University of Gdańsk

Subject card

Subject name and code	Practical paleoecology - Laboratory classes, PG_00200216		
Field of study	Archaeology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2028/2029
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	6	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Institute of Archaeology -> Faculty of History -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Joanna Święta-Musznicka	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	15.0	0.0	0.0	15

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	15	2.0	8.0	25

Subject objectives

To provide knowledge on research methods for reconstructing changes in the natural environment in the past, including bio-indicative methods used in the context of settlement studies. To provide knowledge on climate and vegetation changes in the Quaternary period (characterisation of the natural environment at the end of the last glaciation and in the Holocene and the role of settlement). To provide knowledge about the history of human use of plants in the past. To develop knowledge of the conditions for effective cooperation with natural scientists at archaeological sites.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[ARCHL3_W06] Knows and understands at an advanced level the most important theories, research methods and tools of the archaeology workshop	Is aware of the research methods and tools of the workshop of the palaeoecologist and archaeobotanist and their use in archaeological site work. Has knowledge of climate and its changes and knows the history of human use of plants.	[SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
[ARCHL3_K02] Is ready to recognize the importance of knowledge in solving cognitive and practical problems and to consult experts in case of difficulties in solving the problem on his own in aspect of office analyses and field work	Is ready to acknowledge the knowledge of palaeoecologists and archaeobotanists and to consult experts when planning research and solving questions about botanical materials.	[SK2] presentation/project/paper/ report [SK5] implementation of a problem task
[ARCHL3_U07] Is able to cooperate with other people as part of team work (also of an interdisciplinary nature) both at the stage of fieldwork and development of results	Is able to undertake teamwork in collaboration with palaeoecologists and archaeobotanists.	[SU1] oral statement/conversation/ discussion [SU3] text preparation/written work [SU8] observation of student's independent or team work

Subject contents	Practical use of bioindication (plant, animal organisms) in describing natural and highly transformed communities.Methods of collecting material for palaeoecological and archaeobotanical studies.Principles of storage, preservation and laboratory treatment of samples for palaeoecological and archaeobotanical studies.Identification of basic types of pollen grains, cereal remains, weeds and selected animal remains.Principles of sediment description and determination (Troels-Smith method).Planning cooperation between archaeologist and palaeoecologists and archaeobotanists.
Prerequisites and co-requisites	Credit for courses: Elements of Earth Sciences in Archaeology, Paleoecology with elements of archaeobotany.Knowledge of natural sciences at high school level, knowledge of Quaternary stratigraphy, knowledge of the most important methods of absolute dating.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
report	51.0%	25.0%
report	51.0%	25.0%
report	51.0%	25.0%
report	51.0%	25.0%

Recommended reading

Basic literature	Berglund B.E. 1986. Handbook of Holocene Palaeoecology and Palaeohydrology. Wiley & Sons, Chichester-New York Dybova-Jachowicz S., Sadowska A. 2003. Palinologia. Instytut Botaniki im. W. Szafera PAN, Kraków. Lityńska-Zając M., Wasylikowa K. 2005. Przewodnik do badań archeobotanicznych. Vademecum Geobotanicum. Sorus, Poznań. Tobolski K. 2000. Przewodnik do oznaczania torfów i osadów jeziornych. PWN, Warszawa Makohonienko M., Makowiecki D., Kurnatowska Z. 2007. Studia interdyscyplinarne nad środowiskiem i kulturą człowieka. Środowisko-CzłowiekCywilizacja 1. Ser. Stowarzyszenia Archeologii Środowiskowej, Wyd. Bogucki, Poznań
Supplementary literature	Alverson K.D., Bradley R.S., Pedersen T.F. 2003. Paleoclimate, Global Change and the Future. Springer, Berlin-Heidelberg-New York. Birks H.J.B., Birks H.H. 1980. Quaternary Palaeoecology. E. Arnold, London. Jacomet S., Kreuz A. 1999. Archäobotanik. Aufgaben, Methoden und Ergebnisse vegetations- und agrargeschichtlicher Forschung, Eugen Ulmer, Stuttgart. Lindner L. 1992. Czwartorzęd. Osady, metody badań, stratygrafia. Wyd. PAE, Warszawa. Lityńska-Zając M. 2005. Zbiorowiska chwastów polnych w pradziejach i we wczesnym średniowieczu. Instytut Archeologii i Etnologii PAN, Kraków. Mackay A., Battarbe R., Birks J., Oldfield F. 2003. Global change in the Holocene. Arnold, New York.
eResources addresses	

Example issues/ example questions/ tasks being completed	Paleocological sediment descriptions and interdisciplinary research planning. Types of material fossilization. Morphological structure of selected plant and animal remains. Use of ecological indicators and bioindicator values of organisms in environmental reconstructions.
Work placement	Not applicable

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