

COURSE DESCRIPTION CARD

Faculty of Civil Engineering and Environmental Sciences										
Field of study								Degree level and programme type		
Specialization/ diploma path								Study profile	Academic profile	
Course name	Maintenance and assessment of the technical condition of buildings							Course code	IS-FCEE-00217W	
								Course type	Erasmus	
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	winter	
	15	30						No. of ECTS credits	3	
Entry requirements	General building engineering; Concrete structures, Building physics; Technology of construction works; Masonry and wooden structures									
Course objectives	The purpose of this module is to: present the issues and problems of administration and management of buildings; "life cycle" of a construction object (construction, exploitation and demolition); teach how to identify problems influencing building maintenance in proper technical and exploitation conditions; mastering the issues related to the assessment of buildings in terms of construction and thermal quality as well as heating and ventilation installations.									
Course content	<p><u>Lecture:</u> The role of participants in the construction process in the administration of buildings, forms of property ownership. Rules for the preparation of technical inspections. The content and components of the building book. Methods of assessing the technical condition of buildings. Life Cycle Assessment of buildings. Renovation and ongoing operation of buildings. Demolition of buildings. Causes of damage to buildings. Durability of the building and its components. Reasons for wear and tear on buildings. Methods of assessing the technical condition of buildings. Preparation of a report on the inspection of the condition of the building. Renovations inside the premises. Making decisions about the consent for renovation, the role of the renovation plan and house order regulations. Examples of technical condition assessment in selected facilities.</p> <p><u>Classes:</u> As part of the exercises, for the selected building, the student performs: facility book, protocols from periodic inspection of the technical condition, assessment of the technical wear and tear of the building with the selected method.</p>									
Teaching methods	Lectures and classes									
Assessment method	Written test, evaluation of student's presentations, completion of project									

Symbol of learning outcome	Learning outcomes	Reference to the learning outcomes for the field of study	
L01	Student (graduate) identifies and describes damages in a building	K_W07, K_W18, K_W20	
L02	Student (graduate) proposes a range of repairs and modernization of elements of a selected building	K_W18, K_W19	
L03	Student (graduate) diagnoses technical conditions of a construction	K_W20, K_U13	
L04	Student (graduate) proposes and analyses methods of repair	K_U14	
L05	Student (graduate) uses Internet and other data bases	K_U23	
Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed	
L01	written test, student's presentation	L, C	
L02	student's presentation, completion of the student's exercise	C	
L03	student's presentation, completion of the student's exercise	C	
L04	student's presentation, completion of the student's exercise	C	
L05	student's presentation, completion of the student's exercise	C	
Student workload (in hours)		No. of hours	
Calculation	lecture attendance	15	
	participation in classes	30	
	preparation for project classes	20	
	work on presentation	15	
	participation in student-teacher sessions related to the class	2	
	preparation for and participation in tests	10	
	TOTAL:	92	
Quantitative indicators		HOURS	No. of ECTS credits
Student workload – activities that require direct teacher participation		47	1,8
Student workload – practical activities		65	2,6
Basic references	1. Wood Brian, Building Maintenance, John Wiley & Sons, 2009. 2. Garg M.K., Repair and Maintenance of Buildings, Ishan Publications, 2018. 3. Ratay R.T., Structural Condition Assessment, 2005.		
Supplementary references	1. Gray J., Isaacs N., Kernohan D., McIndoe G., Baird G., Building Evaluation Techniques, McGraw-Hill, 1995.		
Organisational unit conducting the course	Department of Construction and Road Engineering	Date of issuing the programme	
Author of the programme	Dorota Małaszkiwicz, PhD, CivEng	10.03.2021	

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