University of Gdańsk

Subject card

Subject name and code	Monographic lecture - Environmental radiochemistry and radiological protection, PG_00033229		
Field of study	Chemical Business		
Date of commencement of studies	February 2025	Academic year of realisation of subject	2025/2026
Education level	Master'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	1	Language of instruction	Polish Polish language
Semester of study	2	ECTS credits	3.0
Learning profile	academic	Assessment form	credit
Conducting unit	Faculty of Chemistry -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. Bogdan Skwarzec	
	Teachers		

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	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	30	5.0	40.0	75

Subject objectives	The aim of the course is to familiarize students with the methods of radiochemical analysis

<table>
<tr><td>Learning outcomes</td><td>
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<tr><th>Course outcome</th><th>Subject outcome</th><th>Method of verification</th></tr>
<tr><td>[BCHMU2_W01] Knows and understands complex physicochemical processes and is able to analyse their course in connection with other fields of science.</td><td>knows and understands complex physicochemical processes</td><td>[SW4] test/exam - oral or written
[SW1] oral statement/ conversation/discussion</td></tr>
<tr><td>[BCHMU2_U02] Is able to define her/his interests, develop them within the chosen direction and in connection with the subject of her/ his master's thesis by implementing the process of self-education and planning her/his professional career.</td><td>is able to define his/her interests and develop them within the chosen field of study</td><td>[SU1] oral statement/conversation/ discussion
[SU4] test/exam - oral or written</td></tr>
<tr><td>[BCHMU2_U01] Is able to, on the basis of her/his knowledge, propose a solution to problems in chemistry, taking into account the economic aspect by using advanced measurement techniques.</td><td>can, based on his knowledge, propose solutions to chemistry problems, taking into account the economic aspect</td><td>[SU1] oral statement/conversation/ discussion
[SU4] test/exam - oral or written</td></tr>
<tr><td>[BCHMU2_K04] Is willing to properly assess the acquired knowledge, respect and disseminate it in order to solve specific cognitive and practical issues.</td><td>is ready to properly evaluate the acquired knowledge</td><td>[SK1] oral statement/conversation/ discussion
[SK4] test/exam - oral or written</td></tr>
<tr><td>[BCHMU2_W05] Knows and understands the main trends in the development of chemistry combined with economics as two interpenetrating scientific disciplines.</td><td>knows and understands the main connections between chemistry and economics</td><td>[SW4] test/exam - oral or written
[SW1] oral statement/ conversation/discussion</td></tr>
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<tr><td>Subject contents</td><td>natural and artificial radioactivity radiochemical methods determination of radionuclides in environmental samples</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>knowledge of analytical chemistry and basic radiochemistry</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>written exam</td><td>51.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Bogdan Skwarzec, Environmental radiochemistry, UG Publishing House, 2021</td></tr>
<tr><td>Supplementary literature</td><td>not applicable</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>List the radioanalytical methods for determining radionuclides Describe methods for separating actinides</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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