

Course title Geomorphology and science of soil / Geomorfologia i gleboznawstwo		ECTS code 7.2.0488	
Name of unit administrating study Faculty of Chemistry			
Studies			
Field of study	Type	Form	
Environmental protection	Bachelor	Full-time studies	
Teaching staff Dr Dawid Weisbrodt, Dr Radosław Wróblewski			
Forms of classes, the realization and number of hours		ECTS credits	
A. Forms of classes, in accordance with the UG Rector’s regulations Lecture, auditorium classes		classes - 30 h tutorial classes – 2 h student’s own work – 18 h	
B. The realization of activities In-class learning			
C. Number of hours 15 h lecture, 15 h auditorium classes		Total: 50 h - 2 ECTS	
The academic cycle Second year, summer semester			
Type of course Obligatory		Language of instruction Polish	
Teaching methods Lecture with multimedia presentation; individual work, discussion moderated		Form and method of assessment and basic criteria for evaluation or examination requirements	
		A. Final evaluation, in accordance with the UG study regulations	
		B. Assessment methods determining the final grade on the basis of partial grades received during the semester	
		The basic criteria for evaluation or exam requirements Obtaining at least 50% of the points in the test - a credit for the graphical work and the presentation; - active participation in conversation; - obtaining more than 50% of the points from the colloquium.	
Required courses and introductory requirements no prerequisites			
Aims of education To learn the main research methods used in geomorphology and soil science. To understand the general laws of genesis and evolution of relief forms of the Earth's surface. To get acquainted with the main processes and factors of soil formation and their spatial distribution on the globe. Learning about the conditions and negative anthropogenic transformations of the pedosphere.			
Course contents Characteristics of factors shaping the Earth's surface forms (forms and processes: fluvial, glacial and periglacial, aeolian, processes and forms in the sea coastal zone, lake and peat accumulation sediments and forms). Human influence on relief and geomorphological processes. Characteristics of soil-forming processes and factors and their influence on soil formation. Most important types, subtypes and kinds of soils in the world, their genesis, distribution, structure, agricultural usefulness. Protection of the lithosphere, potential threats to the soil environment. Importance of geomorphological and paleopedological studies in reconstruction of natural environment changes. Cartographic information sources in geomorphology and soil science. The concept of soil and its role in the environment.			

Geomorphological conditions of soil cover formation.
Division of soil formations and their organoleptic identification.
The influence of soil use on its agricultural suitability.

Bibliography of literature

Bednarek R., Prusinkiewicz Z., 1999. Geografia gleb, PWN, Warszawa
Bednarek R., Dziadowiec H., Pokojka 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., 2007, Soils, Genesis and Geomorphology, Cambridge University Press
Starkel L (red.). 1999, Geografia Polski – środowisko przyrodnicze, PWN, Warszawa
Trzciński W. (red.) 1989, Systematyka Gleb Polski, Roczniki Gleboznawcze, Tom XL, nr 3-4, PWN Warszawa.

Knowledge

Classifies techniques for protecting soils from degradation;
Recognises relations between geomorphology and soil science with other scientific disciplines;
Defines basic terms in geomorphology and soil science;
The student explains physical and chemical conditions of the most important soil-forming processes;
Characteristics of basic geomorphological processes and factors and their impact on Soil formation;
Characterise the importance of geomorphological and palaeopedological studies in reconstructions of changes in natural environment.

Skills

The student uses geomorphological and soil science terminology to a sufficient degree to be able to the use of the literature on the subject in Polish and/or English.

Social competence

The student demonstrates readiness for individual and social actions, including those aimed at maintaining ecological balance and protecting the Earth's resources.