Attatchment no. 4

SUBJECT/MODULE SYLLABUS*

1.	Subject/module name Introduction to the Earth science
2.	Discipline archaeology
3.	Lecture language Polish
4.	The entity conducting subject Institute of Archaeology
5.	Subject/module code 22-AR-S1-02-WdNoZ
6.	Type of subject/module *(obligatory or optional)* obligatory
7.	Field of study (specialization)* archaeology
8.	Level of studies *(1st degree*, 2nd degree*, long-cycle master's studies*, name of the Doctoral College*)* 1st degree
9.	Year of studies *(if applicable*) 1st year
10.	Semester *(winter or summer)* winter
11.	Form of classes and number of hours (including number of hours of online classes*) lecture 30 hours
12.	Prerequisites in terms of knowledge, skills and social competences forthe subject/module None
13.	Learning objectives for the subject Introduction to the history of Earth sciences, including the methods of cartographic projections in the geology (artifacts, maps, mapping systems). Introducing the basics of the methodological natural sciences, including the essence and meaning of phenomenology in the description and researching phenomena and processes. Familiarization the listener with stochastic and phenomenological categorization of phenomena, processes and events and their geological recording. Discussion of the structure of the Earth and its history as a planet. Space on Earth and its evolution over time (continents, oceans, lands and seas). Role overview the most important elements, compounds, minerals and rocks that make up the Earth in the context of their occurrence and where deposits are obtained by humans). Molds occurrence of

	deposits and methods of their exploitation. Basics of environmental geology (recorded in sediments and rocks of volcanogenic environmental processes - geodynamics, seismicity, climate, hydrological and hydrogeological changes and geoenvironmental events). Familiarization with methods of reconstructing ancient environments and processes that prevailed and shaped the Earth's surface. Familiarization with the basics of the absolute dating methods. Familiarization with modern methods of mapping of the land surface and the possibilities of using artifacts and geofacts for paleogeographic reconstructions
14.	Program content: 1. Introduction: sedimentation processes, sediments and sedimentary rocks - definitions, classifications, basic methods 2. Textural features of sediments - methods of process-environmental description and interpretation 3. Structural features of sediments - methods of description and process-environmental interpretation 4. Diagenetic features and soil processes - methods of process-environmental description and interpretation 5. Terrestrial sedimentary environments (processes, sediments, fossil record) 6. Recognition and description of geological and environmental processes (cyclicality, evolution) 7. Recognition and description of geological and environmental events (probability of events, their recording and impact on other environmental processes) 8. Geochronology and methods for determining the superposition of phenomena and processes 9. Methods of mapping the land surface (history, modern methods)

	10. Methods of mapping the geological structure (cross-sections, block diagrams) 11. Modern cartographic methods (LIDAR, DEM, 3D laser scanning, shallow geophysics) 12. Methods of determining the age of geological phenomena 13. Deposits of raw materials, their importance for the location and migration of people and methods of exploitation 14. Ground and surface waters, their importance for human migration and methods of exploitation 15. Geohazards - types, assessment methods, methods of prevention 16. Geohazards (event geoarchaeology)	
	Assumed learning outcomes	Appropriate directional symbols learning outcomes
	Knows the basic concepts and terminology used in archaeology and other humanities, especially history, cultural anthropology, selected natural sciences and sciences about land with which archeology cooperates	K_W02
	Has structured methodological knowledge and range of theories used in archeology and in various directions of archaeological, archaeological and natural, and natural research	K_W03
	Has basic knowledge of the connections between archaeology and scientific fields and disciplines that are the basis of specialties developed within them, such as environmental archaeology	K_W05

	(bioarchaeology), underwater archaeology, architectural archaeology, conservation of archaeological artefacts	
	Able to search, analyze, evaluate, select and use information from using various sources and methods	K_U01
	Has basic skills in: - formulating scientific problems and their analysis by selecting appropriate methods and tools research, - development and presentation of research results, - solving problems in fields and scientific disciplines , relevant to the field of study	K_U02
	Is able to recognize various types of cultural products appropriate for the discipline being studied and conduct their critical analysis and interpretation with using typical research methods, in order to determine their content and meanings, including chronological-cultural affiliation and function	K_U05
	Has substantive arguing skills using the views of others authors and formulating conclusions	K_U06
	Understands the need for lifelong learning	
	Is able to appropriately determine priorities for	K_K01

	carrying out a task specified by yourself or others Appreciates the role of the humanities and related sciences cooperating in shaping social bonds at the local and supra-local level	K_K03 K_K08
15.	Required and recommended literature (sources, studies, textbooks, etc.) Keller E.A. 1999. Introduction to Environmental Geology, Prentice Hall, Reading H.G. 1986. Sedimentary Environments and Facies, Blackwell Sc. Friedman G.M., Sanders J.E. 1978. Principles of Sedimentology, Willey & Sons, Inc., Nichols G. 1999. Sedimentology and Stratigraphy, Blackwell Thiry M., Simon-Coincon R. 1999. Palaeoweathering. Palaeosurfaces and Related Continental Deposits, Blackwell Science Migoń P. 2012. Geomorfologia, Warszawa: PWN Ollier C., Pain C. 2000. Origin of Mountains, Routledge Stankowski W. 1996. Wstęp do geologii kenozoiku, ze szczególnym odniesieniem do terytorium Polski, Poznań: Wydawnictwo Naukowe UAM	
16.	Methods of verifying the assumed learning outcomes: oral assessment, essay preparation	
17.	Conditions and form of passing individual components of the subject/module: attending 75% of classes, preparing a written essay on a topic bordering on geology and archaeology agreed with the instructor , (2-3 pages with sources of information)	
18.	Student/PhD student workload	
	the form of carrying out classes by the student*/doctoral student*	the number of hours allocated to carry out a given type of classes
	classes (according to the study plan) with the instructor: - lecture:	30
	student/doctoral student's own work (including participation in group work), e.g.: - reading the indicated literature:	20

	- preparation of written work: - preparation for tests and the final exam:	10
	Total number of hours	60
	Number of ECTS points (*if required*)	2

(T) – implemented in a traditional way
(O) – implemented online

* remove unnecessary