## **CURRICULUM OF PH.D. STUDIES**

## AT THE NICOLAUS COPERNICUS ASTRONOMICAL CENTER OF THE POLISH ACADEMY OF SCIENCES [Centrum Astronomiczne im. Mikolaja Kopernika Polskiej Akademii Nauk]

- 1. The Center offers doctorate degree programmes in astronomy and astrophysics, including cosmology.
- 2. The studies are individual studies on a full-time basis carried out under the supervision of a tutor or supervisor.
- 3. The area of research conducted by a Ph.D. student, a detailed timetable (including lectures and seminars concerning the researched area) and the topic of the Ph.D. dissertation shall be determined by his or her tutor or supervisor. Any tasks assigned by the tutor do not excuse a Ph.D. student from his or her duties specified in section 5.
- 4. A Ph.D. student is required to submit an annual progress report on his or her research on the same terms and conditions as the full-time employees of the Center.
- 5. The rules for progression to the next year:
  - 5.1 Ph.D. students are required to attend the regular seminars held at the Center as well as the monograph courses given by the Center's employees, and also occasionally by lecturers invited by the Center.
  - 5.2 In each semester a monograph course of at least 24 hours is held in the Center. The course concludes with an examination. Every two years an Observation Laboratory course of at least 24 hours is held.
  - 5.3 In the first six semesters of the studies a Ph.D. student is required to pass examinations on at least four monograph courses at the Center and to pass the Observation Laboratory course, subject to section 5.7.
  - 5.4 Exam results are subject to assessment based on a four grade scale, from 2 to 5, where 2 is the failing grade and 5 the highest grade.
  - 5.5 In the first year of the studies a Ph.D. student is required to complete a training course of the Center's computer system and the teleconference system.
  - 5.6 In justified cases, Ph.D. students may, with the prior consent of their tutor, attend monograph courses, concluded with an examination, held at academic institutions other than the Center, and specifically at the Warsaw University and the Nicolaus Copernicus University in Toruń.
  - 5.7 If the conduct of research or the preparation of a Ph.D. dissertation involves an extended stay at a research institution other than the Center, the tutor shall determine the terms and conditions of completing a given semester. Specifically, the tutor may agree that monograph courses attended outside the Center will be considered equivalent to the courses referred to in section 5.3.
  - 5.8 Ph.D. students shall be required to attend a Ph.D. seminar.
  - 5.9 In justified cases, the terms and conditions of the completion of the studies may be determined in a separate agreement between the Ph.D. student and his or her tutor and the Ph.D. Studies Director. Each agreement must be approved by the Director of the Center.
- 6. In order to complete the studies, each Ph.D. student is required to accumulate at least 37 European Credit Transfer System (ECTS) credits throughout the entire period of PhD study, including:
  - at least 5 ECTS credits for specialisation activities and
  - at least 5 ECTS credits for teaching activities.
  - 6.1 General activities:
    - attending a monograph course (at least 24 hours) and taking an examination 3 ECTS credits;
    - attending a monograph course (at least 24 hours), without taking an examination 1 ECTS credit;
    - completion of the Observation Laboratory course 3 ECTS credits;
    - attending a regular seminar or the Journal Club at the Center 0.5 ECTS credit for each semester;
    - attending a regular seminar at the Astronomical Observatory of the Warsaw University or at the Centre for Astronomy of the Nicolaus Copernicus University in Toruń – 0.5 ECTS credit for each semester:
  - 6.2 Specialisation activities:
    - publication of a peer-reviewed paper (only the first and the second author) 3 ECTS credits;
    - giving a talk (oral contribution) at an international conference 1 ECTS credit;
    - participation in a research school 1 ECTS for each week, no more than 4 ECTS credits throughout the entire period of PhD study;
    - foreign internship or observations 2 ECTS for each month, no more than 4 ECTS credits throughout the entire period of PhD study;
    - receiving a research grant 1 ECTS credit;

- completion of a training course of the Center's computer system and the teleconference system 1
  ECTS credits;
- a foreign language course 3 ECTS credits for each 100 hours, no more than 3 ECTS credits throughout the entire period of PhD study.
- 6.3 Teaching activities:
  - participation in and presentation of research results at the Ph.D. seminar 0.5 ECTS credit;
  - giving a research seminar (at least 40 minutes) − 1 ECTS credit;
  - giving a 20-minute research seminar 0.5 ECTS credit;
  - giving a popular science lecture 0.5 ECTS credit;
  - popularisation of science in open doors events, science picnics, science festivals, etc. 0.5 ECTS for each 10 hours, no more than 2 ECTS throughout the entire period of PhD study;
  - publication a popular science article 1 ECTS credit.
- 7. The condition of completion of the studies is the fulfilment of all the obligations specified in section 5 and the accumulation of the required number of ECTS credits (section 6).
- 8. The fulfilment of the requirements specified in sections 5 and 6 should be recorded in the examination card kept by the Ph.D. student in the form attached hereto as Attachment No. 4.