University of Gdańsk

Subject card

Subject name and code	The Basics of Organic Chemistry for Oceanographers - auditory classes, PG_00206140		
Field of study	Oceanography		
Date of commencement of studies	October 2027	Academic year of realisation of subject	2028/2029
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 Toxic Substances Transformation -> Department of Chemical Oceanography and Marine Geology -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Marta Staniszewska, prof. UG	
	Teachers		

Lesson types

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

Acquiring basic skills enabling the connection of the structure and properties of individual groups of organic compounds in the context of physical and chemical processes in the marine environment. Acquiring the ability to identify and correctly name basic groups of organic compounds

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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)	knows and understands specialized terminology related to organic chemistry	[SW4] 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 terminology in the field of organic chemistry	[SU2] presentation/project/paper/ report [SU4] test/exam - oral or written
[OCEANL3-K04] is willing to constantly deepen knowledge in the field of oceanography and improve professional qualifications, supported by the knowledge of experts	is ready to continuously expand knowledge of organic compounds in the context of their behavior in the marine environment	[SK2] presentation/project/paper/ report

<table>
<tr><td>Subject contents</td><td>B.1 Recognizing and naming functional groups in organic compounds. Nomenclature and nomenclature of organic compounds. Summary, structural formula. Homologous series. Structural (constitutional) isomerism and stereoisomerism. B.2Influence of the structure of an organic compound (including functional groups) on its physical and chemical properties. Polar and non-polar organic compounds. B.3 Predicting the behavior of various groups of organic compounds in the marine environment, with various physical and chemical properties, i.e.: molecular weight, acidity-basicity, polarity, lipophilicity, volatility, durability, toxicity.</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>test 2</td><td>51.0%</td><td>25.0%</td></tr>
<tr><td>Presentation</td><td>51.0%</td><td>25.0%</td></tr>
<tr><td>test 1</td><td>51.0%</td><td>25.0%</td></tr>
<tr><td>test 3</td><td>51.0%</td><td>25.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>1. Morrison T.R., Boyd N.R., Organic Chemistry, PWN Warszawa 1994.2. Mastalerz P., Textbook of organic chemistry, Wydawnictwo Chemiczne, Wrocław 1996.3. Kupryszewski G., Introduction to organic chemistry, PWN, 1979, Warsaw</td></tr>
<tr><td>Supplementary literature</td><td>-</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>Ability to name and nomenclature selected organic compounds and recognize and name functional groups in organic compounds.The ability to predict the behavior of various groups of organic compounds in the marine environment, with various physical and chemical properties, such as: molecular weight, acidity-basicity, polarity, lipophilicity, volatility, durability, toxicity, and depending on environmental conditions.Finding answers include: to questions about what influences the durability, solubility in water or bioavailability of organic pollutants.Preparation of a presentation on the circulation of selected organic pollutants in the marine environment.</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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