

**Subject card**

<b>Subject name and code</b>	Geology - laboratory classes , PG_00199123						
<b>Field of study</b>	Marine Hydrography						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study Subject group related to practical vocational preparation		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	1	<b>ECTS credits</b>			2.0		
<b>Learning profile</b>	practical	<b>Assessment form</b>			credit		
<b>Conducting unit</b>	Laboratory of Marine Geology -> Department of Chemical Oceanography and Marine Geology -> Faculty of Oceanography and Geography -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	Subject supervisor		dr Agnieszka Marcinowska				
	Teachers						
<b>Lesson types</b>	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	0.0	0.0	30
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		2.0		18.0	50
<b>Subject objectives</b>	Ability to macroscopic identify minerals and rocks.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[HML3-U19] is able to plan and implement independent learning and improvement of his/her professional competences	is able to independently deepen and update knowledge about the manifestations and effects of geological processes	[SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[HML3-W01] knows and understands, at an advanced level, selected facts, phenomena and processes, as well as methods and theories concerning them, explaining the complex relationships between them, constituting basic general knowledge in the field of scientific disciplines forming the theoretical foundations specific to the field of study	knows and understands at an advanced level the relationship between basic geological processes and laws of physics	[SW4] test/exam - oral or written
	[HML3-W02] knows and understands, at an advanced level, selected phenomena and processes occurring in the hydrosphere, atmosphere, lithosphere and biosphere, their interconnections and relations, as well as practical applications of this knowledge in professional activities related to the field of study	knows and understands at an advanced level of the geological processes, their causes and effects	[SW4] test/exam - oral or written
	[HML3-U03] is able to recognise natural (including geological) and anthropogenic objects and link them to the processes leading to their formation	is able to recognize macroscopically and describe basic minerals and rocks based on their own observations and source data	[SU4] test/exam - oral or written [SU6] demonstration of practical skills [SU8] observation of student's independent or team work
	[HML3-U08] is able to independently use the professional literature available in traditional and electronic form, make an assessment, critical analysis and synthesis as well as the correct interpretation of the information obtained	is able to reconstruct and describe of the geological processes leading to the formation of minerals and rocks, using empirical and literature data and correctly using terminology	[SU4] test/exam - oral or written [SU8] observation of student's independent or team work
[HML3-U14] is able to use the applicable terminology in presenting and discussing problems related to the field of study	is able to correctly use of the geological terminology to the mineral and rock description	[SU4] test/exam - oral or written [SU8] observation of student's independent or team work	
Subject contents	Laboratories:  1. Rock-forming minerals and their macroscopic characteristics.  2. Basics of petrography: an overview of magmatic, sedimentary and metamorphic rocks with taking into account their mineral composition and features of internal structure		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	colloquium I	51.0%	50.0%
	colloquium II	51.0%	50.0%

Recommended reading	Basic literature	<p>CZUBLA P., MIZERSKI W., ŚWIERCZEWSKA-GŁADYSZ E.: Przewodnik do ćwiczeń z geologii. Wydawnictwo Naukowe PWN, Warszawa 2005.</p> <p>JAROSZEWSKI W. (red.): Przewodnik do ćwiczeń z geologii dynamicznej. Wyd. geologiczne, Warszawa 1986.</p> <p>KSIĄŻKIEWICZ M.: Geologia dynamiczna. Wyd. geologiczne, Warszawa 1979.</p> <p>MIZERSKI W.: Geologia dynamiczna. Wydawnictwo Naukowe PWN, Warszawa 2010.</p> <p>WITAK M., PRUSZKOWSKA-CACERES M., SZYMCZAK E.: Podstawy geologii. Przewodnik do ćwiczeń. Wyd. UG, 2015</p> <p>PARAFINIUK J.: Atlas minerałów. Wyd.Multico, 2024</p> <p>SZEŁĘG E.: Minerale i skały Polski. Wyd.Multico, 2023</p>
	Supplementary literature	<p>ALLEN P. A.: Procesy kształtujące powierzchnię Ziemi. Wydawnictwo Naukowe PWN, Warszawa 2000.</p> <p>JAROSZEWSKI W. (red.): Słownik geologii dynamicznej. Wyd. geologiczne, Warszawa 1985.</p> <p>SKOCZYLAŚ J.: Budowa Ziemi. Wielka Encyklopedia Geografii Świata. Tom II. Wydawnictwo Kurpisz, Poznań 1996.</p> <p>WITT A., BORÓWKA K. R.: Rzeźba powierzchni Ziemi. Wielka Encyklopedia Geografii Świata. Tom VI. Wydawnictwo Kurpisz, Poznań 1997.</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed	macroscopic identification of minerals and rocks on the basis of learned methods	
Work placement	Not applicable	

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