

**The curriculum of the Doctoral School of
Wrocław Medical University
(studies in English)**

effective from the academic year 2021/2022

1. General characteristics of the curriculum

§ 1

1. The Doctoral School of Wrocław Medical University is an organised form of education in the field of medical sciences and health sciences, in disciplines of science: medical sciences, pharmaceutical sciences, health sciences.
2. Education at the Doctoral School:
 - 1) prepares for earning the academic degree of Doctor;
 - 2) takes place as a full-time course;
 - 3) is conducted in English,
 - 4) is 8 semesters long, ending with the submission of a doctoral dissertation;
 - 5) is carried out based on a curriculum and an individual research plan.

§ 2

1. The curriculum at the Doctoral School is consistent with the mission of Wrocław Medical University and has been developed on the basis of its main ideas: discovering and conveying the truth through scientific research carried out at the highest level in the field of broadly understood life sciences, educating medical staff using modern teaching methods as well as cooperating and participating in the development of the health care system in the region and in the country.

§ 3

1. The curriculum of the Doctoral School of Wrocław Medical University prepares a doctoral student for:
 - 1) earning the academic degree of Doctor;
 - 2) research and development as well as didactic work;
 - 3) independent planning of one's own scientific development (including the acquisition of funds for research);
 - 4) participating in the exchange of scientific experience and ideas, including an international community.
2. A doctoral student of the Doctoral School conducts scientific research on their own, which results in:
 - 1) scientific publications;
 - 2) participation in research projects;
 - 3) preparing one's own grant applications;
 - 4) participation in scientific conferences;
 - 5) doctoral thesis prepared with the help of thesis supervisor.

2. Learning outcomes

§ 4

1. Following the curriculum at the Doctoral School results in the achievement of learning outcomes for the qualification at Polish Qualifications Framework level eight, defines on the basis of the Act of 22 December 2015 on the Integrated Qualification System Dz. U. /Journal of Laws/ of 2018, item 2153 as amended) and the provisions issued pursuant to Art. 7 sec. 3 of the aforementioned Act.
2. The learning outcomes relate to the following disciplines of science: medical sciences, pharmaceutical sciences, health sciences.
3. Description of the assumed learning outcomes:

Descriptor categories – critical aspects	Descriptor code	Characteristics of second level learning outcomes for the qualification at Polish Qualifications Framework level eight
KNOWLEDGE (Graduate knows and understands):		
Scope and depth / completeness of cognitive perspective and relation	P8S_WG	<ul style="list-style-type: none"> • allowing for revision of existing paradigms - global achievements, including the theoretical basis and general and selected specific problems – corresponding to the disciplines of science or art • main trends in the development of disciplines of science or art being a subject of study • methodology of scientific research • principles for dissemination of scientific results, including open access
Context / conditions, results	P8S_WK	<ul style="list-style-type: none"> • fundamental dilemmas of modern civilization • economic, legal and other relevant conditions for scientific activity • basic principles of knowledge transfer into social and economic fields as well as commercialisation of scientific results and know-how related to these results
SKILLS (Graduate is able to):		
utilise knowledge / solved problems and tasks	P8S_UW	<ul style="list-style-type: none"> • utilise knowledge from different fields of science or art to creatively identify, formulate and innovatively solve complex problems or perform research tasks, in particular: <ul style="list-style-type: none"> ✓ define the aim and subject of scientific research, formulate a research hypothesis, develop research methods, techniques and tools and apply them creatively, and conclude on the basis of scientific research results, • critically analyse and assess the results of scientific research, expertise and other creative activities and contribution to knowledge development • transfer the results of scientific activity into economic and social fields

Communication / reception and forming expressions, disseminating knowledge in the scientific community and speaking foreign language	P8S_UK	<ul style="list-style-type: none"> • communicate on specialised topics enabling active participation in the international scientific community • disseminating results of scientific activities, including popular forms • initiating debates • participate in the scientific discourse • speak a foreign language at CEFR B2 level enabling participation in the international scientific and professional community
Organisation of work /planning and teamwork	P8S_UO	<ul style="list-style-type: none"> • plan and carry out individual and team research or creative projects, including the international community
Learning / planning of one's own development and development of other people	P8S_UU	<ul style="list-style-type: none"> • Individually plan and act concerning one's own development and inspire and organise the development of other people • plan classes or groups of classes and carry them out using modern methods and tools
SOCIAL COMPETENCES (Graduate is willing to):		
Evaluation / critical approach	P8S_KK	<ul style="list-style-type: none"> • critically evaluate achievements within a given discipline of science or art • critically evaluate one's own contribution to the development of a given discipline of science • recognise the importance of knowledge in solving cognitive and practical problems
Responsibility / fulfilling social obligations and acting in the public interest	P8S_KO	<ul style="list-style-type: none"> • fulfil social obligations of researchers and creators • initiate actions for the public interest • think and act in an entrepreneurial way
Professional role / independence and developing ethos	P8S_KR	<ul style="list-style-type: none"> • maintain and develop the ethos of scientific and creative communities, including: conducting scientific activity independently, respecting the principle of public ownership of the results of scientific activity, taking into account the intellectual property rights

§ 5

1. After completing each course provided for in the curriculum, the learning outcomes achieved by doctoral students are verified during an examination, graded credit or credit. The form of verification of learning outcomes within a given course is determined by the plan of achieving learning outcomes.
2. Examinations and credits may be written or oral. The credit for the classes may be based on a written class assignment, a project or a presentation.
3. The learning outcomes achieved by a doctoral student are also verified by evaluating the completion of an individual research plan (mid-term evaluation).

General conditions for following the curriculum

§ 6

1. A doctoral student undergoes 60 hours internship per academic year, as an academic teacher or participating in teaching, including 10 hours on the first year and 50 teaching hours in the further course of study.
2. A detailed internship plan is developed by the unit applicable for a doctoral student. The plan must not interfere with the current classes schedule relevant for a doctoral student in an academic year.

§ 7

1. The list of elective classes is published annually in the classes schedule for an academic year. A doctoral student is obliged to choose elective classes according to the schedule.
2. Students cannot choose an elective class which they already took in previous academic years.
3. Participation in selected elective class is obligatory and credit for taking them can be received according to the rules set out in the regulations of a given elective class, given that the attendance cannot be the only criterion of receiving credit.

§ 8

1. The condition for completing year of studies at the Doctoral School is:
 - 1) first year:
 - a) taking classes included in the schedule in an academic year,
 - b) completion of an internship as an academic teacher,
 - c) submission of an individual research plan within the deadline specified in the Regulations of the Doctoral School,
 - d) submission of an annual report of a doctoral student,
 - 2) second year:
 - a) taking classes included in the schedule in an academic year,
 - b) completion of an internship as an academic teacher,
 - c) carrying out a research project in accordance with the schedule included in the individual research plan,
 - d) receiving credit for the mid-term evaluation,
 - 3) third year:
 - a) taking classes included in the schedule in an academic year,
 - b) completion of an internship as an academic teacher,
 - c) carrying out a research project in accordance with the schedule included in the individual research plan,
 - d) submission of an annual report of the doctorate student;
 - 4) fourth year:
 - a) taking classes included in the schedule in an academic year,
 - b) completion of an internship as an academic teacher,
 - c) carrying out a research project in accordance with the schedule included in the individual research plan,
 - d) submission of an annual report of the doctorate student,
 - e) submission of a doctoral dissertation.

A doctoral student is obliged to prepare and submit to the Doctoral School Director annual reports on their scientific work, exams and obtained credits, as well as didactic work including feedback from a thesis supervisor on the progress of scientific work and preparation of doctoral thesis, as well as on didactic work. The annual reports shall be submitted for each academic year except for the second year during which the mid-term evaluation takes place. The report printout is generated in the University's IT system.

4. Plan for following the curriculum

Art. 10

1. The plan for following the curriculum at the Doctoral School of the Medical Wroclaw Medical University includes mandatory and elective classes , seminars, e-learning courses and internship as an academic teacher not exceeding 60 teaching hours per year.
2. The education at the doctoral school may be shortened by the consent of the Director, who shall establish an individual course of study for a doctoral student.
3. An individual course of study consists of setting separate dates for the completion of the planned curriculum.
4. Plan for achieving learning outcomes as shown in Appendix No. 1.
5. The matrix of learning outcomes according to the courses as shown in Appendix No. 2.
6. Education at the request of a doctoral student is suspended for a period corresponding to the duration of maternity, paternity or parental leave.
7. After the period of suspension of education at the doctoral school, a doctoral student shall continue to follow curriculum of the doctoral school according to the rules established by its Director.
8. If a doctoral student does not take up education within 14 days after expiry of a suspension period, they shall be removed from the list of doctoral students.

Plan for achieving learning outcomes at the Doctoral School of the Wrocław Medical University

Syllabus: 2021/22 to 2024/25

1. MANDATORY CURRICULAR CLASSES

MODULE:

FIRST YEAR

2021/2022

Course	Semester	Hours Total	Form of classes			Form of crediting a course	Learning outcomes: P8S_
			L	S	C		
Teaching methods in an institution of higher education	1-2	50	-	-	50	credit with a grade	UU ++++++ WG +++++; KO +++; WK ++
Methodology of scientific research	1-2	20	-	20	-	credit with a grade	WG+++++++; UW++++++; UK, KO +++; KK, KR ++; UO,UU +
English classes	1-2	40	-	-	40	credit with a grade	WG,WK,UW,UK,UO, UU,KK,KO,KR +
Evidence Based Medicine principles	1	5	-	5	-	credit with a grade	WG,UW,KK,KR +
Information and library science	1	10	-	10	-	credit with a grade	WG+++++; UW++++; WK +++; KR ++; UO,UK, UU, KK +
Stylistics of scientific expression and communication in science	2	5	-	5	-	credit with a grade	WG ++++++; UK +++++; WK, UW, UU, UO +++; KK, KO, KR +
From the source to the bibliography	2	10	-	10	-	credit with a grade	UW +++++; WG, UK +++; WK ++; KR +
Law and ethics in research	2	8	8	-	-	exam	WG +++; WK ++; UO, UW,KK, KR +
Protection of intellectual property (in English)	2	8	8	-	-	exam	WG +++; WK, UW ++; UO, KO, KR +
Total		156	16	50	90		
Professional internship		Hours Total	Form of crediting a course			Learning outcomes: P8S_	
Classes with students – teaching and co-teaching	1-2	60	Credit			UU +++ WG,UW, UK, UO,KK, KO, KR +	

Additional requirements, in accordance with Higher Education Act and the Doctoral School Regulations:

- Appointment of a thesis supervisor - within 3 months from the date of starting studying.
- Submission of an individual research plan - within 12 months from the date of starting studying.

SECOND YEAR 2022/2023

Course	Semester	Hours Total	Form of classes			Form of crediting a course	Learning outcomes: P8S_
			L	S	C		
Individual scientific reports including progress achieved	3	2	-	-	2	credit with a grade	WG, UW, UK,UO, UU,KO +
Methodology of scientific research	3	10	-	10	-	credit with a grade	WG+++++++; UW++++++; UK, KO +++; KK, KR ++; UO,UU +
Biostatistics	3	20	-	-	20	exam	UW +++; KO ++; WG,WK,UK +
Stylistics of scientific expression and communication in science	3-4	10	-	10	-	credit with a grade	WG ++++++; UK +++++; WK, UW, UU, UO +++; KK, KO, KR +
Interpersonal communication	4	10	-	-	10	Credit	UK +++++; WK +++++; WG, KO ++,
Elective classes *	4	10	-	10	-	Credit	Learning outcomes of individual classes in Module 2
Total		62	0	30	32		
Professional internship		Hours Total	Form of crediting a course			Learning outcomes: P8S_	
Classes with students – teaching and co-teaching	3-4	60	Credit			UU +++ WG,UW, UK, UO,KK, KO, KR +	

THIRD YEAR 2023/2024

Course	Semester	Hours Total	Form of classes			Form of crediting a course	Learning outcomes: P8S_
			L	S	C		
Elective classes *	5	10	-	10	-	Credit	Learning outcomes of individual classes in Module 2
Individual scientific reports including progress achieved	6	2	-	-	2	credit with a grade	WG, UW, UK,UO, UU,KO +
Mathematical models in medical research	6	20	-	-	20	exam	UW ++; WG,WK,KK,KO +
Total		32	0	10	22		
Professional internship		Hours Total	Form of crediting a course			Learning outcomes: P8S_	

Classes with students – teaching and co-teaching	5-6	60	Credit			UU +++ WG,UW, UK, UO, KK, KO, KR +
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FOURTH YEAR 2024/2025

Course	Semester	Hours Total	Form of classes			Form of crediting a course	Learning outcomes: P8S_
			L	S	C		
Transfer and commercialisation of research results	7	8	-	8	-	exam	UU +++; WG, WK, UW ++; KO, KR +
Total		8	0	8	0		
Professional internship		Hours Total	Form of crediting a course			Learning outcomes: P8S_	
Classes with students – teaching and co-teaching	7-8	60	Credit			UU +++ WG,UW, UK, UO, KK, KO, KR +	

2. ELECTIVE CLASSES MODULE*:

Obligation to complete a total of 20 hours of elective classes during studying.

Doctoral students can choose:

- 1) one elective class from the fourth semester
- 2) one elective class from the fifth semester

Course	Semester	Hours Total	Form of classes			Form of crediting a course	Learning outcomes: P8S_
			L	S	C		
Overview of basic experimental methods in medical research	4	10	-	10	-	Credit	WG +++++; UW +++; UK ++; KK +
Practical application of research methods in medical research	4	10	-	10	-	Credit	WG +++++; UW +++; UO ++; UK, KK +
Psychometry and sociological techniques in medical sciences	4	10	-	10	-	Credit	UW +++++; WG, UO +++++; KO, KK +
Public health concerning global health issues	4	10	-	10	-	Credit	WG, WK, UW ++, UU, KO
Good Clinical Practice	5	10	-	10	-	credit with a grade	WG +++; WK, UW,UO,UU,KO,KR +
Good Manufacturing Practice	5	10	-	10	-	Credit	WG +++++; UW +++++ KK +
Sources of information on medicines and therapies	5	10	-	10	-	Credit	UW +++; WG ++; WK, KK +

Carrying out clinical classes	5	10	-	10	-	Credit	UU +++++; WG +++++; KO ++; WK +
Total		80		80			

TOTAL:

	mandatory curricular classes	elective classes	internship	total
First year	156	-	60	216
Second year	52	10	60	122
Third year	22	10	60	92
Fourth year	8	-	60	68
total	238	20	240	498

Matrix of learning outcomes concerning:

Module 1 and 2	P8S_WG	P8S_WK	P8S_UW	P8S_UK	P8S_UO	P8S_UU	P8S_KK	P8S_KO	P8S_KR
Teaching methods in an institution of higher education	++++	++				++++++		+++	
Methodology of scientific research	+++++++		+++++	+++	+	+	++	+++	++
English classes	+	+	+	+	+	+	+	+	+
Evidence Based Medicine principles	+		+				+		+
Information and library science	++++	+++	++++	+	+	+	+		++
Stylistics of scientific expression and communication in science	+++++++	+++	+++	++++	+++	+++	+	+	+
From the source to the bibliography	+++	++	++++	+++					+
Law and ethics in research	+++	++++	++	++++	+		+		+
Protection of intellectual property (in English)	+++	++	++		+			+	+
Biostatics	+	+	+++	+				++	
Interpersonal communication	++	++++		++++				++	
Individual scientific reports including progress achieved	+		+	+	+	+		+	
Mathematical models in medical research	+	+	++				+	+	
Transfer and commercialisation of research results	++	++	++		+++			+	+
Overview of basic experimental methods in medical research	++++		+++	++			+		
Practical application of research methods in medical research	++++		+++	+	++		+		
Psychometry and sociological techniques in medical sciences	++++		++++		++++		+	+	
Public health concerning global health issues	+	+	++			+		+	
Good Clinical Practice	+++	+	+		+	+		+	+
Good Manufacturing Practice	++++		++++				+		
Sources of information on medicines and therapies	++	+	+++				+		
Carrying out clinical classes	++++	+				++++		++	
Classes with students	+		+	+	+	+++	+	+	+

