University of Gdańsk

Subject card

Subject name and code	Radiochemistry and radiation protection, PG_00170310		
Field of study	Chemistry, Environmental Protection		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
Education level	Bachelor's studies	Subject group	Optional subject group
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 Toxicology and Radiation Protection -> Department of Environmental Chemistry and Radiochemistry -> Faculty of Chemistry -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Dagmara Strumińska-Parulska	
	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

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 all the issues mentioned in the exercise program

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OŚL3_U02] Plans, selects appropriate research and measuring equipment and devices, performs physicochemical measurements and experiments; analyses the results and draws conclusions based on them.	knows how to carry out an analysis radiochemistry of environmental samples	[SU3] text preparation/written work [SU8] observation of student's independent or team work
[OŚL3_K05] Identifies the level of her/his knowledge and skills, demonstrates the need to update knowledge about the environment and its protection, demonstrates the need for continuous professional training and personal development.	knows and understands basic concepts related to radiochemistry, radiology and radiotoxicity	[SK1] oral statement/conversation/ discussion [SK3] text preparation/written work [SK8] observation of student's independent or team work
[OŚL3_W11] Discusses measurement systems and analysis techniques used in monitoring the state of the natural environment.	has knowledge of methods radiochemical	[SW1] oral statement/ conversation/discussion [SW3] text preparation/written work
[OŚL3_U01] Performs tasks under supervision and independently in the field of analysis of the natural environment and the functioning of natural and man-made natural systems.	knows how to carry out an analysis radiochemistry of environmental samples	[SU3] text preparation/written work [SU8] observation of student's independent or team work

Subject contents

Collection of environmental samples for radiochemical analysis, mineralization of food samples, separation and separation of polonium and uranium from environmental samples, preparation of measurement preparations, determination of the activity of selected radioisotopes.

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="3"></td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>reports on the exercises performed</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">Skwarzec B., Kabat K., Strumińska-Parulska D., Radiochemical analysis of environmental samples - laboratory guide, 2009

Olszewski G., Strumińska-Parulska D., Guide to laboratory exercises in nuclear chemistry, radiochemistry, and monitoring of radioactive pollution, 2024</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">-</td></tr>
<tr><td>eResources addresses</td><td colspan="2"></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3">-</td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
</table>

Document generated electronically. Does not require a seal or signature.