

COURSE DESCRIPTION CARD

Faculty of Civil Engineering and Environmental Sciences									
Field of study	Civil Engineering							Degree level and programme type	Bachelor's degree
Specialization/ diploma path	Building Process Engineering							Study profile	academic profile
Course name	Technology of building products							Course code	IS-FCEE-00090W
								Course type	ERASMUS
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	winter
	15			15				No. of ECTS credits	3
Entry requirements	Civil engineering materials, Concrete technology								
Course objectives	To familiarize students with technologies for the production of small-sized building elements. Teaching students methods of calculating the demand for raw materials. Teaching students to prepare technological schemes of the production process. Developing skills in critical selection of technological solutions. Preparing students for conducting scientific research.								
Course content	<p><u>Lecture:</u> Technology of building ceramics production. Technology of autoclaved aerated concrete (AAC) production. Technology of sand lime bricks production.</p> <p><u>Project:</u> Technological and organizational design of the aerated concrete plant with the given production capacity. General information about the plant. Production assortment characteristics. Calculation of demand for raw materials. The technological and organizational concept of the plant. Land development of the plant.</p>								
Teaching methods	informative lecture, problem lecture, discussion of sample design solutions, implementation of individual topics of design exercises by students								
Assessment method	Lecture - written exam, project - realization, presentation and discussion of the project								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
L01	student knows and understands the operations of the production process of selected construction products, health and safety requirements at the production plant							K_B1_W04 K_B1_W08	
L02	student is able to calculate the demand for raw materials, prepare a technological diagram of the production process and choose machines and devices for individual stages of the production process							K_B1_U02 K_B1_U10	
L03	student is able to design the land development of the plant							K_B1_U03 K_B1_U10	
L04	student is able to communicate using specialized terminology in the field of technology for the production of construction products							K_B1_U12	
L05	student is ready to critically assess his knowledge and received content in the field of technology for the production of construction products and is ready to use knowledge in solving problems in the field of construction as well as to consult experts when solving a problem on their own							K_B1_K01 K_B1_K02	

Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed	
L01	written test of the lecture, project presentation and its discussion	L, P	
L02	written test of the lecture, project presentation and its discussion	L, P	
L03	project presentation and its discussion	P	
L04	written test of the lecture, project presentation and its discussion	L, P	
L05	written test of the lecture, project presentation and its discussion	L, P	
Student workload (in hours)		No. of hours	
Calculation	lecture attendance	15	
	participation in projects	15	
	preparation for tests	15	
	preparation for projects	10	
	work at home related to the implementation of an individual topic of project exercises	15	
	participation in student-teacher sessions	5	
	TOTAL:	75	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		20	1,0
Student workload – practical activities		55	2,0
Basic references	1. Budownictwo ogólne T.1. Materiały i wyroby budowlane. Arkady, Warszawa 2005.		
	2. Zapotoczna-Sytek G., Balkovic S.: Autoklawizowany beton komórkowy: technologia, właściwości, zastosowanie. PWN / Stowarzyszenie Producentów Betonów, Warszawa 2013		
Supplementary references	3. Stacy Taus-Bolstad: From Clay to Bricks, Publisher: Lerner Classroom, 2003		
	4. Szymański E.: Technologia materiałów budowlanych – działy wybrane. Wydawnictwo Politechniki Białostockiej, Białystok 2003		
Organisational unit conducting the course	5. Andrew Short, William Kinniburgh. Lightweight concrete. London. Applied Science Publishers, 1978		Date of issuing the programme
	Department of Construction and Road Engineering		
Author of the programme	Małgorzata A. Lelusz, PhD Eng.		04.03.2020

L – lecture, C – classes, LC – laboratory classes, P – project, SW – specialization workshop, FW - field work, S – seminar