

1.	Field of study	Biophysics
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2022/2023 (winter term), 2023/2024 (winter term), 2024/2025 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time

Module: Drug Chemistry and Technology of Drug Forms

Module code: W4-2BF-MB-21-26

1. Number of the ECTS credits: 3

2. Learning outcomes of the module			
code	description	learning outcomes of the programme	level of competence (scale 1-5)
MB_26_1	Student learned the methods of obtaining biologically active substances	KBF_K04	4
		KBF_U04	4
		KBF_U07	4
		KBF_U09	4
		KBF_W01	4
		KBF_W04	4
		KBF_W05	4
		KBF_W09	4
MB_26_2	Student knows the basics of drug synthesis technology	KBF_K04	4
		KBF_U04	4
		KBF_W02	4
MB_26_3	Student learned the techniques of molecular design of drug-like compounds	KBF_K02	3
		KBF_U04	3
		KBF_U07	3
		KBF_U09	3
		KBF_W01	3
		KBF_W04	3
		KBF_W05	3

		KBF_W09	3
MB_26_4	Student plans and carries out syntheses of selected organic compounds using laboratory equipment, in accordance with applicable health and safety regulations and the principles of safe waste disposal	KBF_K09 KBF_W01 KBF_W04 KBF_W05 KBF_W09	3 3 3 3 3
MB_26_5	Student knows the classification of drugs and their effects on living organisms	KBF_K06 KBF_U04 KBF_U07 KBF_U09 KBF_W01 KBF_W04 KBF_W05 KBF_W09	3 3 3 3 3 3 3 3
MB_26_6	Student is able to apply selected spectroscopic methods and interpret a wide range of simple molecular methods in order to apply their chemical structure	KBF_K02 KBF_U04 KBF_U07 KBF_U09 KBF_W01 KBF_W04 KBF_W05 KBF_W09	4 4 4 4 4 4 4 4

3. Module description	
Description	During the course, students in practice become familiar with: 1. Molecular modeling of therapeutic compounds. 2. Preparation of selected therapeutic compounds. 3. Characterization of new drugs by NMR, MS, XRD methods. 4. In vitro biological activity studies.
Prerequisites	

4. Assessment of the learning outcomes of the module			
code	type	description	learning outcomes of the module
MB_26_w_1	credit	average of marks for self-made projects + report	MB_26_1, MB_26_2, MB_26_3, MB_26_4, MB_26_5, MB_26_6

5. Forms of teaching						
code	form of teaching			required hours of student's own work		assessment of the learning outcomes of the module
	type	description (including teaching methods)	number of hours	description	number of hours	
MB_26_fs_1	laboratory classes	Self-performance of exercises on professional research equipment	45	Theoretical preparation in the scope of exercise. Preparation of a report on the given exercise	45	MB_26_w_1