

## 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	Earth Science							Course code	IS-FCEE-00118W/S
								Course type	Erasmus
Forms and number of hours of tuition	L	C	LC	P	SW	FW	S	Semester	winter/summer
	30							No. of ECTS credits	2
Entry requirements	<i>does not concern</i>								
Course objectives	Students can describe and interpret geological phenomena and processes in connection with environmental conditions, identify geologic hazards.								
Course content	<p><u>Lecture:</u> Introduction to Earth Science. Minerals and rocks. Earth's interior. Earthquakes. Fundamentals of plate tectonics. Mountain building. Volcanoes and other igneous activity (types of volcanoes, volcanic hazards, intrusive igneous bodies). Extrusive, and intrusive igneous rocks. Metamorphism and metamorphic rocks. Weathering and soil (mechanical weathering, chemical weathering, the products of weathering and erosion). Mass wasting. Stream erosion and deposition. Groundwater. Glaciation (glaciers, glacial erosion, glacial deposition). Deserts and Wind. Sediments and Sedimentary Rocks (clastic, chemical and organic sedimentary rocks). Geologic time. Earth's history. Earth's resources. Shorelines. Ocean.</p>								
Teaching methods	Informative lecture								
Assessment method	Lecture: final test								
Symbol of learning outcome	Learning outcomes							Reference to the learning outcomes for the field of study	
L01	Student knows the phenomena and processes occurring both inside and on the surface of the Earth.							IS1_W07	
L02	Student can assess the quality of information about the environment from various sources.							IS1_U04	
L03	Student can interpret geological phenomena and processes in connection with environmental conditions.							IS1_U14	

Symbol of learning outcome	Methods of assessing the learning outcomes	Type of tuition during which the outcome is assessed	
L01	written test	L	
L02	written test	L	
L03	written test	L	
Student workload (in hours)		No. of hours	
Calculation	participation in lecture	30	
	participation in consultations	5	
	preparation for passing the lecture	10	
	<b>TOTAL:</b>	<b>50</b>	
Quantitative indicators		HOURS	No. of ECTS credits
<b>Student workload – activities that require direct teacher participation</b>		35 h	2
<b>Student workload – practical activities</b>		10 h	0,5
<b>Basic references</b>	Blyth F., Freitas M., 1984. A Geology for Engineers. CRC Press Desonie D., 2012. Earth Science For High School. eBooks at CK-12 FOUNDATION. Earle St., 2019. Physical Geology. eBooks at BCcampus Open Education. King Ch., 2010. The planet we live on: The beginnings of the Earth Sciences. ebooks at Learning Development Institute		
<b>Supplementary references</b>	Bowen R., 1984. Geology in engineering. Elsevier, New York. Hencher St., 2012. Practical Engineering Geology. CRC Press.		
<b>Organisational unit conducting the course</b>	<b>Department of Agri-Food Engineering and Environmental Management</b>	<b>Date of issuing the programme</b>	
<b>Author of the programme</b>	<b>Piotr Kondratiuk, PhD</b>	<b>07.03.2023</b>	

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