University of Gdańsk

Subject card

Subject name and code	Radiochemistry of marine environment , PG_00179534		
Field of study	Chemistry, Environmental Protection		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Master's studies	Subject group	Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Faculty of Chemistry -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Dagmara Strumińska-Parulska	
	Teachers	dr Karolina Szymańska	

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

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	5.0	25

Subject objectives

familiarizing students with selected elements of radiochemical analysis

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OŚMU2_U02] Uses advanced measurement and analytical techniques used in environmental protection.	is able to perform radiochemical analysis of seawater samples	[SU8] observation of student's independent or team work
[OŚMU2_K06] Recognises the importance of knowledge in solving encountered cognitive and practical problems and consults experts in the event of difficulties in solving a problem on her/his own.	can assess the most important radioactive threats to the marine environment	[SK8] observation of student's independent or team work
[OŚMU2_W04] Chooses methods, techniques and research tools used in environmental protection.	has knowledge of radiochemical analysis of marine samples	[SW4] test/exam - oral or written

Subject contents

techniques for collecting marine samples for radiochemical analysis, co-precipitation of water samples, mineralization of samples, separation and preparation of polonium and uranium measuring preparations from water samples, activity determination in an alpha spectrometer

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
writing test	51.0%	90.0%
performing laboratory tasks	51.0%	10.0%

Recommended reading

Basic literature	Skwarzec B., Radiochemia środowiska, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk, 2021

	Supplementary literature	Frontasyeva M., Perelygin V., Vater P., Radionuclides and Heavy Metals in Environment, Springer, 2000 Dahlgaard H., Nordic Radioecology: The Transfer of Radionuclides through Nordic Ecosystems to Man, Elsevier, 1994, Magil J., Galy J., Radioaktywność - radionuklidy - promieniowanie, Springer, 2005,
	eResources addresses	
Example issues/ example questions/ tasks being completed	-	
Work placement	Not applicable	

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