

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

### **binding on doctoral students admitted from the 2021/2022 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 or artistic discipline</li> <li>▪ main development trends of scientific or artistic 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 or art 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 or creative 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 or artistic 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> |

#### § 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.
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 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.
2. In exceptionally justified cases, the Doctoral School Director, 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.
3. Any classes pursued in line with the curriculum at the Doctoral School shall be delivered in Polish and for the foreigners 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.
4. 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) 1)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 acceptance for printing one authorial publication during the Doctoral School (other than the one presented for the 1<sup>st</sup> year credit) in a peer-reviewed journal included in the list of scientific journals announced by the minister competent for science (certified by the DOI number or information from the editorial office of the journal confirming acceptance for publication) or in peer-reviewed materials derived from an international scientific conference, included in international databases of scientific journals with the largest coverage, for which the doctoral student is the first author.
  - 3) 1)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) presenting a summary of the scientific research outcomes in the case of preparing a monograph or an implementation work or two publications with the first authorship if the dissertation is prepared from a series of papers,
    - e) providing confirmation of active participation in at least 1 international scientific conference.
  - 4) 1)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) submitting a ready-made doctoral dissertation.
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 doctoral dissertation shall be submitted within the time limit specified in the individual research plan.

§ 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.
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<br>(5 lect. / 15 tut.) | credit subject to grading       |

|                                |   |                                   |                           |  |
|--------------------------------|---|-----------------------------------|---------------------------|--|
| Compulsory                     | <b>Medical education</b>  | lectures / tutorials,<br>cat. A   | 15<br>(3 lect. / 12 tut.) | exam   |
| Compulsory                     | <b>How to prepare a scientific publication</b>  | lectures / tutorials,<br>cat. A   | 20<br>(2 lect. / 18 tut.) | exam   |
| Compulsory                     | <b>Scientific research methodology</b>  | lectures/tutorials,<br>cat. A     | 20<br>(10 lect. /10 tut.) | exam   |
| Compulsory                     | <b>Fundamentals of scientific information</b>   | tutorials, cat. A                 | 10                        | credit   |
| Compulsory                     | <b>Doctoral seminars</b><br>Public reporting session  | seminars                          | 25                        | credit<br>subject to<br>grading                |
| Optional                       | <b>Optional classes at one's discretion according to the timetable for a given academic year</b>                            | lectures/seminars                 | min. 15                   | credit   |
| Doctoral seminars              | <b>Scientific consultations with the thesis supervisor</b>  | -                                 | 30                        | credit<br>subject to<br>grading                |
| Professional internships       | <b>Professional internship</b><br>15h, delivering classes independently<br>15 hours, co-participating in delivering classes | -                                 | 30                        | credit given<br>by the<br>internship<br>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<br>subject to<br>grading                |
|                                | <b>in total:</b>  |                                   | 204                       |  |
| <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<br>subject to<br>grading                |
| Compulsory                     | <b>Legal and ethical regulations in scientific research</b>   | seminars                          | 30                        | exam   |
| Compulsory                     | <b>Doctoral seminars</b><br>Public reporting session  | seminars                          | 30                        | credit<br>subject to<br>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<br>subject to<br>grading                |

|                                  |  |                                   |                           |                                       |
|----------------------------------|--|-----------------------------------|---------------------------|---------------------------------------|
| Professional internships         | <b>Professional internship delivering classes independently</b>                                  | -                                 | 60                        | credit given by the internship leader |
| Compulsory                       | <b>Academic English</b>  | tutorials, cat. A                 | 15                        | credit subject to grading             |
|                                  | <b>in total:</b>   |                                   | 195                       |                                       |
| <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<br>(10 lect. / 5 tut.) | exam                                  |
| Compulsory                       | <b>Philosophy</b>  | lectures                          | 30                        | exam                                  |
| Compulsory                       | <b>Doctoral seminars<br/>Public reporting session</b>  | seminars                          | 35                        | 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 |
| Compulsory                       | <b>Academic English</b>  | tutorials, cat. A                 | 15                        | credit subject to grading             |
|                                  | <b>in total:</b>   |                                   | 195                       |                                       |
| <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 |
|                                  | <b>in total:</b>   |                                   | 90                        |                                       |
|                                  | <b>Total within years I-IV:</b>  |                                   | <b>684</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.