POLITECHNIKA CZĘSTOCHOWSKA
WYDZIAŁ BUDOWNICTWA
KIERUNEK: BUDOWNICTWO
KARTA OPISU

PRZEDMIOTU

Fel! Bokmärket är inte definierat.

Nazwa przedmiotu						Kod przedmiotu	Rok / Semestr	
Budownictwo ogólne i Wyposażenie Techniczne ***Civil Engineering and technical equipment***						**WB_BUD_D_I_BO1_03**	**II**	**3**
Rodzaj zajęć						**Poziom kwalifikacji**	**ECTS**	
Wykład	**Ćwiczenia**	**Laboratorium**	**Projekt**	**Seminarium**	**Egzamin**	stacjonarne I stopnia		
2	**-**	**-**	**2**	**-**	**-**	**S1**	**6**	
Specjalność	**KBI / TOZB / AwB**		**Rodzaj przedmiotu:**			**obowiązkowy**		
Jednostka prowadząca przedmiot:			***Katedra Geometrii i Grafiki Inżynierskiej***					
			Pokój 43, 47			***tel./fax: +48 (34) 325 09 06 +48 (34) 325 09 15***		
Prowadzący przedmiot:			Prof. nzw. dr hab. inż. arch. Mariusz Zadworny			mzadw@bud.pcz.czest.pl		
			Dr inż. arch. Nina Sołkiewicz-Kos			nkos@bud.pcz.czest.pl		

I. KARTA PRZEDMIOTU (SUBJECT CHARTER)	
CEL PRZEDMIOTU (SUBJECT OBJECTIVE)	
C01	Mastering of basic issues of civil engineering.
C02	Acquiring of knowledge and skills pertaining to technical demands and to criteria of construction elements' selection in buildings erected from small-dimentional elements.
C03	Getting acquainted with methods of information collection and preparing of assumptions for project enterprises.
C04	Mastering of construction, building and technical problems pertaining to designing and realization of buildings.
C05	Mastering of problems concerning construction physics and technology of building usage, allowing to create conditions of inner comfort and secure from influence of weather factors.
C06	Getting acquainted with building technologies, regulations and procedures implemented in designing and realization of building objects.
WYMAGANIA WSTĘPNE W ZAKRESIE WIEDZY, UMIEJĘTNOŚCI I INNYCH KOMPETENCJI (PRE-REQUISITE REQUIREMENTS FOR KNOWLEDGE, SKILLS AND OTHER COMPETENCES)	
1	General knowledge of descriptive geometry, physics and technical drawing
2	Knowledge of mathematical problems, of physics and chemistry on general level and engineering level.

EFEKTY KSZTAŁCENIA (LEARNING OUTCOME)	
EK1	Mastering of issues pertaining to designing and realization of building objects erected from small dimentional elements in traditional technology and by using modern building technologies.
Umiejętności ogólne (General skills/abilities)	
EK2	Ability to design building structures which fulfil norm technical requirements and principles of correct selection of construction elements.
Podstawowe umiejętności inżynierskie (Basic engineering skills/abilities)	
EK3	Ability to implement regulations pertaining to designing and functioning of living quarters, including the knowledge of current regulations of the Building Law, norms and standards of the Building Law.
EK4	Ability to efficiently use issues concerning insulation designing in buildings erected in traditional technology and with implementation of modern solutions.
Umiejętności bezpośrednio związane z rozwiązywaniem zadań inżynierskich (Skills directly related to solving of engineering tasks)	
EK5	Mastering of skills of implementation of modern information sources which concern solutions of designing tasks .
EK6	Ability to use basic knowledge pertaining to development trends in the area of a perticular engineering discipline.
Kompetencje personalne i społeczne (Personal and social competences)	
EK7	Ability to actively participate in projects run by interdisciplinary/international teams as well as to cooperate with a team which realizes project concepts.

TREŚCI PROGRAMOWE (CONTENTS OF STUDY)		
Forma zajęć (Type of classes – Lectures)		**Liczba godzin (Number of hours)**
W01	Engineering buildings in Poland and in the world: tenement houses,residential housing,apartament building,public utility buildings.	2
W02	Engineering construction: bridges, dams,tunnels,towers.	2
W03	Kinds of loads affecting the building.	2
W04	Setting out of the building and foundation trenches.	2
W05	Foundation of the building. Kinds of foundation.	2
W06	Wall structures made of bricks and natural stones.	2
W07	Rules of multi – layer walls designing.	2
W08	Rules of wooden walls' designing.	2
W09	Ceilings. Kinds and rules of construction of ceilings.	2
W10	Rules of chimney wall designing. Installation : natural vetilation	2
W11	Flat roofs. Kinds of rules of construction of flat roofs.	2
W12	.Wooden roofs. Presentation of characteristic construction solutions. .	2
W13	Stairs. Kinds of material construction solution.	2
W14	Installation :ventilation system, heating system.	2
W15	Plumbing.Wiring. Draining system.	2
	RAZEM(TOTAL) :	**30**
Forma zajęć – (Type of classes - Practical classes)		**Liczba godzin (Number of hours)**
Pr01	Discussion on rules of designing exercises. Presentation of projects in previous years. Disscussion on designing process issues.	2
Pr02 Pr03	Ground floor plan study – rules of dimensioning: external wall, window and door openings, lintels in a wall. .	4

Pr04	Building cross section study – rules of dimensioning: window and door openings, lintels in a wall.	2
Pr05	Ground floor plan study – rules of dimensioning: internal load-bearing walls, partitional walls.	2
Pr06 **Pr07**	Ground floor plan study - kitchen designing, bathroom and toilet designing. Plumbing.Wiring.Heating system.	4
Pr08	Ground floor plan study – staircase designing.	2
Pr09	Ground floor plan study – rules of chimney walls designing: smoke ducts, waste gas ducts, ventilation ducts..	2
Pr10 **Pr11**	First floor plan study – functional arrangment. Plumbing.Wiring.Heating system.	4
Pr12	Cross – section – roof structure. Plumbing.Wiring.Heating system.	2
Pr13	Detailed study – foundation and foundation wall, floor on the ground.	2
Pr14	Detailed study – ceiling between floors, lintels.	2
Pr15	Detailed study – external wall and construction of roof.	2
	RAZEM (TOTAL):	**30**

NARZĘDZIA DYDAKTYCZNE (TEACHING TOOLS)	
1.	Handbooks and scripts.
2.	Lecture with using of audio-visual devices
3.	Software: Autocad , Archicad.

II. SPOSOBY OCENY: METHODS OF ASSESSMENT (F - FORMATIVE; P - SUMMARY)			
F01	Assessment of self-preparation for classes		
F02	Assessment of student's performance concerning project elements – student's independent work		
P03	Tests' results and their evaluation		
P04	Assessment of carried-out projects		
OBCIĄŻENIE PRACĄ STUDENTA (STUDENT'S WORKLOAD)			
L.p.	**Forma aktywności (Activity)**	**Average number of hours/ECTS assigned for activity completion**	
		godz. (hours)	**ECTS**
1.	Contact hours with the supervising teacher – **lectures**	**20**	**6**
1.	Contact hours with the supervising teacher –**project**	**15**	
2.	Getting acquainted with assigned literature	10	
3.	Preparation for tests	10	
4.	Preparation for project classes	10	
5.	Execution of projects *(time excluded from project classes)*	30	
	RAZEM (TOTAL):	**95**	

LITERATURA PODSTAWOWA I UZUPEŁNIAJĄCA (BASIC AND SUPLEMENTARY LITERATURE)	
1.	Millais M. Building structures from concept to design. Spon Press Taylor & Francis Group. Londyn 2005
2.	Matteson D., Kennedy D., Baur S. Civil Engineering & Architecture. Delmar Cengage Learning NY USA 2010
3.	Killer W.K. Polsko - Angielsko - Niemiecki ilustrowany słownik budowlany. Arkady. Warszawa. 2006
4.	Neufert E. Podręcznik projektowania architektoniczno-budowlanego. Arkady. Warszawa. 1996
5.	Markiewicz P., Detale projektowe nowoczesnych technologii budowlanych. Archi Plus. Kraków 2004
6.	Michalak H., Pyrak S.: Domy jednorodzinne. Konstruowanie i obliczanie. Arkady. Warszawa 2004
7.	Mielczarek Z.: Nowoczesne konstrukcje w budownictwie ogólnym. Arkady. Warszawa 2001
8.	Peła R.: Projektowanie konstrukcji murowych i stropów w budownictwie jednorodzinnym. Cz II Konstrukcje murowe niezbrojone. Wydawnictwo Politechniki Łódzkiej. Łódź 2004
9.	Poradnik kierownika budowy. Tom I, II. Arkady. Warszawa 1989/91
10.	Stefańczyk B.: Budownictwo Ogólne. Materiały Budowlane i systemy budowlane. Tom I. Arkady. Warszawa 2010.
11.	Prawo budowlane, rozporządzenia do prawa budowlanego
12.	Warunki techniczne wykonania i odbioru robót budowlanych. Pod red. dr inż. Adama Ujmy Tom I, II, III, IV wyd. Verlag Dashofer Warszawa 2005/06/07/08/09/10/11
13.	Żenczykowski W.: Budownictwo Ogólne. Elementy i konstrukcje budowlane Tom 2/1, 2/2 . Arkady. Warszawa 1990
14.	Rozporządzenie Ministra Infrastruktury z dnia 12 kwietnia 2002 r. w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie Dz. U. 2002 nr 75 poz. 690 ze zmianami (Dz. U. 2008 nr 201 poz. 1238)
15.	Schabowicz K., Gorzelańczyk T., Materiały do ćwiczeń projektowych z budownictwa ogólnego. Dolnośląskie Wydawnictwo Edukacyjne. Wrocław 2009
16.	Czasopisma: Przegląd budowlany, Materiały Budowlane, Izolacje

MACIERZ REALIZACJI EFEKTÓW KSZTAŁCENIA (MATRIX OF LEARNING OUTCOME EXECUTION)					
Learning outcome for the course	**Reference to the effect defined for the field of study**	**Objectives of the course**	**Contents of study**	**Teaching tools**	**Methods of assessment**
EK1	K_W09 K_W13	C01,C02	W2÷15, Pr5÷Pr15	1,2,3	F01÷F02, P01÷P02
EK2	K_U02	C01, C02, C03	Pr5÷Pr15	1,2,3	F01÷F02, P01÷P02
EK3	K_U12	C01, C02, C03, C04, C05, C06	Pr5÷Pr15	1,2,3	F01÷F02, P01÷P02
EK4	K_U12 K_U22	C01, C02, C03, C04, C05, C06	Pr5÷Pr15	1,2,3	F01÷F02, P01÷P02
EK5	K_U12	C01, C02, C03, C04, C05, C06	Pr5÷Pr15	1,2,3	F01÷F02, P01÷P02
EK6	K_U22	C01, C02, C03, C04, C05, C06	Pr5÷Pr15	1,2,3	F01÷F02, P01÷P02
EK7	K_K01	C04	W2÷15, Pr3÷Pr4	1,2,3	F01÷F02, P01÷P02

II. FORMY OCENY – SZCZEGÓŁY (METHODS OF ASSESSMENT – DETAILS)

OCENY (MARKS)	EFEKTY KSZTAŁCENIA (LEARNING OUTCOME)
	EK1
2,0	Student does not have basic knowledge pertaining to building objects constructed from smalldimentional elements.
3,0	Student mastered the knowledge of basic construction problems. He/she knows the most important norms and standards pertaining to the Building Law.
3,5	Student has incomplete knowledge in regard to realization and functioning of building objects. He/she knows norms and standards pertaining to the Building Law.
4,0	Student has the knowledge concerning realization and functioning of building objects, dwelling buildings and public services buildings.
4,5	Student has the knowledge concerning realization and maintenance of building objects, dwelling buildings and pubic service buildings and has basic knowledge pertaining to development trends regarding represented engineering discipline.
5,0	Student has complete knowledge pertaining to realization and maintenance of building objects, dwelling buildings and pubic service buildings. Student has vast knowledge of development trends regarding represented engineering discipline.
	EK2
2,0	Student is not able to implement technical regulations and criteria for selecting construction elements and technological solutions.
3,0	Student is able to solve some basic construction, building and technical problems for buildings erected in traditional techology.
3,5	Student is able to slove most of basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task.
4,0	Student is able to slove most of basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task.
4,5	Student is able to slove basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task.
5,0	Student has the ability to use the knowledge pertaining to implementation of criteria for selction of construction elements and technological solutions in buildings erected in traditional technology.
	EK3
2,0	Student is not able to implement technical regulations and criteria for selecting construction elements, technological solutions.
3,0	Student is able to solve some basic construction, building and technical problems for buildings erected in traditional techology based on the regulations covered by the Building Law.
3,5	Student is able to slove basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task.
4,0	Student is able to slove most of basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task.
4,5	Student is able to slove the most important construction and structural problems basing himself on available literature sources or/and the internet in order to solve a given task. Student mastered the ability to implement technical regulations and technological solutions in buildings erected in traditional technology.
5,0	Student has the ability to use the knowledge pertaining to implementation of technical regulations, criteria for selction of construction elements and technological solutions in buildings erected in traditional technology.
	EK4
2,0	Student is not able to implement regulations pertaining to insulation of building barriers, did not master applicable technological solutions.
3,0	Student is able to solve basic problems concerning insulation of building barriers and knows basic technological solutions.
3,5	Student is able to slove most of basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task.

4,0	Student is able to slove most of basic problems pertaining to insulation of building barriers and is able to solve them basing himself on available literature sources or/and the internet in order to solve a given task.
4,5	Student is able to slove the most important problems pertaining to insulation of building barriers basing himself on available literature sources or/and the internet.
5,0	Student is able to solve the most important problems pertaining to insulation of building barriers basing himself on available literature sources or/and the internet – he is well-oriented about development trends of modern technology of insulation materials.
EK5	
2,0	Student is not able to implement technical regulations and criteria for selecting construction elements as well as technological solutions.
3,0	Student is able to solve some basic construction, building and technical problems for buildings erected in traditional techology basing himself on the literature dealing with the topic.
3,5	Student is able to slove most of basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task.
4,0	Student is able to slove the most important construction and building problems basing himself on available literature sources or/and the internet in order to solve a given task.
4,5	Student efficiently implements the knowledge pertaining to implementation of technical regulations, criteria for selction of construction elements and technological solutions in buildings erected in traditional technology
5,0	Student is able to solve basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task– he uses the knowledge pertaining to technical regulations covering development trends within the scope of the represented engineering discipline.
EK6	
2,0	Student is not able to implement technical regulations and criteria for selecting construction elements as well as technological solutions.
3,0	Student is able to solve some construction and structural problems concerning buildings erected in traditional techology.
3,5	Student is able to slove basic construction problems pertaining to buildings erected in traditional technology basing himself on available literature sources or/and the internet in order to solve a given task.
4,0	Student is able to slove most of basic construction problems pertaining to buildings erected in traditional technology basing himself on available literature sources or/and the internet in order to solve a given task.
4,5	Student is able to slove basic construction problems basing himself on available literature sources or/and the internet in order to solve a given task.
5,0	Student has complete knowledge of technical regulations, criteria for selction of construction elements and technological solutions in buildings erected in traditional technology and he is well-
	oriented about development trends of civil engineering.
EK7	
2,0	Student is not able to work either individually or on a team.
3,0	Student is able to work individually. Student’s small contribution and commitment to the team work.
3,5	Student is able to work both individually and on a team. Student’s sufficient contribution and commitment to the team work.
4,0	Student is able to work both individually and on a team. Student’s satisfactory contribution and commitment to the team work.
4,5	Student is able to work both individually and on a team. Student’s high contribution and commitment to the team work.
5,0	Student is able to work both individually and on a team. Student’s very high contribution and commitment to the team work.

III. INNE PRZYDATNE INFORMACJE O PRZEDMIOCIE (OTHER USEFUL INFO ON THE SUBJECT)	
1.	Information on where to get acquainted with presentations of design projects, auxiliary materials and literature:
	Basic information on the subject is posted in the show-cases next to the rooms no 43 and 47
2.	Information on the venue of courses/classes:
	Information on the venue of courses are posted in the show-case on 1st and 2nd floor at the Civil Engineering dept.
3.	Information on courses/classes timetable (week day/ hour):
	The show-case at the Civil Engineering dept., the homepage of the Civil Engineering dept.
4.	Information on consultations (time and place):
	Consultations' schedule posted on the doors of room 43 and 47 in the building housing the Civil Engineering dept., at Akademicka str. 3 (1st and 2nd floor)