University of Gdańsk

Subject card

Subject name and code	Micropaleontology - lecture, PG_00091114		
Field of study	Geology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
Education level	Bachelor's studies	Subject group	Obligatory subject group 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	Laboratory of Marine Geology -> Department of Chemical Oceanography and Marine Geology -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Patrycja Jernas	
	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	5.0	20.0	40

Subject objectives

Application of knowledge (stratigraphic range, mode of life, environmental preferences) of common groups of microfossils in stratigraphy and geological paleoenvironmental studies.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOLL3_U06] is able to identify geological objects and combine them with geological processes and anthropogenic environmental transformations	can identify micropaleontological objects by linking them to geological and climatic processes and anthropogenic environmental transformations	[SU4] test/exam - oral or written
[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 in the past and present times in the marine and terrestrial environments, defines the methods of the study on paleontological bioindicators	[SW4] test/exam - oral or written
[GEOLL3_W03] knows and identifies paleontological, mineralogical, petrographic and structural objects using appropriate methods	knows and identifies micropaleontological objects, using appropriate empirical and literature methods	[SW4] test/exam - oral or written
[GEOLL3_W02] knows and understands the terminology appropriate in science and natural sciences	knows and understands the terminology appropriate in the study of the paleoenvironmental research with particular consideration of marine realm	[SW4] test/exam - oral or written

<table>
<tr><td>Subject contents</td><td>Introduction to micropaleontology: main groups of microfossils, methodology and preparation techniques .

Tafonomy and quality of the micropaleontological record.

Overview of the main groups of microfossils.

Biomineralization and use of geochemical indicators of organogenic origin.

Applied micropaleontology: biostratigraphy, paleoenvironmental and paleoclimatic reconstructions, petroleum exploration.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>final test</td><td>51.0%</td><td>100.0%</td></tr>
</table></td></tr>
<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>• Czubla P., Mizerski W., Świerczewska-Gładysz, 2018. Przewodnik do ćwiczeń z geologii. Wydawnictwo Naukowe PWN,
• Lahmann U., Hillmer G., 1991. Bezkręgowce kopalne. Wydawnictwa Geologiczne,
• Franciszek Bieda, 1966: Paleozoologia, tom I, Część ogólna zwierzęta bezkręgowe. Wydawnictwa Geologiczne,
• Pratul Kumar Saraswati, M.S. Srinivasan, 2015. Micropaleontology: Principles and Applications. Publisher: Springer International Publishing,
• Haq B.U., Boersma A., 1998. Introduction to Marine Micropaleontology. Publisher: Elsevier,
• Howard Armstrong, Martin Brasier, 1980, 2013. Microfossils. Publisher: Wiley-Blackwell</td></tr>
<tr><td>Supplementary literature</td><td>• Hillaire-Marcel C.,de Vernal A., 2007. Proxies in late cenozoic paleoceanography. Developments in Marine Geology, Volume 1, Publisher: Elsevier,
• Hammer Ø., Harper D. A.T., 2005. Paleontological Data Analysis. Publisher: Blackwell,
• Scott, D. B., Medioli, F. S., Schafer, C. T, 2001. Monitoring in Coastal Environments Using Foraminifera and Thecamoebian Indicators. Publisher: Cambridge University Press,
• Robert Wynn Jones, 2013. Foraminifera and their Applications. Publisher: Cambridge University Press,</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
</table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>A case study with examples of selected scientific papers.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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