University of Gdańsk

Subject card

Subject name and code	Soil Science and Geography - lecture, PG_00193833		
Field of study	Geography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
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	2	Language of instruction	Polish
Semester of study	4	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr Sambor Czerwiński	
	Teachers		

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	20.0	0.0	0.0	0.0	0.0	20
	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	20	1.0	9.0	30

Subject objectives

Familiarization with the main research methods used in geomorphology and soil science.

Understanding the general laws governing the origin and evolution of landforms on the Earths surface.

Learning about the main soil-forming processes and factors, as well as their influence on spatial distribution across the globe.

Understanding the determinants and negative anthropogenic transformations of the pedosphere.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOGRL3-U05] can use scientific language and express opinions and discuss topics related to geography in Polish and a foreign language	The student knows and understands specialist concepts in soil science and soil geography and is able to use scientific language in discussions on geographical issues in both Polish and a foreign language. The student understands soil-forming processes, the factors shaping soil diversity, and the relationships between soil, climate, vegetation, and human activity.	[SU4] test/exam - oral or written
[GEOGRL3-U02] can use theoretical knowledge in the field of geography and available sources of information to correctly interpret basic natural, social, economic, and political processes and phenomena	The student is able to apply theoretical knowledge in soil science and soil geography, as well as available information sources, to correctly interpret fundamental natural, social, and economic processes and phenomena related to the functioning and use of soils.	[SU4] test/exam - oral or written
[GEOGRL3-W02] knows and understands key concepts and theories in geography, as well as advanced processes and phenomena related to spatial diversity and the distribution of processes and phenomena on the Earth's surface at various spatial scales, particularly in Poland	The student knows the key concepts and theories in soil science and soil geography and has advanced understanding of the processes and phenomena related to the spatial differentiation and distribution of soils across the Earth’s surface at different spatial scales, with particular emphasis on Poland.	[SW4] test/exam - oral or written
[GEOGRL3-U01] can dentify and analyze basic natural and socio-economic processes and phenomena, analyze their causes and course, and formulate and discuss basic issues concerning physical-geographical conditions and the social, economic, and political situation and their changes on various spatial scales	The student is able to identify and analyse fundamental soil-forming processes and socio-economic phenomena related to soil use, examine their causes and course, and formulate and discuss key issues concerning soil properties, functioning, and transformations across different spatial scales.	[SU4] test/exam - oral or written
[GEOGRL3-W05] knows the interactions between the natural and anthropogenic environments on various spatial and temporal scales, with particular emphasis on the processes and phenomena occurring in the area of the South Baltic Coast and Lake District and the conditions of these interactions	The student knows and understands the interactions between soils and human activity across different spatial and temporal scales, with particular emphasis on the processes and phenomena characteristic of the South Baltic Coastal and Lakeland regions and the determinants of these interactions.	[SW4] test/exam - oral or written

Subject contents

1. Characteristics of the factors shaping the Earths surface and landforms (fluvial, glacial and periglacial, aeolian processes and landforms, processes and landforms in coastal zones, and lacustrine and peatland deposits and accumulation forms).
2. Human impact on relief and geomorphological processes.
3. Hazards related to extreme geomorphological phenomena.
4. Characteristics of soil-forming processes and factors and their influence on soil development.
5. The most important soil types, subtypes, and groups of the world, their genesis, distribution, structure, and agricultural suitability.
6. Protection of the lithosphere and potential threats to the soil environment.
7. The role of soil microorganisms.
8. Fundamentals of palaeoenvironmental reconstruction.

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="2"></td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Test</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Bednarek R., Prusinkiewicz Z., 1999. Geografia gleb, PWN, Warszawa

Bednarek R., Dziadowiec H., Pokojska U., Prusinkiewicz Z., 2005, Badania ekologiczno- gleboznawcze. PWN, Warszawa

Klimaszewski M., 1994, Geomorfologia, PWN, Warszawa Lindner L. (red.), 1992, Czwartorzęd. Osady. Metody badań.

Stratygrafia, Wyd. PAE, Warszawa Schealtz R., Anderson S., 200</td></tr>
<tr><td>Supplementary literature</td><td>Hiller D., 2012. Gleba w środowisku. Wydawnictwo Naukowe PWN

Brożek S. (red.), 2013. Gleby w środowisku przyrodniczymi krajobrazach Europy. Wydawnictwo Uniwersytetu Rolniczego w Krakowie</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Wymień główne komponenty gleby oraz opisz je Poziomy główne wg Systematyki gleb Polski, 2019 Różnica między glebami mineralnymi i organicznymi Elementarne procesy glebotwórcze</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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