

STUDY MODULE DESCRIPTION FORM		
Name of the module/subject building systems technology		Code 1010101171010114378
Field of study Civil Engineering First-cycle Studies	Profile of study (general academic, practical) (brak)	Year /Semester 4 / 7
Elective path/specialty -	Subject offered in: Polish	Course (compulsory, elective) elective
Cycle of study: First-cycle studies	Form of study (full-time, part-time) full-time	
No. of hours Lecture: 20 Classes: - Laboratory: - Project/seminars: -		No. of credits 3
Status of the course in the study program (Basic, major, other) (brak)		(university-wide, from another field) (brak)
Education areas and fields of science and art technical sciences Technical sciences		ECTS distribution (number and %) 3 100% 3 100%
Responsible for subject / lecturer: Józef Jasiczak email: jozef.jasiczak@put.poznan.pl tel. 61 6652494 Budownictwa i Inżynierii Środowiska Piotrowo5, Poznań		Responsible for subject / lecturer: Marlena KUCZ email: marlena.kucz@put.poznan..pl tel. 616652464 Budownictwa i Inżynierii Środowiska Piotrowo5, Poznań
Prerequisites in terms of knowledge, skills and social competencies:		
1	Knowledge	The student has a basic knowledge of technology and building materials
2	Skills	Able to obtain information from the literature and other sources. It can combine the information obtained.
3	Social competencies	The student should be aware of the consequences of their decisions. Understands the need for learning throughout their working lives. He understands the need for cooperation and teamwork.
Assumptions and objectives of the course: -The aim of the course is to acquaint students with the technology implementation of housing facilities, utilities and industrial construction site. The building, technology implementation, method of construction objects, technological systems. Technologies and systems for precast concrete construction.		
Study outcomes and reference to the educational results for a field of study		
Knowledge:		
1. Knows the principles of design and analysis of selected objects of general construction and has expertise in the development, maintenance and demolition of buildings - [K_W09, T1P_W04 T1P_W05]		
2. Knowledge of technology works and prefabrication, Knows the rules of the industrial production of building materials and components - [K_W12, T1P_W02 T1P_W04]		
3. Knows the most commonly used building materials and basic elements of manufacturing them - [K_W14 T1P_W02 T1P_W05 T1P_W10]		
Skills:		
1. Student uses information technology, Internet resources and other sources to search for information, communication and acquisition software to support the work of the designer and organizer of the construction works. Student is able to integrate the information obtained, to make their interpretation, as well as to draw conclusions and formulate and justify opinion - [K_U16 T1P_U01 T1P_U03 T1P_U04 T1P_U05]		
2. Student Knows the rules of production and use, and can make the selection of building materials to the end to design technological solutions - [K_U19 T1P_U01 T1P_U13]		
Social competencies:		
1. Student understands the need of team effort in solving theoretical and practical problems - [K_K01 T1P_K03 T1P_K04]		
2. . Students can see the need for continuing to increase the depth and breadth of their knowledge - [K_K03 T1P_K01]		

Assessment methods of study outcomes		
-Final test, scale of marks [%] 91-100, very good (A) 81-90, good+ (B) 71-80, good (C) 61-70, satisfactory+ (D) 51-60, satisfactory (E) less than 50, fail (F) Continuous assessment of progress made by students, their activity in gaining knowledge/skills		
Course description		
-Evolution of construction technologies in the years 1945 - 2014 Overview and characteristics of the forming equipment for concrete construction technology monolithic Climatic conditions of the execution of works of concrete at a construction site Support of construction projects Prefabrication. Prefabrication plants. Prefabrication systems: Szczecin, Rataje, Winogrody. Technological defects prefabricated buildings and repair methods. Modernization of prefabricated buildings. steel and wooden structures. Building insulation systems.		
Basic bibliography:		
1. ? Orłowski Z. : Podstawy technologii betonowego budownictwa monolitycznego. PWN, Warszawa, 2013, s.336 2. ? Korona L.: Innowacyjne technologie deskowań traconych. Budownictwo i Inżynieria Środowiska. 2/2011, s. 307-317 3. ? Jasiczak J.: Technologie budowlane II. Poznań, 2003 , s. 200. Wityryna Alma Mater. Instytut Konstrukcji Budowlanych, Poznań 4. ? Neville AM.: Właściwości betonu. Polski Cement, Kraków 2013 5. ? Biliński Tadeusz, Gaczek Wojciech - Budownictwo systemowe, PP Poznań 1978 6. Starosolski Włodzimierz - Połączenia w żelbetowych prefabrykowanych konstrukcjach szkieletowych. Wyd. Politechniki Śląskiej, Gliwice 2006		
Additional bibliography:		
1. ? PN-EN 1168 Prefabrykaty z betonu - sprężone płyty kanałowe 2. ? PN-EN 13747 Prefabrykaty z betonu - elementy stropowe płytowe 3. ? Sieczkowski Józef, Nejman Tadeusz - Ustroje budowlane, Warszawa 2002, rozdział dot. Prefabrykacji 4. ? ?Żenczykowski Władysław ? Budownictwo ogólne, tom 2/2 5. ? Katalogi systemowe		
Result of average student's workload		
Activity	Time (working hours)	
1. lecture	20	
2. studying the source materials (literature, internet etc.)	30	
Student's workload		
Source of workload	hours	ECTS
Total workload	50	3
Contact hours	20	1
Practical activities	0	0