



## COURSE DESCRIPTION CARD

Course name	Natural and anthropogenic changes of the natural environment in the Holocene						
Course type	Optional	Course code	SDPB0	118	ECTS credits	1	
Forms and number of hours	Lecture: 10 h	Scientific discipline	Forestry sciences				
Course objectives	To convey knowledge on changes in the natural environment and landscape in subsequent periods of the Holocene, occurring in the territory of Poland under the influence of natural processes and human activity.						
Course content	<ol> <li>Methods of paleoecological research and reconstruction of changes in the natural environment. Palynological, limnological and archaeological sources. Stratigraphic division of the Holocene and periodization of human history in Poland. Climatic changes and their impact on the formation of the landscape and vegetation after the last glaciation.</li> <li>Settlement processes and development of the cultural landscape in subsequent periods of the Holocene and their ecological consequences.</li> <li>The impact of old forms of industry and use on the landscape and the forests. Fragmentation of the forest landscape and its effects.</li> <li>Changes in the hydrographic network under the influence of natural processes and human activity.</li> <li>The impact of natural and anthropogenic environmental changes on biogeographic processes. Changes in the ranges and share of main forest species and forest types in the Holocene.</li> </ol>						
Teaching methods	The multimedia presentation, information lecture, tasks for self-development						
Assessment method	Passing the lecture						
Symbol of learning outcome	Lear	ning outcomes		learning for the study for level of Quality	outcomes e field of or the 8 <sup>th</sup> of Polish fication nework RK)	Methods of assessing the learning outcomes	
LO1	The PhD student ha anthropogenic fac environment and lan	ctors shaping	t natural and the natural	SD	_W1	Passing the lecture	





LO2	The PhD student knows the methods of research on the dynamics of the natural environment and is able to critically analyze their results.	SD_U2	Passing the lecture			
LO3	The PhD student is able to identify the impact of natural and anthropogenic factors on the natural environment based on scientific research results.		Passing the lecture			
Student workload (in hours)						
Lecture		10/0/0/0/0				
Consultations		5				
The unassisted st	udent work	15				
Implementation of participation in e	of project tasks and preparation for and xams/tests	10				
Total		40				
ECTS credits		1				
Basic references	<ol> <li>Roberts N. The Holocene. An environmental history. Willey Blackwell, 2014.</li> <li>Head L. Cultural Landscapes and Environmental Change. Routledge, 2000.</li> </ol>					
Supplementar y references	<ol> <li>Kopczyński K., Skoczylas J. Krajobraz przyrodniczy i kulturowy: próba ujęcia interdyscyplinarnego. Wyd. UAM, 2008 [In Polish with English summary].</li> <li>Gancarski J. (red.). Zmiany środowiska i warunków klimatycznych w okresie od schyłkowego paleolitu do końca średniowiecza i ich wpływ na warunki życia człowieka w północnej części Europy Środkowej. Krosno, 2021 [In Polish with English summary].</li> <li>Starkel L. (red.). Geografia Polski. Środowisko przyrodnicze. WAM, 1999 [In Polish with English summary].</li> </ol>					
Author of the programme	Prof. Piotr Banaszuk, Dan Wołkowycki, PhD					
Date of issuing the programme	23.12.2024					