses with symbol GK)	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form[2] of course / group of courses	Way[3] of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes[1]			university-wide[4]	practical P[5]	kind[6]	type[7]
1		**Module selected from block**					1		15	60	2	0,6	T	Z	O	1,5	KO	W
	FLH020361	Ethics in engineering. Etyka inżynierska						K2_W13, K2_W14, K2_W15, K2_U03, K2_U15, K2_U16, K2_K01, K2_K02, K2_K04, K2_K06										
	FLH020461	Ethics in business. Etyka w biznesie																
		Total	0	0	0	0	1		15	60	2	0,6				1,5		

Total in semester:

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS points for BK	Total number of ECTS points for P
lec	cl	lab	pr	sem					
12	4	3	7	1	405	900	30	15,5	14,7

Semester 2

Obligatory courses **number of ECTS points 30**

No	Course / group of courses code	Name of course / group of courses (denote group of courses with symbol GK)	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form[2] of course / group of courses	Way[3] of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes[1]			university-wide[4]	practical P[5]	kind[6]	type[7]
1	**CEB007962**	Dynamics. Dynamika budowli	1					K2_W01, K2_W03, K2_W04, K2_W05, K2S_CEB_W22, K2_U03, K2_U05, K2_U06, K2_U07, K2_U09, K2_U16, K2S_CEB_U19, K2_K01, K2_K02	15	60	2	0,7	T	E			K	Ob.
					1				15	30	1	0,6	T	Z		1,0	K	Ob.
2	**CEB005362**	Computational mechanics. Metody komputerowe	1					K2_W01, K2_W02, K2_W03, K2_W04, K2_W05, K2_W09, K2S_CEB_W16, K2_U02, K2_U06, K2_U08, K2_U09, K2_U16, K2S_CEB_U19, K2_K01, K2_K04	15	30	1	0,5	T	Z			K	Ob.
					2				30	60	2	1,1	T	Z		2,0	K	Ob.

3	**CEB008662**	Construction techniques and processes. Technologia robót budowlanych	1					K2_W10, K2_W11, K2_W13, K2_W14, K2S_CEB_W21, K2_U01, K2_U13, K2_U14, K2_U16, K2S_CEB_U23, K2_K01, K2_K02, K2_K04	15	30	1	0,7	T	E			S	Ob.
						2			30	60	2	1,1	T	Z		2,0	S	Ob.
4	**CEB004462**	Apartment building. Budownictwo mieszkaniowe	2					K2_W04, K2_W06, K2_W07, K2_W14, K2S_CEB_W16, K2S_CEB_W18, K2_U02, K2_U04, K2_U05, K2_U06, K2S_CEB_U18, K2_U11, K2_K01, K2_K03, K2_K05, K2_K06	30	60	2	1,1	T	Z			S	Ob.
						1			15	30	1	0,6	T	Z		1,0	S	Ob.
5	**CEB003962**	Underground structures - urban infrastructure. Budownictwo podziemne - infrastruktura miejska	2					K2_W05, K2_W06, K2_W11, K2_W13, K2S_CEB_W20, K2S_CEB_W21, K2_U04, K2_U05, K2_U06, K2_U07, K2_U09, K2_U12, K2S_CEB_U19, K2S_CEB_U22, K2_K01, K2_K03	30	60	2	1,0	T	E			S	Ob.
						2			30	60	2	1,2	T	Z		2,0	S	Ob.

6	**CEB004062**	Railways. Koleje	2					K2_W06, K2_W07, K2S_CEB_W19, K2S_CEB_W21, K2_U04, K2_U05, K2_U12, K2S_CEB_W19, K2S_CEB_W21, K2_K01, K2_K03, K2_K06	30	30	1	1,0	T	Z			S	Ob.
						2			30	60	2	1,1	T	Z		1,8	S	Ob.
7	**CEB004162**	Roads, streets and airports. Drogi, ulice i lotniska	2					K2_W01, K2_W06, K2_W09, K2S_CEB_W19, K2S_CEB_W20, K2_U01, K2_U08, K2_U12, K2_U16, K2S_CEB_U22, K2_K01, K2_K02, K2_K03	30	60	2	1,3	T	Z			S	Ob.
						2			30	60	2	1,3	T	Z		2,0	S	Ob.
8	**CEB008062**	Bridges. Mosty	2					K2_W03, K2_W04, K2_W05, K2_W06, K2_W07, K2_W10, K2S_CEB_W19, K2S_CEB_W21, K2_U02, K2_U04, K2_U05, K2_U07, K2_U08, K2_U11, K2_U12, K2S_CEB_U19, K2S_CEB_U22, K2_K01, K2_K02, K2_K03	30	60	2	1,3	T	E			S	Ob.
						2			30	60	2	1,3	T	Z		2,0	S	Ob.
9	**JZL100710BK**	Foreign language - level A1/A2. Język obcy - poziom A1/A (for foreign students - Polish language)		3				K1_U01, K1_U02, K1_K01, K1_K05, K1_K07, K1_K08	45	60	2	1,5	T	Z	O	2,0	KO	W

10		**Elective from block W:**		1					15	15	1	1,0	T	Z	O	1,0	KO	W
	WFW010000BK	Optional sports. Zajęcia sportowe - wybór sekcji.						K1_K08										
		Total	13	4	3	11	0		465	885	30	18,4				16,8		

Total in semester:

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS point for BK	Total number of ECTS points for P
lec	cl	lab	pr	sem					
13	4	3	11	0	465	885	30	18,4	16,8

Total accumulated:

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS point for BK	Total number of ECTS points for P
lec	cl	lab	pr	sem					
25	8	6	18	1	870	1785	60	33,9	31,5

Semester 3

Obligatory courses **number of ECTS points** **24**

No	Course / group of courses code	Name of course / group of courses (denote group of courses with symbol GK)	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form[2] of course / group of courses	Way[3] of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes[1]			university-wide[4]	practical P[5]	kind[6]	type[7]
1	**CEB008563**	Construction project management. Zarządzanie przedsięwzięciami budowlanymi	1					K2_W11, K2_W12, K2_W13, K2_W14, K2_W15, K2S_CEB_W21, K2_U01, K2_U08, K2_U13, K2_U14, K2S_CEB_U23, K2_K01, K2_K02, K2_K05	15	30	1	0,6	T	Z			KO	Ob.
				1					15	60	2	0,6	T	Z		1,5	KO	Ob.

2	**CEB009863**	Master thesis seminar. Seminarium dyplomowe					2	K2_W15, K2S_CEB_W16-K2S_CEB_W21, K2_U01, K2_U02, K2_U15, K2_U16, K2_U17, K2S_CEB_U18-K2S_CEB_U23, K2_K01, K2_K02, K2_K03, K2_K06	30	90	3	1,1	T	Z		2,7	S	Ob.
3	**CEB099963**	Master thesis (MSc). Praca dyplomowa magisterska						K2_W02-K2_W05, K2_W07, K2_W09, K2S_CEB_W16-K2S_CEB_W22, K2_U01, K2_U06-K2_U09, K2_U15, K2_U16, K2_U17, K2S_CEB_U18-K2S_CEB_U23, K2_K01, K2_K02, K2_K04		540	18	0,3	T	Z		18,0	S	Ob.
		Total	1	1	0	0	2		60	720	24	2,6				22,2		

Optional courses **number of ECTS points** **6**

No	Course / group of courses code	Name of course / group of courses (denote group of courses with symbol GK)	Weekly number of hours					Field-of-study educational effect symbol	Number of hours		Number of ECTS points		Form[2] of course / group of courses	Way[3] of crediting	Course/group of courses			
			lec	cl	lab	pr	sem		ZZU	CNPS	total	BK classes[1]			university-wide[4]	practical P[5]	kind[6]	type[7]
1		**Module from optional block 1**	1						15	30	1	0,6	T	Z			S	W
					1				15	60	2	0,6	T	Z		2,0	S	W
	CEB006063	Artificial intelligence in civil engineering. Sztuczna inteligencja w budownictwie						K2_W11, K2_W12, K2S_CEB_W22, K2_U16, K2_U17, K2S_CEB_U23, K2_K01, K2_K03										
	CEB006163	Modern testing methods for non- destructive inspection of building structures. Nowoczesne metody badań nieniszczących konstrukcji budowlanych						K2_W06, K2_W10, KS_CEB_W22, K2_U04, K2_U15, K2_U16, K2_U17, K2S_CEB_U21, K2S_CEB_U23, K2_K01, K2_K03, K2_K05, K2_K06										
	CEB007063	Adavnced building physics. Zaawansowana fizyka budowli						K2_W06, K2_W13, KS_CEB_W22, K2_U01, K2_U04, K2_U08, K2S_CEB_U23, K2_K01, K2_K02, K2_K03										

	CEB006363	Hydrology for building engineers. Hydrologia dla inżynierów budowlanych						K2_W01, K2_W02, K2_W03, K2_W09, K2_CEB_W22, K2_U07, K2_U08, K2_CEB_U23, K2_K01, K2_K02, K2_K03, K2_K04, K2_K05, K2_K06															

	CEB006863	Effective properties of composites - introduction to micro-mechanics. Właściwości efektywne kompozytów - wprowadzenie do mikromodelowania						K2_W02, K2_W05, K2S_CEB_W22, K2_U16, K2S_CEB_U23, K2_K01, K2_K03										
2		**Module from optional block 2**	1						15	30	1	0,6	T	Z			S	W
						1			15	60	2	0,6	T	Z		2,0	S	W
	CEB006563	Pre-stressed concrete structures. Betonowe konstrukcje sprężone						K2_W06, K2_W07, K2_W09, K2_W10, K2S_CEB_W16, K2S_CEB_W22, K2_U01, K2_U04, K2_U05, K2_U11, K2_U12, K2_U17, K2S_CEB_U18, K2S_CEB_U23, K2_K01, K2_K03										
	CEB006663	Timber structures. Konstrukcje drewniane						K2_W05, K2_W06, K2_W10, K2S_CEB_W22, K2_U04, K2_U05, K2_U07, K2_U12, K2S_CEB_U23, K2_K01, K2_K02										
	CEB006763	Conservation and strengthening of monumental heritage structures. Konserwacja i wzmacnianie konstrukcji zabytkowych						K2_W02, K2_W06, K2_W09, K2_W10, K2S_CEB_W22, K2_U04, K2_U05, K2_U12, K2S_CEB_U21, K2S_CEB_U23, K2_K01, K2_K02, K2_K06										

	CEB006963	Methods of applied statistics (geo-statistics). Metody statystyki stosowanej (geostatystyka)						K2_W01, K2_W09, K2S_CEB_W22, K2_U01, K2_U03, K2_U08, K2_U16, K2_U17, K2S_CEB_U19, K2S_CEB_U23, K2_K01, K2_K02, K2_K03, K2_K06										
	CEB008263	Sustainable housing. Budownictwo zrównoważone						K2_W06, K2_W13, KS_CEB_W22, K2_U01, K2_U04, K2_U08, K2S_CEB_U23, K2_K01, K2_K02, K2_K03										
		Total	2	0	1	1	0		60	180	6	2,4				4,0		

Total in semester:

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS point for BK	Total number of ECTS points for P
lec	cl	lab	pr	sem					
3	1	1	1	2	120	900	30	5,0	26,2

Total accumulated:

Total number of hours					Total number of ZZU hours	Total number of CNPS hours	Total number of ECTS points	Total number of ECTS point for BK	Total number of ECTS points for P
lec	cl	lab	pr	sem					
28	9	7	19	3	990	2685	90	38,9	57,7

Total number of ZZU hours: **990**
Hours - lectures: **42,4%**
Hours - other courses: **57,6%**
ECTS - BK: **43,2%**
ECTS - P: **64,1%**

2. Set of examinations in semestral arrangement

No	Course code	Names of courses ending with examination	Semester
		Civil Engineering	
1	**CEB007261**	Selected topics in mathematics. Matematyka - wybrane zagadnienia	1
2	**CEB008461**	Selected topics in structural mechanics. Statyka budowli - wybrane zagadnienia	1
3	**CEB007561**	Concrete structures - objects. Konstrukcje betonowe - obiekty	1
4	**CEB007661**	Metal structures - objects. Konstrukcje metalowe - obiekty	1
5	**CEB007962**	Dynamics. Dynamika budowli	2
6	**CEB008662**	Construction techniques and processes. Technologia robót budowlanych	2
7	**CEB003962**	Underground structures - urban infrastructure. Budownictwo podziemne - infrastruktura miejska	2
8	**CEB008062**	Bridges. Mosty	2

3. Allowable deficit of ECTS points after particular semesters

Semester	Allowable deficit of ECTS points after semester	Total number of points required for registration for the next semester
1	15	15
2	13	47

4. List of blocking modules

There are no blocked modules

Faculty Council resolution no. 516/333/2012-2016 from 24.06.2015.

In effect since 01.10.2015

Opinion of the faculty student government legislative body:

24.06.2015

Date Name and surname, signature of the student representative

24.06.2015

Date Dean’s signature