

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

**I  
General provisions**

1. The education programme in Astronomy 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 12 months of the commencement of the education programme, a doctoral student shall submit an Individual Research Plan (IRP) to the programme coordinator for their opinion and submission to the Director of the Doctoral School.
6. A doctoral student is required to achieve a minimum of 40 ECTS credits (ECTS – European Credit Transfer and Accumulation System) allocated to the Astronomy education programme and to attain all the required learning outcomes as specified at the Level 8 of the Polish Qualification Framework. 22 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.
7. 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. 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 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).
4. Changes to the Individual Research Plan, in particular modifying or rescheduling the doctoral student's duties, shall require consulting the programme coordinator.
5. 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.
6. 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.
7. By the end of the 24<sup>th</sup> 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.
8. The date of the mid-term assessment is established by the Director of the Doctoral School on the proposal of the programme coordinator.
9. 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.
10. 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 ASTRONOMY**

<b>DOCTORAL SCHOOL OF EXACT AND NATURAL SCIENCE EDUCATION PROGRAMME IN ASTRONOMY</b>						
<b>Item (name of the course)</b>	<b>Objective</b>	<b>Description</b>	<b>PQF*</b>	<b>Semester</b>	<b>ECTS</b>	<b>No of hours</b>
<b>OBLIGATORY COURSES (28 ECTS MINIMUM)</b>						
English course		English classes at C1 level for PhD students who do not hold a C1 certificate or are not graduates of master's studies conducted in English. Assessment: <b>examination</b>	P8S_UK	I	4	60
Specialist course		Two lectures from at least three offered: Presentation of the foundations and current research problems of a given discipline. Assessment: <b>examination</b>	P8S_WG P8S_UW	I-IV	4/8	60/120
Doctoral seminar		Preparation for research work, analysis and creative synthesis of world scientific achievements, identifying and solving research problems, participating in the exchange of scientific experience and ideas. Assessment: <b>assessment of the paper and activity at the seminar.</b>	P8S_WG P8S_UW	I-VI	4/12	30/90
Workshop under the direct supervision of the supervisor		PhD student research under the direct supervision of the supervisor. Assessment: <b>awarded by the supervisor; with credit</b>	P8S_UW P8S_UK P8S_UO P8S_KK P8S_KR	I-VIII	4/16	60/240

Research workshop	Individual PhD student's research, preparation of the doctoral dissertation Assessment: <b>awarded by the supervisor</b>	P8S_W P8S_U	I-VIII	No ECTS	Up to 8 hours daily
<b>JOINT ELECTIVE ACTIVITIES FOR THE DOCTORAL SCHOOL OF EXACT AND NATURAL SCIENCES (4 ECTS MINIMUM)</b>					
Doctoral School seminar	Monthly interdisciplinary seminar with lectures in English offered by the guest researchers Assessment: <b>credit</b>	P8S_WG P8S_UW P8S_UK	I-VIII	4 (1 x 4)	Minimum 6 seminars a year
Modern foreign language	A course offered as a second foreign language Assessment: <b>examination</b>	P8S_UU	I-IV	4	60
Polish for foreigners	Assessment: <b>examination</b>	P8S_UU	I-VIII	4	60
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: <b>examination</b>	P8S_UW P8S_KR P8S_WK	I-VIII	2 for each 30 hours	30 or 60
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: <b>as provided in the course syllabus</b>	P8S_WK P8S_KR P8S_KO	I-VIII	2 for each 30 hours	30

OPTIONAL ACTIVITIES DEVELOPING PROFESSIONAL COMPETENCIES (4 ECTS MINIMUM)					
Astronomical Observatory Seminar	Participation in chosen seminars to broaden the knowledge of the recent astronomy achievements and to learn how to deliver seminars. Assessment: <b>credit based on a PhD student's declaration that s/he participated in at least 10 seminars during the year.</b>	P8U_U P8U_W	I-VIII	1/8	minimum 5 seminars per semester
Other courses and activities leading to attaining competences to accomplish IRP	For example: summer schools, courses completed at other universities, including foreign universities. Assessment: <b>as provided in the course syllabus</b>	P8S_KK P8S_UO	I-VIII	According to the programme envisaged by the programme coordinator	35 hours minimum
TRAINEESHIP					
Traineeship in academic didactics	Preparation for work as an academic teacher: developing communication skills and knowledge transfer skills. Assessment: <b>credit based on the opinion issued by a person supervising conducting classes by a PhD student</b>	P8U_U P8U_K	I-VIII	1 for 15 hours	Up to 60 hrs a year
Traineeship in a company	Optional; in an industrial company or other company relevant to the PhD student, for a total of 3 months. Assessment: <b>credit based on the participation certificate from the company</b>	P8U_U P8U_K	IV-VIII	1 ECTS point for 35 hours of internship	Up to 3 months

**Additional obligatory courses:**

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 2<sup>nd</sup> 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/en/>

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