

**Resolution No. 71/XII/2023  
of the Jagiellonian University Senate  
of 20 December 2023**

**on: the admission rules to the Doctoral School of Exact and Natural Sciences at the  
Jagiellonian University for the academic year 2024/2025**

**Acting on the basis of Article 200(2) of the Act of 20 July 2018 – Law on Higher Education and Science (Journal of Laws of 2023, item 742, as amended), hereinafter referred to as the Act, it is agreed as follows:**

**Section I  
General provisions**

**§ 1**

1. The Resolution sets out the admission rules to the Doctoral School of Exact and Natural Sciences at the Jagiellonian University, including the admission terms and conditions.
2. Whenever in this Resolution reference is made to:
  - 1) the Rector – shall mean the Rector of the Jagiellonian University;
  - 2) the School – shall mean the Doctoral School of Exact and Natural Science at the Jagiellonian University;
  - 3) Director – shall mean the person acting as the Director of the Doctoral School;
  - 4) programme – shall mean the education programme offered at the Doctoral School;
  - 5) committee – shall mean the admission committee;
  - 6) competition – shall mean the admission procedure conducted to select candidates for a given education programme;
  - 7) system – shall mean the Online Application System (IRK).

**§ 2**

Admission for the education programme has a form of a competition procedure.

**Section 2  
The admission committee**

**§ 3**

1. An admission committee for the programme shall be appointed by the Director from among the employees of the University. The committees are appointed upon the proposal of the programme coordinators.
2. On the recommendation of the programme coordinator, the Director shall appoint a chairperson, a deputy chairperson and a secretary.
3. At least half of the committee members shall hold an academic title or a post-doctoral degree, or shall be employed as the University professors.
4. In justified cases, the committee may include employees of other universities or entities with which the University has signed an agreement or a contract.
5. In justified cases, the Director may appoint more than one admission committee for a programme, in compliance with paragraphs 1 to 4.

6. The committee shall be appointed no later than 7 days before the commencement date of the first competition round procedure for a given academic year. The committee shall be appointed for the duration of the admission process for the academic year 2024/2025.
7. Participation in the work of the committee shall be remunerated in the amount and according to the rules defined in the Order of the Rector.
8. Under the circumstances which prevent a committee member from participating in the work of the committee, the Rector shall dismiss such a member and appoint a new member, in compliance with paragraphs 1 to 4.
9. A member of the committee shall inform the chairperson, or the deputy chairperson if this concerns the chairperson, of any circumstances, which might affect his or her impartiality in assessing the candidates.
10. In the situation referred to in paragraph 9, the member of the committee shall be excluded from assessing a given candidate. If the chairperson is excluded, the deputy chairperson shall continue the work of the committee. The exclusion of a committee member shall be recorded in the committee report of the meeting. If the number of the excluded committee members prevents the committee from functioning, paragraph 8 shall apply mutatis mutandis.
11. The Director may appoint an examination panel or panels, taking into account the needs arising from the admission process. The Director shall specify the scope and manner of the operation of the examination panel. The examination panel shall be chaired by a member of the committee designated by the Director upon recommendation of the programme coordinator. The provisions of paragraphs 8-10 apply mutatis mutandis.

#### § 4

1. The committee carries out admission activities, specifically related to:
  - 1) conducting examinations or interviews (subject to § 3(11));
  - 2) determining the results of the admission scores, in compliance with the admission terms and regulations and other binding provisions of law;
  - 3) recommending for admission or placing on a reserve list, or not recommending for admission with the formulation of reasons;
  - 4) considering applications and requests submitted by applicants as well as giving an opinion on requests for reconsideration.
2. The committee or the chairperson of the examination panel may decide to conduct interviews by means of distance communication (online).
3. The committee shall set the minimum admission score required for recommendation for admission or inclusion in the reserve list, no later than at the first committee meeting at which the ranking list for the programme is approved and signed. Once established, the minimum score required for admission shall be valid for all competition rounds conducted for the programme, except for the competitions conducted under special procedures referred to in § 7, paragraph 4. A decision of refusal of admission on the grounds of an

insufficient number of points shall be issued for all applicants whose score is lower than the required minimum admission score.

4. The committee shall debate in the presence of at least half of its members and shall make decisions by an absolute majority. In the case of a tied score, the chairperson gives the casting vote.
5. The committee shall document the course of each stage of the admission procedure by drawing up reports signed by all the committee members taking part in a given procedure. In the case of the admission stage conducted by means of distance communication, the documents in electronic form, including reports can be accepted by the committee members. The relevant printouts of the documents, together with confirmation of acceptance of their content, should be included in the documentation of the admission procedure.
6. Up to 14 days after determining the admission threshold score, the chairperson shall submit to the Director a report signed by all members of the committee participating in the activity. The report shall include separately a list of applicants recommended for admission, together with a reserve list (if created), and a list of applicants not recommended for admission.
7. The reports are filed by the School in the documentation of the admission procedures.
8. The Director approves the list of the applicants admitted to the School and on behalf of the Rector issues decisions on refusal of admission.
9. A decision to refuse admission to the School may be appealed against by an application for reconsideration. The application should be submitted to the Rector within 14 days from the delivery date of the decision. Applicants are advised to indicate violation of the admission terms and conditions, which they believe has taken place.

### **Section III**

#### **Admission procedures**

##### **§ 5**

1. At least two weeks before the admission launch, the Director shall specify, by means of a communication posted on the website of the School:
  - 1) the detailed organization conditions and the admission competition schedule,
  - 2) the number of places available in the competition,
  - 3) a list and method of submitting the required application documents, in particular the requirement to provide translations, apostille or to legalise the documents issued abroad, and the procedure for exemption from this requirement,
  - 4) in justified cases, a list of research problems or interview questions.
2. Applicants who have completed the required steps by the deadline shall be considered for admission.
3. Applicants' individual admission scores are expressed as a number from 0 (zero) to 100 (one hundred) to two decimal places and placed in the ranking list in descending order.
4. The basis for computing the results of the admission competition is set out in the Annex to this Resolution.

5. Lists of applicants qualified for admission are established on the basis of the number of places available and the results of the admission procedures, taking into account the minimum admission score required to be recommended for admission or placed on the reserve list, referred to in § 4 (3).
6. Admission may be conducted electronically via the system. In such a case:
  - 1) the detailed conditions of organisation and the competition schedule as well as the method of submitting the documents shall be established in consultation with the head of the Admission Office of the University before the announcement referred to in § 5, paragraph 1 is posted on the website of the School;
  - 2) the applicants create their individual accounts in the system and fill in electronic forms, in which they provide personal data and contact details;
  - 3) by creating the accounts, the applicants confirm that they have read the information on personal data processing;
  - 4) the information on the admission process is provided to the applicants via the system or the website of the School. The applicants are recommended to read the information provided via the system and the website on an ongoing basis and are responsible for the consequences of failing to do so;
  - 5) the application for admission is made by filling in an electronic form corresponding to a given competition round held in the system;
  - 6) only the applications of the candidates who have met all the stipulated conditions by the deadline, in particular the applications delivered with the complete set of the documents by the dates and in the manner specified in the announcement referred to in § 5(1), are considered. In the case of documents sent by post, the date of their receipt by the School decides on meeting the deadline. The fact that the applicants provided the data or documents in the past as part of any admission process at the University, or that they are currently studying or did so in the past, does not exempt them from the obligation to provide required data and a complete set of documents as part of their application for admission to the School for a given academic year;
  - 7) the admission committee informs the University Admission Office about the decision taken on each application processed through the system. Ranking lists are published in the system;
  - 8) the information on the acceptance for admission and on the place and date by which the applicants have to enrol on the list of doctoral students (hereinafter referred to as enrolment) is communicated via the system. Having received the information in the system, the applicants are obliged to enrol by the deadline indicated in the announcement referred to in § 5, para. 1. Failure to enrol by the deadline is tantamount to the resignation and results in issuing a decision to refuse admission. In justified cases, the Director may set a new, individual date of enrolment;
  - 9) To manage the enrolment the applicant has to meet the conditions referred to in Article 200(1) of the Act of 20 July 2018 – Law on Higher Education and Science. The completeness of the documents provided has to be verified by the University admission officer who also confirms that the data contained therein is consistent with the data in

the application forms printed from the system. The enrolment is made through the procedure established for the purpose of transferring the personal data of the applicant accepted for admission from the system to the University System for Study Support (USOS), taking into account point 11;

10) when an inconsistency in the documents is noticed during the enrolment stage, the applicant's enrolment file is submitted to the Director, who may, depending on the nature and extent of the discrepancies, modify the decision of the acceptance for admission on the basis of the incorrect data, which results in refusal to enrol.

11) upon the consent of the Director, enrolment may be made by correspondence, either by post or in an electronic manner. The date of receipt of all the required documents at the address provided to the applicant shall be considered in order to determine whether the deadline for enrolment is met.

7. When the competition procedure is conducted outside the system, it shall be conducted in compliance with the procedure set out in the announcement referred to in § 5 (1).
8. An applicant accepted for admission may enrol to one doctoral school only and shall declare that at the time of enrolment he or she is not a doctoral student at any other doctoral school. It is unacceptable to re-enrol to the School if on the day of enrolment the applicant has the status of a doctoral student of this School.
9. In the case of an education programme where doctoral students are exposed to factors that are harmful or hazardous to health, the applicants shall, during their enrolment, receive a referral for medical examination by an occupational medicine physician. The applicant shall be required to provide a medical certificate of no contradictions to undertake the programme, by the date and at the address designated by the Director.
10. An applicant who has been accepted for admission may designate the representative, who shall provide a signed document – a power of attorney, and can prove his/her own identity with an identity card or passport during enrolment. The representative shall present a copy of the identity card or passport of the applicant they represent.
11. An applicant accepts the terms and conditions of the admission procedure upon entering the admission process.

## § 6

1. If an examination is part of the admission procedure, a person with a disability may apply for reasonable adjustment of the format of the examination, according to the needs arising from the disability. For the application to be processed, the applicant has to submit a written request to the head of the Accessibility Centre at the University no later than three days before the closing date for submitting admission applications. In the case of failure to comply with these requirements, the application shall not be considered.
2. The method of adjustment is determined individually in consultation with the appointed committee or the chairperson of the examination panel on the basis of an interview and current documentation provided to confirm the specificity of the disability.
3. The decision on how to adjust the examination format is made by the chairperson of the committee or examination panel in consultation with the head of the Accessibility Centre.

**Section IV**  
**Additional provisions**

§ 7

1. The Director may change, in the course of the admission process, the number of places set for the competition to adapt it to the applicable law and the current needs of admission, including obligations arising from research projects and grants.
2. For the programmes conducted on the basis of agreements between the University and other entities, the provisions of this Resolution shall apply *mutatis mutandis*, taking into account the provisions arising from the agreements in question.
3. In the case of an applicant financed by additional funds from external or internal sources, which require enrolment, the applicant, may be admitted to the School in a special competition procedure in compliance with the procedure determined by the Director, taking into account the provisions arising from the regulations and contracts related to the method of financing.
4. The transfer of a doctoral student from another doctoral school shall be possible only if funding is ensured for the period of education programme and shall be effected by means of a admission competition procedure announced by the Director and conducted in compliance with the rules set out in the Annex to the Resolution. In a communication, the Director may specify additional conditions for the transfer, including requirements for the doctoral student and the competition schedule.

§ 8

Issues related to admission but not covered in the Resolution shall be resolved by the Director.

**Section V**  
**Final Provision**

§ 9

The Resolution comes into force on the day of its adoption.

## **Admission terms and conditions at the Doctoral School of Exact and Natural Sciences for 2024/2025**

### **A. Education programme in *Astronomy* in the discipline of astronomy with English as a medium of instruction**

#### **Application requirements**

The *Astronomy* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree in exact and natural sciences or in engineering and technology.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme, or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

#### **Admission criteria**

The order of applicants on the ranking list is determined by their final numerical admission score, which is based on:

1. the grade average attained by the applicant in the first-cycle programme and the grades attained in the second-cycle programme excluding the final year of studies, calculated in compliance with the regulations of the university conducting the studies; in the case of the long-cycle programme, the grade average is calculated out of the grades attained for the first four years of studies according to the formula (0-50 points):

$$W_1 = \left( \frac{S_1}{S_{1Max}} \right) * 30 + \left( \frac{S_2}{S_{2Max}} \right) * 20$$

where:

$W_1$  is the grade point average,

$S_1$  is the grade average of the first-cycle programme,

$S_{1Max}$  is the highest (the best) grade in the grading scale valid at the applicant's home university,

$S_2$  is the grade average of the second-cycle programme, without the grades attained in the final year,

$S_{2Max}$  is the highest (the best) grade in the grading scale at the applicant's home university.

For applicants who have completed a long-cycle study programme, the grade average for the first four years of these studies  $S$ , is applied to the above formula, substituting it for each of the elements  $S_1$  and  $S_2$ :  $S_1 = S_2 = S$ .

In the case of a grading system with decreasing grades for better performance, where the lowest grade is  $S^*$  and the highest grade is  $S^{**}$ , in the above formula, the corresponding average grade  $S_i$  ( $i = 1, 2$ ) is substituted by the difference  $S^* - S_i$ , while  $S_{Max}$  is substituted by  $S^* - S^{**}$ .

2. A result of the admission interview  $W_2$  expressed in points (0 – 50).

### **Admission procedure**

Admission procedure consists of two stages.

Stage 1.

In the first stage, the committee awards points for the grade averages for the first-cycle programme  $S_1$  and the Master's degree programme  $S_2$  according to the formula given in point 1. To be permitted to Stage 2, all applicants must have an average of grades for each degree programme  $S_1/S_{1Max}$  and  $S_2/S_{2Max}$  calculated according to the above formula, at a level above the minimum value of 0.70. If one of these averages is lower, the applicant is not admitted to the interview (Stage 2). Also, this means allocating 0 points for  $W_2$  ( $W_2 = 0$ ) when determining the ranking list.

Stage 2. Admission interview

Before the interview, members of the admission committee read the documents submitted by the applicant, in particular the curriculum vitae, information on the results of examinations during the studies and (if available) a copy or a summary of the master's thesis.

During the interview, the committee may ask an applicant questions about: the subjects studied during studies, in particular astronomy (astrophysics, radio astronomy, cosmology), the course of studies, previous achievements including the results obtained in their master's project, and the scientific work and research they plan to carry out at the Doctoral School.

To evaluate all the answers, each member of the committee by the secret ballot assigns the applicant a score ranging from 0 to 50 points. The final score for the interview –  $W_2$  is the arithmetic average of the scores offered by the committee members.

The interview may be held in Polish or English.



### **Calculating the admission results**

A final result of the admission process  $W$  is a number calculated for all the applicants according to the formula:

$$W = W_1 + W_2$$

where:

$W_1$  is a calculated grade point average,

$W_2$  is a result of an admission interview.

The applicants with the highest  $W$ -scores, for whom the admission score is of 70.00 points and above are considered for admission to the *Astronomy* programme. Admission is determined by the position of the applicant on the ranking list taking into account the established number of places available for the programme.

## **B. Education programme in *Computer Science* in the discipline of computer science with English as a medium of instruction**

### **Application requirements**

The *Computer Science* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree in any subject (major).

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

### **Admission criteria**

Applicants are assessed by a committee during an interview. The interview consists of two separately assessed parts. In the first part, the outcomes of the studies, special achievements and general knowledge of the applicant are assessed (0-50 points), while in the other part, the master's thesis and research project proposal are assessed (0-50 points).

### **Admission procedure**

In the first part of the interview, the committee assesses the applicant's grade point average and the achievements listed in the CV. This part also verifies and assesses the applicant's knowledge in the field which does not go beyond the first-cycle programme and second-cycle programme in computer science.

In the other part, the master's thesis, the research proposal and the applicant's preparation to conduct research are assessed. In this part, the applicant's factual knowledge in the proposed research area is also verified.

### **Calculating admission results**

Final result of the admission procedure is calculated according to the formula:

$$W = A + B$$

where:

*A* is a score of 0 –50 points for the 1st part of the interview,

*B* is the score of 0 –50 points for the 2nd part of the interview.

### **C. Education programme in *Mathematics* in the discipline of mathematics with English as a medium of instruction**

#### **Application requirements**

The *Mathematics* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree in any subject (major).

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this School programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

#### **Admission criteria**

Applicants are assessed by a committee during an interview. The interview consists of two separately assessed parts. In the first part, the outcomes of the studies, special achievements and general knowledge of the applicant are assessed (0-50 points), while in the other part, the master's thesis and research project proposal are assessed (0-50 points).

#### **Admission procedure**

In the first part of the interview, the committee assesses the applicant's grade point average and the achievements listed in the CV. This part also verifies and assesses the applicant's knowledge in the field which does not go beyond the first-cycle programme and second-cycle programme in mathematics.

In the other part, the master's thesis, the research proposal and the applicant's preparation to conduct research are assessed. In this part, the applicant's factual knowledge in the proposed research area is also verified.

#### **Calculating admission results**

Final result of the admission procedure is calculated according the formula:

$$W = A + B$$

where:

*A* is a score of 0 –50 points for the 1st part of the interview,

*B* is the score of 0 –50 points for the 2nd part of the interview.

## **D. Education Programme in *Biochemistry, Biophysics, Molecular Biology and Biotechnology* in the discipline of biological sciences with Polish as a medium of instruction**

### **Application requirements**

The *Biochemistry, Biophysics, Molecular Biology and Biotechnology* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree received in the field of exact and natural sciences, engineering and technology, agriculture, or medical and health sciences.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this School programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

This programme can also be pursued as an individual programme conducted in English, upon the consent of the programme coordinator and the proposed academic advisor.

### **Admission criteria**

The order of the applicants on the ranking list is determined by their final admission score based on the result of the interview evaluated on a scale of 0 – 100 points.

### **Admission procedure**

The interview can be conducted in English if the applicant indicates English as an interview language during the application process. The interview addresses:

1. the research conducted for the master thesis's purposes,
2. the applicant's scientific interests and research proposal within education at the Doctoral School,
3. scientific problems in biochemistry, biophysics, molecular biology or biotechnology related to the subject of the planned dissertation.

The ability to solve scientific problems on the basis of the analysis of a scientific text, which is available in advance, is also assessed.

## **E. Education programme in *Biomedical sciences* in the discipline of biological sciences with English as a medium of instruction**

### **Application requirements**

The *Biomedical sciences* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree in any subject (major).

Exceptionally and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

### **Admission criteria**

The applicants are evaluated by the committee in two stages.

In the first stage, the applicant's grade point average of the studies and special achievements (e.g. internships, publications, participation in research, (summer) schools, conferences, scholarships and awards granted) are evaluated on the basis of the submitted curriculum vitae and other documents (0-30 points).

In the second stage, an applicant participates in an interview conducted in English (0-70 points).

### **Admission procedure**

Candidates may apply for the programme which involves the implementation of research topics at one of the three institutions: the Malopolska Centre of Biotechnology (MCB) or the Jagiellonian Centre for Experimental Therapeutics (JCET) or the National Synchrotron Radiation Centre Solaris.

The admission procedure consists of two stages.

## Stage 1

In the first stage, the committee analyses the documents submitted by the applicant and assesses them by offering points from 0 to 30. The committee draws up for each institution – MCB, JCET and Solaris – a separate pre-ranking list of applicants for the programme. From each pre-ranking list, a maximum of twice the number of applicants in relation to the number of research topics available in a given year for MCB, JCET and Solaris, respectively, shall be eligible for the second stage according to the order on the pre-ranking list of each institution; the order is established on the basis of the number of points.

The cut-off thresholds in the pre-ranking lists are applied to determine twice the number of applicants in relation to the number of research topics available in a given year for each institution separately. Transfer of applicants between pre-ranking lists is not considered regardless of the number of points the applicant has received.

The minimum score to be eligible for the second stage of the admission process is 20 points. Applicants who are not eligible for the second stage, either because they did not obtain the required minimum of 20 points in the first stage or because they are below the cut-off, are granted 0 points for the second stage.

## Stage 2

In the second stage an interview is conducted. The interview consists of:

1. a 5-minute talk in which an applicant presents the thesis project and/or other research work in which they took part;

In this part, the applicant's presentation skills, English language skills and preparation for conducting research are assessed (total number of points 0 – 20).

2. a 15-minute discussion conducted by committee members; the discussion concerns: the applicant's talk, the research paper chosen by the applicant from one to three papers provided 1 hour and 30 minutes before the interview, a range of research topics selected by the applicant during the admission process, other scientific problems.

In this part the committee assesses: the applicant's general and specialized knowledge, problem-solving skills, the ability to work in a research team, preparation to carry out research into the research problem of the applicant's choice (total number of points 0 – 50).

## **Calculating admission score**

The admissions committee draws up ranking lists of applicants for the programme in *Biomedical Sciences* at the Doctoral School of Exact and Natural Sciences separately for the Malopolska Centre of Biotechnology (MCB), the Jagiellonian Centre for Experimental Therapeutics (JCET), and the National Synchrotron Radiation Centre Solaris.

The order of applicants on each ranking list is determined by their final admission results, which is the sum of the points received in the first stage and the second stage of the admission procedure.

The cut-offs in the ranking lists for a given year and for a given institution are separate and independently prepared for MCB, JCET and Solaris. 75 points is the minimum admission score for the programme. The number of applicants ultimately admitted to the programme from the ranking lists of MCB, JCET, and Solaris corresponds to the number of research topics available in a given year for each of these institutions, respectively.

## **F. Education programme in *Chemistry* in the discipline chemical sciences with Polish as a medium of instruction**

### **Application requirements**

The *Chemistry* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree received in the field of exact and natural sciences, engineering and technology, agriculture, or medical and health sciences.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

This programme can also be pursued as an individual programme conducted in English, upon the consent of the programme coordinator and the proposed academic advisor.

### **Admission criteria**

The order of applicants on the ranking list is determined by their final admission result based on:

1. the average grade of the studies converted into points (grade point average) calculated according to the formula:

$$W_{sr} = \left( 3 \frac{S_r - m}{M - m} \right) + 2$$

where:

$W_{sr}$  is the average of the grades attained for a long-cycle programme converted into points, or the mathematical average of the averages of the grades attained for the first-cycle programme and the second-cycle programme,



$S_r$  is the average of the grades, calculated according to the rules valid at the awarding institution,

$M$  is the maximum (the best) grade on the scale valid at the applicant's home university,  
 $m$  is the minimum (the lowest) grade on the scale valid at the applicant's home university.

2. the result of the interview, which is graded on a scale of 2.00-5.00 points, with the 0.50 point increment.

### Admission procedure

The admission procedure consists of two stages.

In the first stage, the average of the grades is converted into points according to the formula presented above. The applicants with the highest average marks, which are by 40% higher than the admission threshold, are invited to the second stage the procedure. The committee may invite a bigger number of applicants than that resulting from using the formula. Other applicants are placed in the ranking list according to the number of points received in the first stage.

In the second stage, an applicant participates in an interview. The interview may be held in Polish and/or English. During the first part of the interview, the applicant is asked questions that are related to their studies and achievements, the subject and results of the master's thesis, as well as the work and research that they plan to carry out at the Doctoral School.

The first part of the interview is not assessed. The second part of the interview includes questions in chemistry, in accordance with the list of topics published for a given academic year, as indicated in the communication referred to in § 5(1)(4).

### Calculating admission score

The final result of the admission procedure  $W$  is determined for all the applicants according to the formula:

$$W = \frac{30 W_{sr} + 70 W_{RK}}{5}$$

where:

$W_{sr}$  is the average grade of the studies,

$W_{RK}$  is the interview score

(if an applicant receives 2.00 points for the interview,  $W_{RK} = 0$  is inserted into the formula).

## **G. Education programme in *Biophysics* in the discipline of physical sciences with Polish as a medium of instruction**

### **Application requirements**

The *Biophysics* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree received in the field of exact and natural sciences.

Applicants who hold a Master's degree, a Master of Engineering or an equivalent degree in a field other than exact and natural sciences may also apply for admission to the programme. In such cases, the applicant submits 1. an opinion from a senior academic staff member (a staff member with a postdoctoral degree) confirming the applicant's achievements and competencies necessary to pursue education within the *Biophysics* programme, and 2. other documents confirming these achievements, e.g. participation in projects, conferences or courses.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

This programme can also be pursued as an individual programme conducted in English, upon the consent of the programme coordinator and the proposed academic advisor.

### **Admission criteria**

The order of applicants on the ranking is determined by their final numerical admission scores on the basis of 1. the average grade of their first-cycle programme and second-cycle programme or long-cycle programmes (0–50 points), 2. other achievements, such as internships, publications, participation in research projects, schools, conferences, scholarships and awards assessed on the basis of the submitted curriculum vitae (0-20 points) and 3. the result of the interview (0-30 points).

In special cases the decision is made by the admission committee.

### **Admission procedure**

The grade average from the applicant's studies is calculated according to the formula:

$$S = \left[ \left( \frac{Sb}{Mb} \right) * 30 + \left( \frac{Sm}{Mm} \right) * 20 \right]$$

where:

**Sb** is the grade average obtained in the first degree programme calculated according to the rules valid at the awarding institution,

**Mb** is the best grade possible,

**Sm** is the grade average obtained in the first year of the second-cycle programme, calculated according to the rules valid at the awarding institution,

**Mm** is the maximum (the best) grade on the scale valid at the applicant's home university; for the long-cycle (master) programme the grade **Sb = Sm** should be taken as the average for the completed years of studies.

In the case of a grading scale different than the one in force at the Jagiellonian University, the admission committee decides on how to calculate the S.

The applicant's academic achievements are assessed on the basis of the submitted curriculum vitae and other documents, on a scale from 0 to 20 points offered by each member of the committee; the final score here is the average of these marks.

The interview is designed to test the applicant's suitability for the education at the Doctoral School. The interview is conducted within the following areas:

1. the applicant's thesis and academic achievements (0-10 points)
2. the applicant's scientific and research interests and plans (0-10 points)
3. important problems and discoveries in physics directly related to the recent and planned research of the applicant (0-10 points)

Each point (1– 3) is assessed separately on the scale (0–10 points) and the final interview score is the arithmetic average of the scores offered by the committee members who have taken part in the interview.

Applicants who did not take part in the interview are awarded 0 (zero) points.

Applicants who received fewer than 35 points as the grade average of their studies are not admitted to the interview.

### **Calculating admission score**

The final admission result  $W$  is a number determined for all the applicants as the sum of the points obtained in the entire admission procedure. A ranking list of the applicants is created on the basis of the scores obtained during the admission procedure. Ultimately, admission is determined by the position on the ranking list taking into account the limit of places available in the programme.

Only those candidates whose final admission result is 67.00 points minimum and whose score for the grade point average is 35.00 points minimum may be admitted to the programme in *Biophysics* in the discipline of physical sciences.

## **H. Education programme in *Physics* in the discipline of physical sciences with English as a medium of instruction**

### **Application requirements**

The *Physics* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree received in the field of exact and natural sciences or in engineering and technology.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

### **Admission criteria**

The order of applicants on the ranking is determined by their final admission scores on the basis of 1. the grade average of their first-cycle programme and second-cycle programme, or the long-cycle programme (0–50 points), 2. other achievements, such as internships, publications, participation in research projects, schools (e.g. summer schools), conferences, scholarships or awards; they are assessed on the basis of the submitted curriculum vitae (0-20 points), and 3. the result of the interview (0-30 points).

In special cases, the decision is made by the admission committee.

### **Admission procedure**

The admission procedure consists of two stages.

In the first stage, the *S* score (0-50 points) is calculated and the applicant's previous achievements (0-10 points) are scored according to the rules described below.

Applicants who, in the first stage, received the highest number of points, which is by 40% higher than the established number of places available for the programme (an admission limit), are admitted to the second stage of the procedure. However, the committee may invite more applicants to the second stage. Other applicants are placed in the ranking list according to the number of points they received in the first stage.

In the second stage, an interview is conducted. The interview may be held in Polish and/or English.

The average of the grades from the applicant's studies (grade point average) is calculated according to the formula:

$$S = \left[ \left( \frac{Sb}{Mb} \right) * 30 + \left( \frac{Sm}{Mm} \right) * 20 \right]$$

where:

**Sb** is the grade average obtained in the first degree programme calculated according to the rules valid at the awarding institution,

**Mb** is the best grade possible,

**Sm** is the grade average obtained in the first year of the second-cycle programme, calculated according to the rules valid at the awarding institution,

**Mm** is the maximum (the best) grade on the scale valid at the applicant's home university; for the long-cycle programme the grade **Sb = Sm** should be taken as the average for the completed years of studies.

In the case of a grading scale different than the one in force at the Jagiellonian University, the admission committee decides on how to calculate the S.

The applicant's academic achievements are assessed on the basis of the submitted curriculum vitae and other documents, on a scale from 0 to 10 points offered by each member of the committee; the final score is the average of these marks.

The interview is designed to test the applicant's suitability for the education at the Doctoral School and is conducted within the following areas:

1. the applicant's thesis and academic achievements (0-10 points)
2. the applicant's scientific and research interests and plans (0-10 points)
3. important problems in physics (0-20 points).

Each point (1– 3) is assessed separately according to the indicated scale. The final interview score is the arithmetic average of the scores offered by the committee members who have participated in the interview.

Applicants who did not take part in the interview receive 0 (zero) points for this stage of the admission procedure.

### **Calculating admission score**

The final admission score **W** is a number determined for all the applicants as the sum of the points received in the entire admission procedure.

Only those applicants whose final admission result is 60.00 points minimum will be admitted to the programme.

## **I. Education programme in *Earth and environmental sciences* in the discipline of Earth and related environmental sciences with Polish as a medium of instruction**

### **Application requirements**

The *Earth and environmental sciences* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree received in the field of exact and natural sciences.

Applicants who hold a Master's degree, a Master of Engineering or an equivalent degree in a field other than exact and natural sciences may also apply for admission to the programme. In such cases, the applicant submits 1. an opinion from a senior academic staff member (a staff member with a postdoctoral degree) confirming the applicant's achievements and competencies necessary to pursue education in the programme of Earth and environmental sciences, and 2. other documents confirming these achievements, e.g. participation in projects, conferences or courses.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

This programme can also be pursued as an individual programme conducted in English, upon the consent of the programme coordinator and the proposed academic advisor.

### **Admission criteria**

The order of the applicants on the ranking list is determined by the result of the interview, which is scored from 0 to 100 points. The interview is focused on the applicant's research interests, factual knowledge of the planned research area and their motivation to conduct research and to study at the Doctoral School.

A minimum score of 51.00 points is required for the admission to the programme.

### **Admission procedure**

The outcome of the interview is the number of points awarded to the applicant (0 – 100 points). The interview may be conducted by two committees, separately for physical geography and for geological sciences. A separate ranking list is established for each of these two areas; applicants

who receive a minimum of 51.00 points as a result of the interview are placed on the ranking list.

### **Calculating admission score**

The order of the applicants on the ranking list is determined by the result of the interview. On the basis of the ranking lists prepared separately for physical geography and for geological sciences and the number of places available for the programme, a list of applicants admitted to the programme is drawn up. The applicants who received a minimum of 51.00 points and are on the ranking lists are placed on the two reserve lists, separately for physical geography and for geological sciences.



## **J. Education programme in *Biology* in the discipline of biological sciences with Polish as a medium of instruction**

### **Application requirements**

The *Biology* Programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree received in the field of exact and natural sciences.

Applicants who hold a Master's degree, a Master of Engineering or an equivalent degree in a field other than exact and natural sciences may also apply for admission to the programme. In such cases, the applicant submits 1. an opinion from a senior academic staff member (a staff member with a postdoctoral degree) confirming the applicant's achievements and competencies necessary to pursue education in the programme in *Biology*, and 2. other documents confirming these achievements, e.g. participation in a project, conferences or courses.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act are met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

### **Admission criteria**

The order of applicants on the ranking list is determined by their final admission result based on sum of the scores received during the following three stage of the procedure:

1. Oral presentation of the research proposal (0 –30 points)
2. Interview during which an applicant's knowledge in the area of the research proposal is assessed (0 –50 points)
3. Examination in English (0 –20 points)

### **Admission procedure**

Separate ranking lists of applicants applying for the *Biology* programme shall be created for: 1. Institute of Zoology and Biomedical Research, 2. Institute of Botany, and 3. Institute of Environmental Sciences.

The research proposal thematically related to the intended PhD project shall include name and surname, topic, brief introduction, research objectives, methodology, and expected results.

The project description is a maximum of 3 – 4 A4 pages.

The applicant is asked to deliver a 5-minute oral presentation of the submitted research project; next the applicant is interviewed on the knowledge that covers the research area of their project as well as the related topics. Both the presentation and the interview are conducted in Polish.

The examination in English is conducted by an examination panel. The applicant's language skills are assessed according to four criteria:

- vocabulary and pronunciation
- grammar
- fluency
- interaction

An applicant can receive 0 – 5 points in each of these four categories.

### **Calculating admission score**

The final admission result is the sum of the points from the three stages defined in the admission criteria.

## **K. Education programme in *Biology* in the discipline of biological sciences with English as a medium of instruction**

### **Application requirements**

The *Biology* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree received in the field of exact and natural sciences.

Applicants who hold a Master's degree, a Master of Engineering or an equivalent degree in a field other than exact and natural sciences may also apply for admission to the programme. In such cases, the applicant submits 1. an opinion from a senior academic staff member (a staff member with a postdoctoral degree) confirming the applicant's achievements and competencies necessary to pursue education within the Biophysics programme, and 2. other documents confirming these achievements, e.g. participation in a project, conferences, courses.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

### **Admission criteria**

The order of applicants on the ranking list is determined by their final admission result based on their interview score (0-100 points).

### **Admission procedure**

Applicants for the programme in *Biology* indicate the research topics of their interest while registering in the University system. Research topics are posted on the website of the Doctoral School minimum two weeks before the date of the admission launch.

The interview is conducted in English. During the interview, the applicant delivers a short (oral) presentation on the research plans for the doctoral project, together with the explanation of the choice of the research subject. Next, the applicant answers questions from the admissions committee regarding their doctoral research proposal and the related issues. In the final part of the interview, the applicant is given a summary of the paper, which they are asked to read and discuss. The knowledge of the planned research area and the ability to communicate in English are assessed.

The applicant's admission score from the entire admission procedure is expressed in the number of points received during the interview.

**Calculating admission score**

The final admission result  $W$  is a number determined for all the applicants as the number of points received during the interview.

## **L. Education programme in *Technical Computer Science* in the discipline of information and communication technology with English as a medium of instruction**

### **Application requirements**

The *Technical Computer Science* programme at the Doctoral School of Exact and Natural Sciences welcomes applicants holding a Master's degree, a Master of Engineering degree or an equivalent degree received in any subject (major).

Applicants who hold a Master's degree, a Master of Engineering or an equivalent degree in a field other than exact and natural sciences may also apply for admission to the programme. In such cases, the applicant submits 1. an opinion from a senior academic staff member (a staff member with a postdoctoral degree) confirming the applicant's achievements and competencies necessary to pursue education at the *Technical Computer Science* programme, and 2. other documents confirming these achievements, e.g. participation in projects, conferences, courses.

In exceptional cases and taking into account scientific achievements of high quality, a person referred to in Article 186(2) of the Act, who does not hold a Master's degree and who is a graduate of the first-cycle study programme or a student who has completed the third year of the long-cycle study programme but who has a student status in a field from among those indicated above, or who has completed such studies, may also apply for admission to this programme.

In order to verify whether the condition referred to in Article 186(2) of the Act is met, the applicant is required to submit two opinions confirming high-quality research and the degree of progress to date of their research. These opinions are issued by scientific advisors holding a postdoctoral degree, or who are employees of a foreign university or scientific institution and who have outstanding achievements related to the programme in question.

The Director, in consultation with the chairperson of the admission committee, shall decide whether an applicant meets the condition referred to in Article 186(2) of the Act.

### **Admission criteria**

Applicants are assessed by the admission committee during an interview. The interview consists of two separately assessed parts. In the first part, the results of the studies, achievements and general knowledge are assessed (0-50 points), while in the second part a master's thesis and research proposal are evaluated (0-50 points).

### **Admission procedure**

In the first part of the interview, the committee evaluates the applicant's grade point average of their studies and the achievements listed in the CV. This part also assesses the applicant's knowledge in the field that does not go beyond the first-cycle programme and second-cycle programme in computer science.

In the other part, the committee assesses the applicant's master thesis, their research proposal and the preparation to conduct research. In this part, the applicant's knowledge in the proposed research area is also checked.

### **Calculating admission score**

Final result of the admission procedure is calculated according to the formula:

$$W = A + B$$

where:

*A* is a score of 0 –50 points for the 1st part of the interview,

*B* is the score of 0 –50 points for the 2nd part of the interview.

### **Calculating admission result**

The final admission result *W* is a number determined for all the applicants as the number of points received during the interview.

Applicants with the highest *W* values are admitted to the programme in *Information technology*.