University of Gdańsk

Subject card

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|---|---|---|---|
| Subject name and code | Marine Paleoenvironments and Methods of Investigation - laboratory , PG_00206144 | | |
| Field of study | Oceanography | | |
| 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<br>Optional subject group<br>Subject group related to scientific research in the field of study |
| 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 Marine Geology -> Department of Chemical Oceanography and Marine Geology -> Faculty of Oceanography and Geography -> Rector | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr hab. Małgorzata Witak | |
| | Teachers | | |

**Lesson types**

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

E-learning hours included: 0.0

Additional information:

laboratory exercises

**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 |

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|---|---|
| Subject objectives | Ability to apply stratigraphic methods (biostratigraphic, lithostratigraphic, diastrophic) in determining the age of geological objects and processes. |

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [OCEANL3-U03] is able to process, describe, and present results, and draw conclusions | is able to identify fossils, sedimentary rocks and tectonic structures and, on their basis, to make correct inferences about exogenous processes in the past | [SU4] test/exam - oral or written |
| [OCEANL3-W05] has an advanced knowledge of techniques, research methods, and tools (mathematical, statistical, and computational) used by oceanographers to describe and interpret processes and phenomena occurring in the marine environment | has an advanced knowledge of research techniques, methods and tools and understands the importance of basic research methods for the determination of relative and absolute ages of geological events and is able to interpret them correctly in relation to exogenous processes in the past | [SW4] test/exam - oral or written |
| [OCEANL3-W02] has a broad knowledge and understanding of physical, biological, chemical, and geological processes and phenomena occurring in aquatic environments, with particular emphasis on the marine environment | knows and understands to an advanced level the interrelationship between animate and non-living elements of the aquatic palaeoenvironment, identifies and correctly describes basic geological phenomena and explains their course in relation to past marine processes | [SW4] test/exam - oral or written |
| [OCEANL3-W01] has an advanced knowledge and understanding of the terminology used in oceanography and related exact and natural sciences (in Polish and a selected foreign language) | has an advanced knowledge and understanding of the terminology used in stratigraphy and historical geology | [SW4] test/exam - oral or written |
| [OCEANL3-U12] is able to systematically expand and update oceanographic knowledge and enhance professional qualifications | is able to systematically expand and update his/her knowledge of historical geology and improve professional qualifications | [SU4] test/exam - oral or written |
| [OCEANL3-U01] is able to use the current scientific terminology in the field of oceanography in various forms of expression | is able to use current scientific terminology in a variety of forms of expression in stratigraphy and historical geology | [SU4] test/exam - oral or written |

**Subject contents**

Geochronological, chronostratigraphic, lithostratigraphic and biostratigraphic units. Application of stratigraphic principles and Walther's law. Sedimentary rocks as indicators of marine sedimentary environments

**Prerequisites and co-requisites**

**Assessment methods and criteria**

| Subject passing criteria | Passing threshold | Percentage of the final grade |
|---|---|---|
| Test I | 51.0% | 50.0% |
| Test II | 51.0% | 50.0% |

**Recommended reading**

| | |
|---|---|
| Basic literature | Orłowski S. Szulczewski M. 1990. Geologia historyczna. Cz. I. Wyd. Geol., Warszawa<br>Mizerski W., Orłowski S. 2005. Geologia historyczna dla geografów. Wydawnictwo Naukowe<br>PWN, Warszawa |
| Supplementary literature | Racki G., Narkiewicz M., 2006, Polskie Zasady Stratygrafii, PIG, Warszawa<br><br>Gould S. J. (red.), 1998. Dzieje życia na Ziemi. Świat Książki, Warszawa<br>Schopf W. J., 2002. Kolebka życia: o narodzinach i najstarszych śladach życia na Ziemi, Wydawnictwo Naukowe<br>PWN, Warszawa<br>Stanley S. M., 2002. Historia Ziemi, Wydawnictwo Naukowe PWN, Warszawa<br>van Andel, T.H., 1997. Nowe spojrzenie na starą planetę. Wyd. Naukowe PWN, Warszawa |
| eResources addresses | |

**Example issues/ example questions/ tasks being completed**

1. List the geochronological and chronostratigraphical units of the Palaeozoic

2 Explain the differences between the various unconformities

3. Interpret environmental changes based on the geological profile

**Work placement**

Not applicable

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