

## **Curriculum at the Doctoral School run by the Poznan University of Medical Sciences**

### **binding on doctoral students admitted from the 2022/2023 academic year**

#### **I. General characteristics of the curriculum**

##### **§ 1**

1. The Doctoral School run by the Poznań University of Medical Sciences is an organised form of educating doctoral students in the field of medical sciences and health sciences, in the following scientific disciplines: medical sciences, pharmaceutical sciences, health sciences.
2. Education at the Doctoral School shall:
  - 1) prepare students to obtain the Ph.D. degree;
  - 2) be pursued in a full-time mode;
  - 3) last 8 terms, with the possibility of shortening thereof to 6 terms, provided that the curriculum and an individual research plan have been completed, end upon the submission of a doctoral dissertation ;
  - 4) be pursued on the basis of the curriculum and an individual research plan.

##### **§ 2**

1. The curriculum at the Doctoral School shall be in line with the mission of the Poznań University of Medical Sciences and has been developed on the basis of its fundamental concepts: (i) discovering and spreading the truth through scientific research conducted at the highest world level, in the field of broadly understood life sciences, (ii) educating medical staff using modern teaching methods, (iii) cooperating and participating in the development of the system health protection within the region and throughout Poland.
2. The curriculum at the Doctoral School shall be in line with the internationalisation strategy of the Poznań University of Medical Sciences for 2021-2030, as well as with the following objectives: (i) increasing the quantity and quality of scientific research conducted by the University, (ii) developing innovation for the sake of medical education, pharmacy and healthcare, (iii) active cooperation of the University with its environment and developing the educational base in clinical hospitals.

##### **§ 3**

1. The curriculum at the Doctoral School run by the Poznań University of Medical Sciences shall prepare a doctoral student for:
  - 1) obtaining the Ph.D. degree;
  - 2) providing research and development and didactic work;
  - 3) independent planning of own scientific development (including obtaining funds for research);
  - 4) participating in the exchange of scientific experiences and ideas, also in an international environment.

2. As part of the Doctoral School, the doctoral student shall conduct scientific research independently, the effects thereof shall be, in particular:
- 1) scientific publications;
  - 2) participation in research projects;
  - 3) preparation of own grant applications;
  - 4) participation in scientific conferences;
  - 5) doctoral dissertation prepared under the scientific supervision of the thesis supervisor.

## II. Learning outcomes

### § 4

1. The pursuit of the curriculum at the Doctoral School shall result in the achievement of learning outcomes corresponding to qualifications at level 8 of the Polish Qualifications Framework, defined pursuant to the Act of December 22, 2015, on the Integrated Qualifications System (consolidated text: Dz. U. [EN: *Polish Journal of Laws*] of 2018, item 2153, as amended) and regulations issued pursuant to Article 7(3) of this Act. The curriculum shall prepare students for research, research and development, implementation and didactic work.
2. Learning outcomes shall relate to the following scientific disciplines: medical sciences, pharmaceutical sciences, health sciences.
3. Description of the assumed learning outcomes:

Descriptive categories – aspects of fundamental importance	Description component code	Characteristics of the second degree of learning outcomes for qualifications at level 8 of the Polish Qualifications Framework
<b>KNOWLEDGE (The graduate knows and understands):</b>		
Scope and depth / completeness of cognitive perspective and dependencies	<b>P8S_WG</b>	<ul style="list-style-type: none"> <li>▪ to the extent enabling a revision of the existing paradigms – global achievements, comprising theoretical foundations, as well as general issues and selected specific issues – relevant for a scientific discipline</li> <li>▪ main development trends of scientific disciplines a part of which the education is pursued</li> <li>▪ scientific research methodology</li> <li>▪ rules for disseminating the scientific activity outcomes, also in the open-access mode</li> </ul>
Context / conditions, effects	<b>P8S_WK</b>	<ul style="list-style-type: none"> <li>▪ fundamental dilemmas of modern civilization</li> <li>▪ economic, legal and other important conditions of scientific activity</li> <li>▪ fundamental principles of knowledge transfer to the economic and social sphere and commercialisation of the scientific activity outcomes and know-how related to these outcomes</li> </ul>
<b>SKILLS (The graduate can):</b>		

Knowledge exploitation / problems solved and tasks performed	<b>P8S_UW</b>	<ul style="list-style-type: none"> <li>▪ exploit knowledge from various fields of science to creatively identify, formulate, and innovatively solve complex problems or perform research tasks, in particular: <ul style="list-style-type: none"> <li>☐ define the goal and subject of scientific research, phrase a research hypothesis,</li> </ul> </li> </ul>
		<ul style="list-style-type: none"> <li>☐ develop research methods, techniques and tools and use them creatively,</li> <li>☐ draw conclusions based on the scientific research outcomes,</li> <li>▪ critically analyse and evaluate the scientific research outcomes, expert activities and other creative works, as well as their contribution to the knowledge development</li> <li>▪ transfer the scientific research outcomes to the economic and social sphere</li> </ul>
Communication / receiving and creating statements, disseminating knowledge in the scientific community and using a foreign language	<b>P8S_UK</b>	<ul style="list-style-type: none"> <li>▪ communicate on specialist topics to the extent rendering active participation in the international scientific environment</li> <li>▪ disseminate the scientific research outcomes, also in forms which are popular at a time</li> <li>▪ initiate a debate</li> <li>▪ participate in a scientific discourse</li> <li>▪ use a foreign language at the B2 level of the European System for the Description of Languages to the extent rendering participation in the international scientific and professional community</li> </ul>
Organisation of work / planning and teamwork	<b>P8S_UO</b>	<ul style="list-style-type: none"> <li>▪ plan and implement both individual and team research projects, also in an international environment</li> </ul>
Learning / planning one's own development and the development of others	<b>P8S_UU</b>	<ul style="list-style-type: none"> <li>▪ independently plan and act for one's own development, as well as inspire and organise the development of others</li> <li>▪ plan classes or groups of classes and deliver them using modern methods and tools</li> </ul>
<b>SOCIAL COMPETENCES (A graduate is ready to):</b>		
Evaluation / critical approach	<b>P8S_KK</b>	<ul style="list-style-type: none"> <li>▪ critically evaluate one's achievements within a given scientific discipline</li> <li>▪ critically evaluate one's own contribution to the development of a given scientific discipline</li> <li>▪ recognise the importance of knowledge in solving cognitive and practical problems</li> </ul>
Responsibility / fulfilment of social obligations and acting in the public interest	<b>P8S_KO</b>	<ul style="list-style-type: none"> <li>▪ fulfil social obligations of researchers and creators</li> <li>▪ initiate actions in the public interest</li> <li>▪ think and act in an entrepreneurial manner</li> </ul>

Occupational role / independence and ethos development	<b>P8S_KR</b>	<ul style="list-style-type: none"> <li>▪ maintain and develop the ethos of research and creative communities, including: <ul style="list-style-type: none"> <li><input type="checkbox"/> independently conduct scientific activities,</li> <li><input type="checkbox"/> respect the principle of public ownership to the scientific activity outcomes, taking into account the principles of intellectual property protection</li> </ul> </li> </ul>
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#### § 5

1. Following the completion of the cycle of classes in each course provided for in curriculum, learning outcomes achieved by doctoral students shall be verified during exams, credits subject to grading or assessments. The form of verification of the learning outcomes under a given course shall be specified in the curriculum pursuit plan.
2. The conditions for passing the course shall be stipulated in the regulations of the classes prepared by the coordinator and announced to the doctoral student in the Electronic Teaching Guide.
3. Any exams and assessments may take the form of written or oral tests of knowledge and skills. Passing of classes may be based on written assessments, multimedia projects or presentations. The coordinator of the course ending with the exam determines the time and place of the examination, providing two dates at least two weeks in advance, in agreement with the representative of the year.
4. The learning outcomes achieved by the doctoral student shall also be verified by evaluating the implementation of an individual research plan (mid-term evaluation).

### **III. General terms and conditions of the curriculum pursuit**

#### § 6

1. The doctoral student shall carry out internships in the form of delivering teaching classes for 30 teaching hours in the first year of the Doctoral School and 60 teaching hours in each subsequent year of education. A doctoral student pursuing doctoral studies as “Doktorat wdrożeniowy” program is obliged to conduct 10-hour classes in each year of education.
2. A detailed plan of internships shall be prepared by the unit where the doctoral student pursues their education. This plan may not conflict with the current timetable of classes attended by the doctoral student in a given academic year.
3. In particularly justified cases, the Rector or the Director of the Doctoral School acting under the authority of the Rector, upon the request made the doctoral student, subject to the consent of the thesis supervisor and the head of the unit, may reduce the number of hours applicable to the internships carried out in the form of delivering teaching classes.
4. Any classes pursued in line with the curriculum at the Doctoral School shall be delivered in Polish and for the foreigners - if the recruitment will be conducted - in English. Decisions in this regard shall be made by the Doctoral School Director and announced in the timetable of classes for a given academic year.
5. A detailed timetable of classes for a given academic year shall be approved by the Doctoral School Director acting on behalf of the Rector of the University and published in the Announcement of the Doctoral School Director.

#### § 7

1. The list of optional classes shall be published to the doctoral student every year in the timetable of classes for a given academic year. The doctoral student shall be obliged to choose optional classes in line with the timetable, including at least one class in English during the course of education. Only English-language optional classes shall be prescribed for the doctoral students pursuing the English-speaking curriculum.
2. Participants of subsequent years of the Doctoral School cannot enrol in the optional class which they have participated in the previous academic years.
3. The doctoral student shall select the optional classes via the WISUS electronic platform. The terms and conditions of these enrolments shall be governed by separate regulations.
4. Participation in the selected optional classes shall be compulsory and they shall be completed in adherence to the rules set out in the regulations of certain optional classes, with the proviso that attendance cannot be the only criterion for passing the class.

## § 8

1. The condition for passing individual years of education at the Doctoral School shall be:
  - 1) for the first year:
    - a) pursuing classes included in the timetable of classes in a given academic year,
    - b) carrying out internships in the form of delivering and co-participating in the delivery of classes,
    - c) submitting an individual research plan within the time limit specified in the Regulations of the Doctoral School,
    - d) preparing a review or authorial paper and its publication or acceptance for printing.
  - 2) for the second year:
    - a) pursuing classes included in the timetable of classes in a given academic year,
    - b) carrying out internships in the form of delivering classes,
    - c) implementation of the research work in accordance with the work schedule included in the individual research plan,
    - d) publishing or accepting for print one original or review publication on the subject of the doctoral thesis during the doctoral school (other than the one submitted for the 1st year) in a peer-reviewed journal included in the list of scientific journals announced by the minister responsible for science (confirmed by the doi number or information from the editorial office of the journal confirming acceptance for publication) or in reviewed materials from an international scientific conference, included in international databases of scientific journals with the largest coverage. The doctoral student must be the first or second author in the original work or the first author in a review.
  - 3) for the third year:
    - a) pursuing classes included in the timetable of classes in a given academic year,
    - b) carrying out internships in the form of delivering classes,
    - c) implementation of the research work in accordance with the work schedule included in the individual research plan,
    - d) presentation of:
      - in the case of preparing a doctoral dissertation in the series of works - presenting two publications on the subject of the doctorate with the first authorship, prepared from the beginning of education at the doctoral school (including at least one original work),
      - in the case of approval for the presentation of a doctoral dissertation on the basis of a scientific monograph - presentation of a summary of the results of scientific research and

presentation of two publications with the first authorship, prepared from the beginning of education at the doctoral school (including at least one original work),

- in the case of approval for the presentation of a doctoral dissertation in the form of “Doktorat wdrożeniowy” - presentation of a part of the implementation documentation and presentation of one original publication with the first authorship, prepared from the beginning of education at the doctoral school.

e) providing confirmation of active participation in at least 1 international scientific conference.

4) for the fourth year:

a) pursuing classes included in the timetable of classes in a given academic year,

b) carrying out internships in the form of delivering classes,

c) implementation of the research work in accordance with the work schedule included in the individual research plan,

d) supplementing the missing publications for the series,

e) submitting a ready-made doctoral dissertation - by the date specified in the individual research plan.

2. The terms and conditions for completing the year must be met by June 30 of a given academic year, except for publications that must be submitted by August 30 of a given academic year. The scientific value of publications intended to constitute the basis for awarding the doctoral degree must comply with the requirements of the current Resolution of the Senate of PUMS.

3. Decisions on crediting subsequent years of education shall be made by the Director of the Doctoral School. In the event of failure to meet any of the conditions for completing the year, the Director of the Doctoral School may decide to take up education conditionally in the next academic year, with the obligation to meet the condition by the date specified in the decision of the Director of the Doctoral School or to remove the doctoral student from the list of participants in the Doctoral School. A doctoral student who has obtained a conditional pass in the second year of the Doctoral School shall proceed to the mid-term evaluation only after fulfilling the condition for completing the year, on the date indicated by the Director of the Doctoral School.

## § 9

1. The doctoral student shall be obliged to prepare and present to the Doctoral School Director annual reports on scientific work, submitted exams and credits received, as well as didactic work along with the thesis supervisor's opinion on the progress in scientific work and preparation of a doctoral dissertation, as well as on didactic work. The annual report shall be submitted by July 20 of each calendar year for a given academic year.

## IV. Curriculum pursuit plan

## § 10

1. The curriculum pursuit plan at the Doctoral School run by the Poznań University of Medical Sciences shall provide for compulsory and optional classes, seminars, e-learning courses, and internships in the form of delivering teaching classes with the teaching load not exceeding 60 hours per year.
2. In justified cases, the doctoral student may petition for shortening of the education period at the Doctoral School, yet not more by than 2 terms. Shortening the education period at the Doctoral School

shall be subject to its Director's consent, who shall establish the individual course of education for the doctoral student.

3. The Doctoral School Director shall establish the individual organisation of education (IOK) for the doctoral student commencing their education during ongoing the academic year (doctoral students admitted as part of the additional recruitment process for persons participating in the implementation of University projects financed from external funds). The IOK may apply to the entire period of education at the Doctoral School.
4. The individual organisation of education shall involve setting separate dates for the curriculum pursuit plan (transfer of classes to the next academic year)
5. Curriculum pursuit plan:

<b>YEAR I (TERMS I, II)</b>				
<b>Type of classes</b>	<b>Name of course</b>	<b>Form of delivering classes</b>	<b>Number of hours</b>	<b>Form of getting a credit</b>
Compulsory	<b>Biostatistics</b>	lectures / tutorials, cat. A	20 (5 lect. / 15 tut.)	credit subject to grading
Compulsory	<b>Medical education</b>	lectures / tutorials, cat. A	15 (3 lect. / 12 tut.)	exam
Compulsory	<b>How to prepare a scientific publication</b>	lectures / tutorials, cat. A	20 (2 lect. / 18 tut.)	exam
Compulsory	<b>Scientific research methodology</b>	lectures/tutorials, cat. A	20 (10 lect. /10 tut.)	exam
Compulsory	<b>Fundamentals of scientific information</b>	tutorials, cat. A	10	credit
Compulsory	<b>Doctoral seminars</b> Public reporting session	seminars	15	credit subject to grading
Optional	<b>Optional classes at one's discretion according to the timetable for a given academic year</b>	seminars	min. 15	credit
Doctoral seminars	<b>Scientific consultations with the thesis supervisor</b>	-	30	credit subject to grading
Professional internships	<b>Professional internship</b> 15h, delivering classes independently 15 hours, co-participating in delivering classes	-	30	credit given by the internship leader
Professional internships – doktorat wdrożeniowy	<b>Professional internship</b> 5h, delivering classes independently 5 hours, co-participating in delivering classes	-	10	credit given by the internship leader

Compulsory training courses	<b>OHS and Fire Safety training</b>	e-learning	4	credit
Compulsory	<b>Academic English</b>	tutorials, cat. A	15	credit subject to grading
	<b>in total:</b>		194/174	
<b>YEAR II (TERMS III, IV)</b>				
<b>Type of classes</b>	<b>Name of course</b>	<b>Form of delivering classes</b>	<b>Number of hours</b>	<b>Form of passing</b>
Compulsory	<b>Medicine history</b>	lectures	15	credit subject to grading
Compulsory	<b>Legal and ethical regulations in scientific research</b>	seminars	15	exam
Compulsory	<b>Doctoral seminars</b> Public reporting session	seminars	20	credit subject to grading
Optional	<b>Optional classes at one's discretion according to the timetable for a given academic year</b>	seminars	min. 15	credit
Doctoral seminars	<b>Scientific consultations with the thesis supervisor</b>	-	30	credit subject to grading
Professional internships	<b>Professional internship</b> delivering classes independently	-	60	credit given by the internship leader
Professional internships – doktorat wdrożeniowy	<b>Professional internship</b> 5h, delivering classes independently 5 hours, co-participating in delivering classes	-	10	credit given by the internship leader
Compulsory	<b>Academic English</b>	tutorials, cat. A	15	credit subject to grading
	<b>in total:</b>		170/120	
<b>YEAR III (TERMS V, VI)</b>				
<b>Type of classes</b>	<b>Name of course</b>	<b>Form of delivering classes</b>	<b>Number of hours</b>	<b>Form of passing</b>
Compulsory	<b>Economics of a scientific project</b>	lectures/tutorials, cat. A	10 (5 lect. / 5 tut.)	exam
Compulsory	<b>Philosophy</b>	lectures	30	exam



Compulsory	<b>Doctoral seminars</b> Public reporting session	seminars	20	credit subject to grading
Optional	<b>Optional classes at one's discretion according to the timetable for a given academic year</b>	seminars	min. 15	credit
Doctoral seminars	<b>Scientific consultations with the thesis supervisor</b>	-	30	credit subject to grading
Professional internships	<b>Professional internship delivering classes independently</b>	-	60	credit given by the internship leader
Professional internships – doktorat wdrożeniowy	<b>Professional internship</b> 5h, delivering classes independently 5 hours, co-participating in delivering classes	-	10	credit given by the internship leader
Compulsory	<b>Academic English</b>	tutorials, cat. A	15	credit subject to grading
	<b>in total:</b>		180/130	
<b>YEAR IV (TERMS VII, VIII)</b>				
<b>Type of classes</b>	<b>Name of course</b>	<b>Form of delivering classes</b>	<b>Number of hours</b>	<b>Form of passing</b>
Doctoral seminars	<b>Scientific consultations with the thesis supervisor</b>	-	30	credit
Professional internships	<b>Professional internship delivering classes independently</b>	-	60	credit given by the internship leader
Professional internships – doktorat wdrożeniowy	<b>Professional internship</b> 5h, delivering classes independently 5 hours, co-participating in delivering classes	-	10	credit given by the internship leader
	<b>in total:</b>		90/40	
	<b>Total within years I-IV:</b>		<b>634/464</b>	

6. Should the doctoral student file a relevant request, the education shall be subject to suspension for a period corresponding to the duration of maternity leave, paternity and parental leave, as well as the of circumstances set out in the Regulations of the Doctoral School.
7. Once the education suspension period at the Doctoral School has ended, the doctoral student shall continue the pursuit of the Doctoral School curriculum on the terms established by its Director.
8. Should the doctoral student not re-take the education within 14 days after the education suspension period has ended, they shall be removed from the list of participants of the Doctoral School.