University of Gdańsk

Subject card

Subject name and code	Glacial geology – a world of ice or a world of water? - discussion classes, PG_00192998		
Field of study	Geology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2028/2029
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	5	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Geomorphological Reconstructions -> Department of Geomorphology and Quaternary Geology -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Karol Tylmann	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

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	15	1.0	9.0	25

Subject objectives

Getting knowledge about mechanisms influencing the dynamics and evolution of past/present glaciers and ice sheets in the context of climate changes taking place in the geological history of the Earth and today.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOLL3_U03] is able to use source information in Polish and English, including archival and electronic databases, in the field of geological issues	Can use source information, in Polish and English, including archival and electronic databases, in the field of glacial processes and climate change.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report
[GEOLL3_W04] knows and understands phenomena and processes occurring in the past and today in the interior of the Earth and on its surface, defines the methods of how to study them	Knows and understands the phenomena and processes occurring in the past and today on the Earth's surface, related to glaciers and ice sheets, defines methods of studying them at an advanced level.	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[GEOLL3_K03] is willing to exercise caution and criticism in receiving information from scientific literature, the Internet and other media related to natural sciences	Be cautious and critical in accepting information from the scientific literature, the Internet and other media relating to glacial processes and climate change.	[SK1] oral statement/conversation/ discussion [SK2] presentation/project/paper/ report
[GEOLL3_W02] knows and understands the terminology appropriate in science and natural sciences	Knows and understands the terminology appropriate for glacial processes and related climatic conditions at an advanced level.	[SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[GEOLL3_U02] has the skill of analytical and synthetic way of reasoning leading to correct inference based on the results obtained or the facts presented	Have the ability to use analytical and synthetic reasoning leading to correct conclusions about the relationship between climate and the evolution of glaciers and ice sheets.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report

Subject contents	Conditions for the formation of glacial ice and the mechanics of its movement.Classification of glaciers and ice sheets.Processes of glacial erosion, transport and accumulation (ice world).Processes of fluvioglacial erosion, transport and accumulation (water world).History of glaciations on Earth.Present climate change and the dynamics of glaciers and ice sheets.	
Prerequisites and co-requisites		
Assessment methods and criteria		

Subject passing criteria	Passing threshold	Percentage of the final grade
Attendance and activity in class	51.0%	30.0%
Oral presentation	51.0%	70.0%

Recommended reading	Basic literature	Benn D.I., Evans D.J.A., 2010. Glaciers and Glaciation. Hodder Arnold Publication, 802 pp. Bennett M.M., Glasser N.F. (Eds.), 2009. Glacial Geology: Ice Sheets and Landforms. Wiley-Blackwell, 379 pp. Knight P.G. (Ed.) 2006. Glacier Science and Environmental Change. Wiley-Blackwell, 544 pp.
	Supplementary literature	Evans D.J.A., 2018. Glaciation: A Very Short Introduction. Oxford University Press, 200 pp. Woodward J., 2014. The Ice Age: A Very Short Introduction. Oxford University Press, 163 pp. McDougall D., 2008. Zamarznięta Ziemia. Historia dawnych i przyszłych epok lodowcowych. Prószyński Media, 213 pp.
	eResources addresses	
Example issues/ example questions/ tasks being completed	Dynamics of glaciers fluctuations in Norway Subglacial deformation World inventory of glaciers	
Work placement	Not applicable	

Document generated electronically. Does not require a seal or signature.