

**SUBJECT/MODULE SYLLABUS\***

1.	Subject/module name Non-invasive methods of archaeological prospection
2.	Discipline archaeology
3.	Lecture language Polish
4.	The entity conducting subject Institute of Archaeology
5.	Subject/module code
6.	Type of subject/module ( <i>obligatory or optional</i> ) optional
7.	Field of study (specialization)* archaeology
8.	Level of studies ( <i>1st degree*, 2nd degree*, long-cycle master's studies*, name of the Doctoral College*</i> ) 2nd degree
9.	Year of studies ( <i>if applicable</i> )
10.	Semester ( <i>winter or summer</i> )
11.	Form of classes and number of hours (including number of hours of online classes*) seminar 15 hours
12.	Prerequisites in terms of knowledge, skills and social competences for the subject/module  Knowledge: knowledge of basic concepts in the field of archaeological research methodology and principles of archaeological documentation, completed course in archaeology propaedeutics and archaeological research methodology
13.	Learning objectives for the subject  Getting acquainted with the methodology of non-invasive archaeological prospection and the issues of interpreting the acquired data. The ability to consciously and critically approach the possibilities and limitations of non-invasive prospection based on case studies, as well as their practical use in archaeological research.
14.	Program content:  1. What are non-invasive archaeological prospection methods? Possibilities and limitations of surface research.

	<p>2. Aerial prospection. Low and high altitude aerial photography. Cosmic images. The use of satellite imagery.</p> <p>3. From a point cloud. Aerial laser scanning. Archaeological geophysics. Magnetic method and magnetic susceptibility of the ground.</p> <p>4. Archaeological geophysics. Electrofusion method. Archaeological geophysics. GPR method.</p> <p>5. Archaeological geophysics. Electromagnetic method and others. Use of metal detectors.</p> <p>6 Geochemical prospection. Data integration in spatial information systems.</p> <p>7. Problems of data interpretation.</p>								
	<table border="1"> <thead> <tr> <th data-bbox="256 918 986 1055">Assumed learning outcomes</th><th data-bbox="986 918 1426 1055">Appropriate directional symbols learning outcomes</th></tr> </thead> <tbody> <tr> <td data-bbox="256 1055 986 1339"> <p>Knows the terminology used in archaeology and other disciplines with which archaeology cooperates.</p> </td><td data-bbox="986 1055 1426 1339"> <p>K_W02</p> <p>K_W04</p> </td></tr> <tr> <td data-bbox="256 1339 986 1848"> <p>Has structured, in-depth knowledge of the archaeology of various eras.</p> <p>Has in-depth knowledge of the connections between archaeology and scientific disciplines, which are the basis for various directions developed within them research, such as environmental archaeology (bioarchaeology), architectural archaeology, conservation of archaeological artefacts.</p> </td><td data-bbox="986 1339 1426 1848"> <p>K_W05</p> </td></tr> <tr> <td data-bbox="256 1848 986 2040"> <p>Knows advanced research methods and tools of the archaeologist's workshop.</p> </td><td data-bbox="986 1848 1426 2040"> <p>K_W11</p> </td></tr> </tbody> </table>	Assumed learning outcomes	Appropriate directional symbols learning outcomes	<p>Knows the terminology used in archaeology and other disciplines with which archaeology cooperates.</p>	<p>K_W02</p> <p>K_W04</p>	<p>Has structured, in-depth knowledge of the archaeology of various eras.</p> <p>Has in-depth knowledge of the connections between archaeology and scientific disciplines, which are the basis for various directions developed within them research, such as environmental archaeology (bioarchaeology), architectural archaeology, conservation of archaeological artefacts.</p>	<p>K_W05</p>	<p>Knows advanced research methods and tools of the archaeologist's workshop.</p>	<p>K_W11</p>
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	<p>Has detailed knowledge of collecting, managing and processing archaeological source resources and using digital techniques for these purposes.</p> <p>Is able to critically analyze various types of data, taking into account modern research methods.</p> <p>Has the ability to substantively argue using the views of other authors, the ability to formulate conclusions and present synthetic studies in various forms.</p> <p>Has in-depth skills in preparing oral presentations in Polish, concerning specific issues, using various theoretical approaches and categories of sources.</p> <p>Understands the need for lifelong learning.</p> <p>Demonstrates independence and independence in formulating views, while understanding and respecting the right of other people to the same</p>	<p>K_W15</p> <p>K_U05</p> <p>K_U06</p> <p>K_U10</p> <p>K_K01</p> <p>K_K06</p>
15.	<p>Required and recommended literature (sources, studies, textbooks, etc.)</p> <ol style="list-style-type: none"> <li>1. Renfrew C., Bahn P. 2003. Archeologia. Teoria-metody-praktyka, Warszawa: Prószyński i S-ka.</li> <li>2. Ławecka D. 2003. Wstęp do archeologii, Warszawa: PWN.</li> <li>3. Misiewicz K. 2006. Geofizyka archeologiczna, Warszawa: Instytut Archeologii i Etnologii PAN.</li> <li>4. Kuna M. 2004. Nedestruktivní archeologie, Praha: Academia.</li> <li>5. Rączkowski W. 2002. Archeologia lotnicza. Metoda wobec teorii, Poznań: Wydawnictwo Naukowe UAM.</li> <li>6. Nowakowski J., Prinke A., Rączkowski W. (red.). 2005. Biskupin i co dalej... Zdjęcia lotnicze w polskiej archeologii, Poznań: Ad Rem.</li> <li>7. Banaszek Ł. 2015. Przeszłe krajobrazy w chmurze punktów, Poznań: Wydawnictwo Naukowe UAM.</li> </ol>	
16.	<p>Methods of verifying the assumed learning outcomes:</p> <p>- preparation and implementation of a project (individual or group)</p>	

17.	Conditions and form of passing individual components of the subject/module: - attendance, - activity during classes, - preparation and presentation of a critical study of the possibilities of using the selected non-invasive prospecting method in archaeological research (written work and multimedia presentation)	
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: seminar:	15
	student/doctoral student's own work (including participation in group work), e.g.:	
	- preparation for classes:	15
	- reading the indicated literature:	10
	- preparation of works/speeches/projects:	20
	Total number of hours	60
	Number of ECTS points ( <i>if required</i> )	2

(T) – implemented in a traditional way

(O) – implemented online

\* remove unnecessary