University of Gdańsk

Subject card

Subject name and code	Fundamentals of petroleum geology , PG_00193052		
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	6	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of Geophysics -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Robert Sokołowski	
	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

- Familiarity with basic petroleum geology terms
- Knowledge of research methods: field, laboratory and in-camera
- Knowledge of the main developments in petroleum geology
- Use of modern research tools
- Practical application of knowledge

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GEOLL3_W07] knows the anthropogenic transformation of the natural environment, including the effects of the exploitation of mineral resources	is familiar with anthropogenic transformation of the natural environment, taking into account the effects of hydrocarbon exploitation	[SW4] test/exam - oral or written
[GEOLL3_W02] knows and understands the terminology appropriate in science and natural sciences	knows and understands terminology appropriate in petroleum geology	[SW4] 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 oil system, defines the methods of their research	[SW4] test/exam - oral or written
[GEOLL3_W01] knows and understands the basic natural phenomena and explains their course in relation to geological processes	knows and understands basic phenomena and processes in petroleum systems	[SW4] test/exam - oral or written

Subject contents	Introduction: general knowledge of oil and gas History of the development of petroleum geology and hydrocarbon exploration Theories of the origin of oil and gas Conditions of occurrence of oil and gas within the petroleum basin Characteristics of source, reservoir and sealing rocks Migration and accumulation processes of hydrocarbons Hydrocarbon reservoirs, classification of oil and gas reservoirs Oil and gas exploration methods	
Prerequisites and co-requisites		
Assessment methods and criteria	Subject passing criteria: written pass Passing threshold: 51.0% Percentage of the final grade: 100.0%	
Recommended reading	Basic literature	Selley R.C., 1998: Elements of Petroleum Geology. 2nd ed. Academic Press San Diego Zawisza, L., 2009. Geologia naftowa. Wyd. AGH, Kraków Zubrzycki, A., 2007: Podstawy geologii naftowej. Wyd. AGH, Kraków. Bjorlykke K., 2010: Petroleum Geoscience: From Sedimentary Environments to Rock Physics. Springer, str. 508. Hunt J.M., 1996: Petroleum Geochemistry and Geology. 2nd ed. W.H.Freeman and Company, New York.
	Supplementary literature	Levorsen A.I. - Geologia ropy naftowej i gazu ziemnego. Wyd. Geologiczne, Warszawa, 1972, str. 570. Hantschel T., Kauerauf A., 2009: Fundamentals of Basin and Petroleum Systems Modeling. Springer: ss. 1-476.
	eResources addresses	
Example issues/ example questions/ tasks being completed	Major oil basins in Poland Characteristics of hydrocarbon generation and migration Types of reservoir traps	
Work placement	Not applicable	

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