UNIWERSYTET IM. ADAMA MICKIEWICZA W POZNANIU

Introduction to geohazards

Educational subject description sheet

Basic information

Study programme Geohazards and Climate Change **Speciality** - **Organizational unit** Faculty of Geographical and Geological Sciences **Study level** Second-cycle programme **Study form** Full-time **Education profile** General academic	**Didactic cycle** 2024/25 **Subject code** 07GCCS.21P.03744.24 **Lecture languages** English **Course type** Obligatory **Block** Basic subjects

Subject coordinator	Witold Szczuciński
Lecturer	Witold Szczuciński

Period	**Activities and hours**	**Number of ECTS points**
Semester 1	• Lecture: 30, Exam • Laboratories: 15, Graded credit	4

Goals

Code	Goal
C1	To present the linkage of various Earth System processes with human activity and resulting hazards and risks.
C2	To familiarize with classifications and definitions of various types of geohazards.
C3	To point the fundamental feedback effects and process-based relationships between various natural processes (in particular of extreme magnitude) and human activity.
C4	To present the framework of the Master course in Geohazards and Climate Change.

Entry requirements

Basic knowledge in Earth sciences.

Subject learning outcomes

Code	Outcomes in terms of	Learning outcomes	Examination methods
Knowledge – Student:			
W1	knows classification of geohazards and definition of various types of geohazards;	GCC_K2_W01, GCC_K2_W03, GCC_K2_W04	Written exam
W2	understands the linkage of various Earth System processes with human activity and resulting hazards and risks.	GCC_K2_W01, GCC_K2_W03	Written exam, Test
Skills – Student:			
U1	recognizes fundamental feedback effects and process-based relationships between various natural processes (in particular of extreme magnitude) and human activity.	GCC_K2_U03, GCC_K2_U14	Written exam, Test
Social competences – Student:			
K1	is ready to educate and share the knowledge on geohazards and their mitigation with wide non-academic audience and society.	GCC_K2_K02, GCC_K2_K03	Written exam, Test

Study content

No.	Course content	Subject learning outcomes	Activities
1.	Presentation of the linkages between various Earth System processes and human activity, as well as the resulting hazards and risks.	W2, U1, K1	Lecture, Laboratories
2.	Providing classification and definitions of various types of geohazards.	W1	Lecture
3.	Description of the fundamental feedback effects and process-based relationships between various natural processes (in particular of extreme magnitude) and human activity.	W2, U1, K1	Lecture, Laboratories

Additional information

Activities	Teaching and learning methods and activities
Lecture	Lecture with a multimedia presentation of selected issues, Problem-based lecture, Discussion
Laboratories	Discussion, Case study, Problem-based learning, Game/simulation, Solving tasks (e.g. computational, artistic, practical), Research method (scientific inquiry)

Activities	Credit conditions
Lecture	The final grade is the result obtained from the written exam. Grading scale: 1. very good (5.0) - from 90% of points, 2. good plus (4.5) - from 80% of points, 3. good (4.0) - from 70% of points, 4. sufficient plus (3.5) - from 60% of points, 5. satisfactory (3.0) - from 50% of points, 6. unsatisfactory (2.0) - below 50% of points.
Laboratories	The final grade is the result obtained from the written test. Grading scale: 1. very good (5.0) - from 90% of points, 2. good plus (4.5) - from 80% of points, 3. good (4.0) - from 70% of points, 4. sufficient plus (3.5) - from 60% of points, 5. satisfactory (3.0) - from 50% of points, 6. unsatisfactory (2.0) - below 50% of points.

Literature

Obligatory

1. Edward Keller, Duane DeVecchio, 2019. Natural Hazards. Earth's Processes as Hazards, Disasters, and Catastrophes. Routledge, 5th Edition, 664 p., ISBN 9781138057227.

Optional

1. Bryant, E. (2004). Natural Hazards (2nd ed.). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511811845

Calculation of ECTS points

Activities	Activity hours*
Lecture	30
Laboratories	15
Preparation for the exam	20
Reading the indicated literature	20
Preparation for the assessment	15
Student workload	**Hours** 100
Number of ECTS points	**ECTS** 4

* academic hour = 45 minutes

Efekty uczenia się dla kierunku

Kod	Treść
GCC_K2_K02	The graduate is ready to identify the influence of environmental processes onto the socio-economic processes, and also influence of anthropogenic activities onto the various components of the natural environment in various timescales
GCC_K2_K03	The graduate is ready to communicate, discuss and argue burning issues, hazards and problems associated with the climate, climate and environment changes for wider, non-scientific audience
GCC_K2_U03	The graduate can conclude based on the data and information from various sources and geographical and environmental information
GCC_K2_U14	The graduate can describe in extended degree environmental components and their relationships
GCC_K2_W01	The graduate knows and understands thoroughly, the processes operating in the natural environment, their causes, mechanisms, consequences and associated geohazards
GCC_K2_W03	The graduate knows and understands thoroughly, endogenic processes, anthropogenic influence on endogenic processes and following from them geohazards
GCC_K2_W04	The graduate knows and understands thoroughly, the role of surface and ground water in the natural environment and the anthropogenic influence on their functioning