

**Education Programme in Mathematics
in the discipline of mathematics
conducted in English
at the Doctoral School of Exact
and Natural Sciences**

**I
General provisions**

1. The education programme in Mathematics has been developed according to the Act of 20 July 2018 on Law on Higher Education and Science, and the guidelines in force at the Jagiellonian University in Kraków.
2. The education programme leads to achieving learning outcomes for the qualifications at Level 8 of the Polish Qualification Framework (PQF).
3. The education programme lasts 8 semesters.
4. Detailed requirements and eligibility criteria for admission to the programme are defined in the admission terms and conditions as approved by the Jagiellonian University Senate.
5. Within 3 months of the commencement of the education programme, a doctoral student has their supervisor(s) appointed, according to the Doctoral School Regulations.
6. Within 12 months of the commencement of the education programme, a doctoral student shall submit an Individual Research Plan (IRP) to the programme coordinator. The IRP shall cover a period equal to the duration of the education programme and shall specify, among other issues, the schedule for the preparation of the dissertation.
7. By the 15th October a doctoral student shall submit to the programme coordinator the plan for implementing the education programme for a given academic year. From the 2nd year onwards, this plan is subject to the approval of the supervisor(s) and auxiliary supervisor.
8. A doctoral student is required to achieve a minimum of 40 ECTS credits (ECTS – European Credit Transfer and Accumulation System) allocated to the Mathematics education programme and to attain all the required learning outcomes as specified at the Level 8 of the Polish Qualification Framework. 20 ECTS are to be achieved by the end of the semester in which mid-term assessment is conducted. A doctoral student is obliged to achieve all the learning outcomes at the Level 8 of the Polish Qualification Framework.
9. Detailed instructions for achieving and assessing learning outcomes shall be specified in the syllabuses of the individual courses.

II

Professional traineeship

1. Professional traineeship shall take the form of teaching or co-teaching classes.
2. In agreement with and at the application of the doctoral student, the programme coordinator may accept other forms of professional traineeship, including didactic traineeship, such as conducting classes promoting science, provided that such a form ensures achieving all the learning outcomes allocated to professional traineeship.
3. Professional traineeship can also be conducted in a business company, a foundation, etc.
4. The rules for teaching traineeship for doctoral students of the education programme in Mathematics shall be determined by the coordinator of this programme.
5. The number of hours of professional traineeship shall not exceed 60 teaching hours (a teaching hour equals 45-minutes) per one academic year.

III

Study and research progress assessment

1. The supervisor(s), in cooperation with the programme coordinator and the Director of the Doctoral School, shall supervise implementing the education programme and the Individual Research Plan of the doctoral student.
2. Annually, but no later than by 17 September, a doctoral student shall submit to the programme coordinator a written report on the implementation of the Individual Research Plan, reviewed by the supervisor(s) and the auxiliary supervisor.
3. The report submitted for the mid-term assessment shall be considered as a report within the meaning of Point 2 and the deadline for its submission shall be the same as the deadline for submission of the report for the mid-term assessment.
4. The programme coordinator shall assess the degree of implementing the study and research work based on the information from the doctoral student as defined in Point 2, and a report from the University Study-Oriented System (USOS).
5. Changes to the Individual Research Plan, in particular modifying or rescheduling the doctoral student's duties, shall require consulting the programme coordinator.
6. The programme coordinator may decide to reschedule the doctoral student's duties resulting from the education programme and to accept courses or activities not specified in the education programme as part of the performance of the duties (with the relevant allocation of ECTS credits), provided that no changes to the Individual Research Plan are needed.
7. When additional funding is available or in well justified cases, the programme coordinator, in consultation with School representatives of the Jagiellonian University PhD Student Association and the Director of the Doctoral School, may oblige doctoral students to take courses not specified in the education programme.
8. By the end of the 24th month of education, a doctoral student shall be subject to mid-term assessment before the assessment committee appointed by the Director of the Doctoral School.

9. The date of the mid-term assessment is established by the Director of the Doctoral School on the proposal of the programme coordinator.
10. One month before the scheduled meeting of the mid-term assessment committee, a doctoral student shall submit to the programme coordinator a written report on the implementation of the education programme and Individual Research Plan. The report has to be approved by the supervisor(s) and the auxiliary supervisor before submission.
11. Meetings of the mid-term assessment committee shall be attended by the committee members, and the doctoral student in those parts to which they have been invited, in accordance with separate provisions.

IV Schedule

SCHEDULE FOR THE EDUCATION PROGRAMME IN MATHEMATICS

Doctoral School of Exact and Natural Sciences Education programme in Mathematics						
ITEM	AIM	DESCRIPTION	PQF /PRK*	SEMESTE R	NO OF ECTS	LIMITS
OBLIGATORY COURSES (25 ECTS minimum or 21 ECTS if a PhD student holds a proper language certificate)						
Basic seminar		Research seminar aimed at discussing recent achievements in a given discipline Assessment: credit based on PhD student's participation in the seminar	P8S_WG P8S_UW P8S_KK	I-VIII	1-2 for 30 hours	minimum 12 ECTS
Specialised courses		Minimum one course / lecture selected by a PhD student. The course presents basic or current research problems in a given discipline Assessment: examination	P8S_WG P8S_UW	I-IV	6 (lecture and classes) 3 (lecture only)	minimum 6 ECTS
Seminar for PhD students No I		Preparation for the research work Assessment: credit	P8S_UK P8S_KR	II	1	1 ECTS
Seminar for PhD students No II		Preparation for the research work. Communicating research results by a PhD student Assessment: credit	P8S_UK P8S_UO P8S_KR	IV	2	2 ECTS
English C1		A course at C1 level (not applicable to those PhD students who hold C1 language certificate or are graduates of master's programmes conducted in English) Assessment: examination	P8S_UK	I-II	4 for 60 hours	4 ECTS

JOINT ELECTIVE ACTIVITIES FOR DOCTORAL SCHOOL OF EXACT AND NATURAL SCIENCES					
Doctoral School Seminar	Monthly interdisciplinary seminar with lectures in English offered by the guest researchers Assessment: credit based on participation	P8S_WG P8S_UW P8S_UK	I-VIII	1 per academic year	
Modern foreign language	A course offered as a second foreign language Assessment: examination	P8S_UU	I-IV	4 for 60 hours	
Polish for foreigners	A course in Polish Assessment: examination	P8S_UU	I-VIII	4 for 60 hours	
General knowledge development	One course out of a range of courses offered before each academic year (e.g. a course in philosophy, ethics, IA or cosmology) Assessment: examination	P8S_WK	I-VIII	2 for 30 hours	
Professional competencies and soft skills development	A course selected by a PhD student from a range of courses offered before each academic year (e.g. career planning, managerial skills, business communication) Assessment: as provided in the course syllabus	P8S_WK	I-VIII	2 for 30 hours	
ELECTIVE ACTIVITIES DEVELOPING PROFESSIONAL COMPETENCIES					
Optional activities	Lectures (3 ECTS for 30 hours), seminars (2-4 ECTS for 60 hours; the number of ECTS depends on the number of academic talks), studying specialized material (2 ECTS for studying the material, which is equivalent to a 30-hour course), activities aimed at soft skills development organised by the Faculty of Mathematics and Computer Science	P8S_UU P8S_WG	I-VIII	according to the description	

TRAINEESHIP					
Traineeship in a company	Optional professional traineeship in an industrial company Assessment: by the programme coordinator on the basis of the participation certificate from the company	P8S_UU P8S_KO	III-VIII	1 for 30 hours	maximum 6 ECTS
Traineeship in academic didactics	Preparation for academic teaching, including conducting classes Assessment: by the programme coordinator on the basis of the opinion issued by a person supervising conducting classes by a PhD student	P8S_UU P8S_UK	I-VIII	8 for 150 hours	maximum totally 10 ECTS
<p>Additional obligatory courses:</p> <ol style="list-style-type: none"> 1. PhD students who start their education in the Doctoral School are required to complete a Health and Safety at Work training / BHP. 2. First Aid course (theoretical part and practical part) is to be completed by the end of the 2nd semester. 3. PhD students who plan research involving vertebrate animals are required to take training to obtain appropriate qualifications. 					

*PQF /PRK – Polish Qualifications Framework / Polska Rama Kwalifikacji in accordance with the Regulation of the Minister of Science and Higher Education on the characteristics of second-level learning outcomes for qualifications at Levels 6-8 of the Polish Qualifications Framework.

<https://prk.men.gov.pl/en/1en/>

Conducting research and preparing a doctoral dissertation within the meaning of Article 187(3) of the Act of 20 July 2018 - Law on Higher Education and Science (i.e. Journal of Laws of 2023, item 742 as amended) fulfills in part achieving all types of learning outcomes for qualifications at Level 8 of the PQF. The achievement of these outcomes is verified by the supervisor.

Doctoral students with disabilities and persons in a special health situation may apply for the adaptation of the education process realisation to their needs, according to the principles specified in the order of the Jagiellonian University Rector.

V

Final provision

The *Mathematics* education programme in the discipline of mathematics at the Doctoral School of Exact and Natural Sciences shall enter into force on the date of the Resolution.