University of Gdańsk

Subject card

Subject name and code	General chemistry, PG_00154226		
Field of study	Medical Biology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2024/2025
Education level	undergraduate 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	1	Language of instruction	Polish
Semester of study	1	ECTS credits	3.0
Learning profile	academic	Assessment form	
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. Jolanta Kumirska	
	Teachers	dr Bożena Karawajczyk dr Aleksandra Zahorska mgr Aleksandra Ciesielska	

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	30.0	0.0	0.0	30

E-learning hours included: 0.0

Additional information:
Performing chemical experiments, teaching using the "hands-on" method (learning through experiment).

Participation in classes is obligatory, in case of absence an excuse must be provided (delivered within a week of the reason for the absence being resolved). The required material (theoretical and practical parts) must be completed in the form specified by the instructor.

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	6.0	39.0	75

Subject objectives

Laboratory exercises: Experimental knowledge of selected properties of matter and the operation of the laws of chemistry. Developing the ability to plan, implement and draw conclusions from a scientific experiment. Acquiring the ability to use basic laboratory techniques and safe work with hazardous substances.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMEDL3_U01] uses basic apparatus and research tools and, maintaining the correct sequence of operations, performs simple physical, biological or chemical observations and measurements in laboratory work in the biological or medical sciences	Student plans, performs and carries out research experiments, organizes and analyzes the experimental results, draws correct conclusions based on them, presents the experimental results in writing. Student draws and uses laboratory equipment in accordance with its intended purpose. Student conducts calculations using the known chemical laws.	[SU2] presentation/project/paper/ report [SU3] text preparation/written work [SU8] observation of student's independent or team work
	[BIOLMEDL3_U15] learns independently, in a focused manner	Student solves tasks and problems in the field of applying the laws of chemistry in biological and medical sciences, independently using various sources of information.	[SU2] presentation/project/paper/ report [SU3] text preparation/written work
	[BIOLMEDL3_W09] identifies the tools of mathematics necessary to understand the laws of nature and to describe the processes of life	Student defines the most important chemical laws and concepts governing phenomena occurring in nature. It indicates the relationship between the structure of the atom and the properties of the element and its position in the periodic table. Student lists the most important types of chemical bonds. Student describes the structure of gases, liquids and solids in terms of the kinetic-molecular model of matter. Student defines molar and percentage concentration. Student describes the most important aspects of energy, kinetics and reaction equilibrium. Student describes the acid-base properties of aqueous solutions using the concept of pH. Student explains the basic concepts of oxidation-reduction reactions and electrochemical phenomena.	[SW2] presentation/project/paper/ report [SW3] text preparation/written work
	[BIOLMEDL3_K05] jest odpowiedzialny za bezpieczeństwo pracy własnej i innych oraz potrafi rozpoznać sytuacje zagrożenia i podjąć odpowiednie działania	Student follows the rules of safe conduct in a chemical laboratory in such a way as not to pose a threat to one's own health, the health of others and the environment.Student uses the information contained in the Material Safety Data Sheets.	[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work
	[BIOLMEDL3_W18] knows the basic principles of occupational health and safety and ergonomics	Student lists the principles of safe handling of hazardous substances. Student lists the most important elements of laboratory equipment and describes their applications for specific activities.	[SW2] presentation/project/paper/ report [SW3] text preparation/written work
	[BIOLMEDL3_K07] Is responsible for the equipment/materials entrusted to him and his own work and respects the work of others	Student demonstrates responsibility for the entrusted equipment and reagents, ensures cleanliness and order at the workplace. Student takes tests and colloquiums and submits reports within the prescribed deadlines.	[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work
	[BIOLMEDL3_K01] understands the need for lifelong learning and to update his/her knowledge of medical biology and related disciplines	Student understands the importance of chemical sciences for the development of biological and chemical sciences, understands the need to improve their knowledge and skills in this area.	[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work
	[BIOLMEDL3_W15] describes the principles of evaluating processes and phenomena occurring in a living organism, using physical or chemical measurements	Student describes the basic methods of testing the properties of chemical substances	[SW2] presentation/project/paper/ report [SW3] text preparation/written work
Subject contents	Laboratory exercises: Laboratory tasks related to the topic of the lecture.		
Prerequisites and co-requisites	lack		

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	positive grades in all entrance written tests	51.0%	80.0%
	completing all exercises provided for in the study program	100.0%	0.0%
	developing and presenting the results in writing and obtaining partial passes for all experimental tasks	51.0%	20.0%
Recommended reading	Basic literature	1. Jones L., Atkins P. 2020. Chemia ogólna. PWN, Warsow. 2. Lee J. D. 1994. Zwięzła chemia nieorganiczna. PWN, Warsow. 3. Pauling L., Pauling P. 1997. Chemia. PWN, Warsow.	
	Supplementary literature	1. Bielański A. 2012. Podstawy chemii nieorganicznej. Tom 1, 2. PWN, Warsow	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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