

DOCTORAL SCHOOL AT THE MEDICAL UNIVERSITY OF BIALYSTOK

International path in the discipline of pharmaceutical sciences, medical sciences and health sciences

**DOCTORAL SCHOOL'S PLAN – academic year 2026/2030 – according to the educational cycle
2026-2030**

No.	Module/subject name	Hours of classes			ECTS points	Form of crediting classes	
		Year 1					
		Total	including:				
Lectures	Seminars		Practical Classes				
1.	Health and Safety principles in scientific and didactic work	4	2	-	2	-	Credit
	<i>University Health and Safety Inspector (Hygiene, Epidemiology and Ergonomics Department)</i>		2	-	-		
	<i>University unit in which the doctoral student conducts scientific research</i>		-	-	1		
	<i>University unit in which the doctoral student conducts didactic research</i>		-	-	1		
2.	Biostatistics in scientific research – basic statistical methods <i>Biostatistics and Medical Computer Science Department</i>	20	6	-	14	2	Exam
3.	Specialist English - developing academic language skills <i>Department of Foreign Languages</i>	30	-	-	30	2	Credit
4.	Bioethics and law in biomedical research	10	-	10	-	1	Credit
	<i>Department of Psychology and Philosophy</i>		-	2	-		
	<i>Department of Medicinal Chemistry</i>		-	4	-		
	<i>Department of Experimental Physiology and Pathophysiology</i>		-	4	-		
5.	Basics of entrepreneurship	12	-	12	-	1	Credit
	<i>Department of Medicinal Chemistry</i>		-	3	-		
	<i>University Units designated by the Director of the Doctoral School</i>		-	9	-		
6.	Methods of obtaining grants <i>University Units designated by the Director of the Doctoral School</i>	4	-	4	-	1	Credit
7.	Progress in scientific research methodology I (2 topics to be selected - 10 h)	10	-	-	10	2*	Credit
	Research methods in assessing biological activity of new compounds (in vitro research) <i>Department of Medicinal Chemistry</i>	5	-	-	5		
	Methods of molecular imaging in diagnostics and therapy <i>Department of Medicinal Chemistry</i>	5	-	-	5		
	Preventive method <i>Population Medicine and Lifestyle Diseases Prevention</i>	5	-	-	5		
	Population studies - methodology, interpretation <i>Population Medicine and Lifestyle Diseases Prevention</i>	5	-	-	5		
	Application of qualitative methods in health sciences <i>Department of Developmental Age Medicine and Paediatric Nursing</i>	5	-	-	5		
	Methods of collecting and analysing data in epidemiological research for the purposes of reparative medicine <i>Department of Hygiene, Epidemiology and Ergonomics</i>	5	-	-	5		
	Methods of collecting and analysing data in epidemiological research for the purposes of health promotion and disease prevention <i>Department of Hygiene, Epidemiology and Ergonomics</i>	5	-	-	5		
8.	Facultative classes I (2 to be selected - 20 hours) – Principles of elaborating and preparing presentations of scientific study results (10 hours)	20	-	20	-	2**	Credit

	<i>Toxicology Department</i> – From manuscript to published work (10 h) <i>Toxicology Department</i> – Principles and methods of assessing safety of chemical substances, drugs and medical products (10 h) <i>Toxicology Department</i> – Thinking in a business mode - Canvas business model (10 h) <i>University Units designated by the Doctoral School Head</i> – Interdisciplinarity of sleep medicine (10h) <i>Department of Otolaryngology</i>						
9.	Methods of statistical planning and analysing scientific research <i>Department of Biostatistics and Medical Informatics</i>	20	10	-	10	2	Exam
10.	Doctoral seminar I Presentation of individual research plan <i>Director of the Doctoral School</i>	11	-	11	-	1	Credit
11.	Conduct of didactic classes <i>Designated MUB unit</i>	60	-	-	60	2	Credit
12.	Doctoral LAB I (Realization of individual research plan of the doctoral student) <i>Designated MUB unit</i>	600	-	-	600	-	Credit
	Total	141 + 60 + 600	18	57	66 + 60 + 600	16	2 exa ms

* ECTS points in the volume of 2 will be granted after realizing 10 h of selected classes under the module “Progress in methodology of scientific research I”

** ECTS points in the volume of 2 will be granted after realizing 20 h of classes under the module “Facultative classes I”

Plan approved on 17.12.2025 by the Programme Committee of the Doctoral School at the MUB in accordance with the Resolution no. 21/2020 of the Senate of the Medical University of Bialystok from 16.01.2020

DOCTORAL SCHOOL AT THE MEDICAL UNIVERSITY OF BIALYSTOK
In the discipline of pharmaceutical sciences, medical sciences and health sciences

DOCTORAL SCHOOL'S PLAN – academic year 2027/2028 – according to the educational cycle 2026-2030

No.	Module/subject name	Hours of classes				ECTS points	Form of Crediting
		Year II					
		Total	including:				
Lectures	Seminars		Practical Classes				
1.	Specialist English - developing academic language skills <i>Department of Foreign Languages</i>	30	-	-	30	2	Exam
2.	Biostatistics in scientific research - advanced statistical methods <i>Department of Biostatistics and Medical Informatics</i>	20	8	-	12	2	Exam
3.	Progress in scientific research methodology II (1- 2 topics to be selected - 10 h)	10	-	-	10	2*	
	Modern analytical techniques in biomedical research and pharmaceutical research <i>Department of Inorganic and Analytical Chemistry</i>	10	-	-	10		Credit
	Advanced analytical techniques in omics research <i>Department of Inorganic and Analytical Chemistry</i>	10	-	-	10		Credit
	Histomorphological techniques in assessing the functionality of cells in physiology and pathological states <i>Department of Histology and Cytophysiology</i>	5	-	-	5		Credit
	Modern design methods and drug synthesis <i>Department of Synthesis and Technology of Drugs</i>	5	-	-	5		Credit
	Proteomics techniques in diagnostics of nervous system diseases <i>Department of Neurodegeneration Diagnostics</i>	5	-	-	5		Credit
	Personalized medicine <i>Population Medicine and Lifestyle Diseases Prevention</i>	5	-	-	5		
	Planning and interpreting descriptive epidemiology research - cross-sectional studies, correlation studies, studies of trends and inequalities <i>Department of Hygiene, Epidemiology and Ergonomics</i>	5	-	-	5		Credit
	Planning and interpreting analytical epidemiology studies - cohort studies <i>Department of Hygiene, Epidemiology and Ergonomics</i>	5	-	-	5		Credit
Planning and interpreting analytical epidemiology studies - clinical-control studies <i>Department of Hygiene, Epidemiology and Ergonomics</i>	5	-	-	5	Credit		
4.	Foreign expert lecture <i>Department of Neurodegeneration Diagnostics</i>	4	4	-	-	1	Credit
5.	Interdisciplinary summer school in the scope of civilization diseases <i>Director of the Doctoral School</i>	10	-	10	-	1	Credit
6.	Law in medicine <i>Department of Medical Law and Medical Deontology</i>	5	5	-	-	1	Credit
7.	Interdisciplinary lecture <i>Director of the Doctoral School/invited expert</i>	5	5	-	-	1	Credit

8.	Didactic faculty (2 topics to be selected - 10 hours): – Interpersonal and environmental communication (5h) <i>Department of Psychology and Philosophy</i> – Methodology and assessment of learning results (5h) <i>Department of Psychology and Philosophy</i> – Didactics directed at educational success of students (5 h) <i>Department of Psychology and Philosophy</i> – Psychopedagogy (5h) <i>Department of Psychology and Philosophy</i> – Psychopedagogical diagnostics (5h) <i>Department of Psychology and Philosophy</i> – Design thinking in theory and experimental practice (5h) <i>Department of Bromatology</i> – Education focused on the students, the so-called Student Cantered Learning (5h) <i>Department of Bromatology</i> – Professionalism in medicine (5h) <i>Department of Psychology and Philosophy</i>	10	-	10	-	1**	Credit
9.	Doctoral seminar II Presentation of individual research plan realization <i>Director of the Doctoral School</i>	10	-	10	-	1	Credit
10.	Conduct of didactic classes. <i>Designated MUB unit</i>	60	-	-	60	2	Credit
11.	Doctoral LAB II (Realization of individual research plan of the doctoral student) <i>Designated MUB unit</i>	800	-	-	800	-	Credit
	Total	104 + 60 + 800	22	30	52 + 60 + 800	14	2 exams

* ECTS points in the volume of 2 will be granted after realizing 10 h of selected classes under the module “Progress in methodology of scientific research II”

** ECTS points in the volume of 1 will be granted after realizing 10 h of classes under the module “Didactic Faculty”

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No.	Module/subject name	Hours of classes				ECTS points	Form of credits
		Year III					
		Total	including:				
Lectures	Seminars		Practical Classes				
1.	Progress in scientific research methodology III (3- 4 topics to be selected - 20 h)	20	-	-	20	3*	
	Metabolomics in identifying biomarkers of diseases and pharmacotherapy grip points <i>Department of Pharmaceutical and Biopharmaceutical Analysis</i>	10	-	-	10		Credit
	Application of in-vivo confocal microscopy in biomedical research and in pursuit of new drugs <i>Department of Biopharmacy and Radiopharmacy</i>	5	-	-	5		Credit
	Application of immunoblotting techniques in biomedical-pharmaceutical tests <i>Department of Immunology</i>	5	-	-	5		Credit
	Receptor tests in isolated organs <i>Department of Experimental Physiology and Pathophysiology</i>	5	-	-	5		Credit
	Flow cytometry - possibilities of application in biomedical and pharmaceutical research <i>Department of Pharmaceutical Biochemistry</i>	5	-	-	5		Credit
	Application of the method of isoelectrofocusing in diagnosing neurodegenerative diseases <i>Department of Neurodegeneration Diagnostics</i>	5	-	-	5		Credit
	Clinical and experimental epidemiology <i>Department of Hygiene, Epidemiology and Ergonomics</i>	5	-	-	5		Credit
	Construing an epidemiological research protocol <i>Department of Hygiene, Epidemiology and Ergonomics</i>	5	-	-	5		Credit
	Metanalysis <i>Department of Hygiene, Epidemiology and Ergonomics</i>	5	-	-	5		Credit
2.	Foreign expert lecture <i>Department of Neurodegeneration Diagnostics</i>	4	4	-	-	1	Credit
3.	Facultative classes II (1 or 2 topics to be selected - 10 hours) – Civilization diseases as an interdisciplinary issue (5 hours) <i>Department of Medicinal Chemistry</i> – Immunology aspects of biomedical-pharmaceutical research (5h) <i>Department of Immunology</i> – Progress in molecular biology (5h) <i>Department of Medical Chemistry</i> – Biotechnological methods in biomedical-pharmaceutical research (5h) <i>Department of Biotechnology</i> – Pharmacotherapy of cancer diseases (5h) <i>Department of Medicinal Chemistry</i>	10	-	10	-	2**	Credit

	<ul style="list-style-type: none"> – Pre-clinical tests of new compounds with potential importance for pathophysiology of the circulatory system (5h) <i>Department of Experimental Physiology and Pathophysiology</i> – Interactions of medications with food (5h) <i>Department of Nutritional Science</i> – Metabolomics (5h) <i>Clinical Research Centre</i> – Planning, realizing and assessing the effects of programmes concerning population health (10h) <i>Department of Hygiene, Epidemiology and Ergonomics</i> – How to achieve scientific success in an international area (5h) <i>Department of Psychology and Philosophy</i> 						
4.	Doctoral seminar III Methodology of tests conducted under realization of individual research plans <i>Director of the Doctoral School</i>	15	-	15	-	1	Credit
5.	Conduct of didactic classes. <i>Designated MUB unit</i>	60	-	-	60	2	Credit
6.	Doctoral LAB III (Realization of individual research plan of the doctoral student) <i>Designated MUB unit</i>	800	-	-	800	-	Credit
	Total	49 + 60 + 800	4	25	20 + 60 + 800	9	-

* ECTS points in the volume of 3 will be granted after realizing 20 h of selected classes under the module “Progress in methodology of scientific research III”

** ECTS points in the volume of 2 will be granted after realizing 10 h of classes under the module “Facultative classes II”

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No.	Module/subject name	Hours of classes				ECTS points	Form of crediting
		Year 4					
		Total	including:				
Lectures	Seminars		Classes				
1.	Doctoral seminar IV Presentation of doctoral dissertation outcomes <i>Director of the Doctoral School</i>	10	-	10	-	1	Credit
2.	Conduct of didactic classes. <i>Designated MUB unit</i>	60	-	-	60	2	Credit
3.	Doctoral LAB IV (Realization of individual research plan of the doctoral student) <i>Designated MUB unit</i>	350	-	-	350	-	Credit
	Total	10 + 60 + 350	-	10	60 + 350	3	-

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