

**Resolution No 61/X/2022  
of the Senate of the Jagiellonian University  
of 26 October 2022**

**concerning: the terms and conditions for admission to the Doctoral School of Exact and Natural Sciences at the Jagiellonian University in the academic year 2023/2024**

Acting pursuant to Art. 200 para. 2 of the Law on Higher Education and Science of July 20, 2018 (i.e.: Journal of Laws 2022 item 574, as amended), hereinafter referred to as the Act, the following shall be determined:

**Section I  
General Provisions**

§ 1

1. This resolution specifies in particular:
  - 1) the terms and conditions for admission to the Doctoral School of Exact and Natural Sciences at the Jagiellonian University;
  - 2) the detailed conditions and admission procedure.
2. In this resolution, the terms used shall be understood as follows:
  - 1) Rector – Rector of the Jagiellonian University;
  - 2) school – the Doctoral School of Exact and Natural Sciences at the Jagiellonian University;
  - 3) director – a person acting as the director of the school;
  - 4) programme – an education programme implemented at the school;
  - 5) committee – admission committee;
  - 6) application round – a competition procedure conducted for the purpose of admission to the school for a specific programme.
  - 7) system – Online Application System.

§ 2

Admission to a given programme at the school shall be carried out in the form of a competition.

**Section II  
Rules for the Organization of Admission Committees**

§ 3

1. In order to carry out admission to a programme, the director appoints a committee consisting of employees of the University. Committees are appointed at the request of the co-ordinators of the education programmes.
2. Based on the recommendation of a co-ordinator of a programme, the director appoints the chairman, deputy chairman, and secretary of the committee.
3. At least half of the members of the committee are employees with an academic title or degree of doctor habilitated, or are employed as university professors who have declared their affiliation to the discipline which is taught at the school.

4. In duly justified cases, the committee may include employees of other universities or other entities with which the University has signed agreements or contracts.
5. In justified cases, the director may appoint more than one committee for a programme under the rules laid down in paragraphs 1-4.
6. The committee is appointed no later than one week before the commencement of the first application round for a given academic year. The committee is appointed for the duration of admission for the 2023/2024 academic year.
7. Participation in the work of the committee shall be remunerated in the amount and on the terms specified in the Rector's order.
8. If such circumstances occur which prevent a member of the committee from participating directly in its work, the director shall dismiss them and appoint a new member in accordance with the principles set out in paragraphs 1-4.
9. A member of a committee shall inform the chairman of the committee, or if it is the chairman, the deputy chairman, of any circumstances that might affect his/her impartiality when assessing the candidates.
10. In the situations mentioned in paragraph 9, a commission member is excluded from the procedure when assessing selected candidates. In the case of exclusion of the commission chairman, further work of the commission shall be chaired by the deputy chairman. The exclusion of a committee member shall be recorded in the minutes of the committee meeting. If more than 40% of committee members are excluded, the provisions of paragraph 8 shall apply accordingly.
11. The director may, taking into account the needs arising from the detailed conditions and admission procedure, appoint an examination team or teams by specifying the scope and modus operandi of the teams. The chairman of the examination team is a member of the committee appointed by the director on the recommendation of the programme coordinator. The provisions of paragraphs 8-10 shall be applied accordingly.

#### § 4

1. The committee performs activities related to admission, in particular:
  - 1) conducts exams or interviews (subject § 3 para. 11);
  - 2) determines the results of qualification of candidates participating in the admission, in accordance with the conditions and admission procedure as well as internal legal acts in force at the University;
  - 3) decides on qualifying for acceptance, or placement on the reserve list, or refusal of admission, including formulating justifications for such decision;
  - 4) examines the applications and requests submitted in the enrolment procedure, as well as gives opinions on requests for reconsideration.
2. In duly justified cases, the committee may decide to conduct the examination by means of remote communication.
3. The committee has the right to determine the minimum qualification result required for admission, or to be placed on the reserve list, but not later than at its first meeting during which it approves and signs the ranking list for a given programme. Once established, the minimum qualification result required for admission shall apply to all application rounds conducted for this programme in a given academic year. For all candidates

- with lower score, admission is refused due to insufficient amount of obtained points.
4. The committee deliberates and makes decisions by an absolute majority of votes in the presence of at least half of its members. In the event of an equal number of votes, the chairman's vote is decisive.
  5. The committee documents the course of each part of the admission procedure by preparing appropriate minutes, which are signed by all committee members participating in the given action of the procedure. In the case of parts of the admission process that take place via means of distance communication, documents, including minutes, may be accepted by members in electronic form. Relevant printouts of the documents, along with confirmations of content acceptance, shall be included in the documentation of the admission process.
  6. Up to 14 days after determining qualifications results of the candidates, the chairman of the committee shall submit to the director the minutes of the admission process, signed by all members of the committee participating in the meeting, including separately a list of candidates recommended for admission, a reserve list and a list of persons not recommended for admission.
  7. The minutes are archived by the school in the documentation of the admission process.
  8. On the basis of the protocol referred to in paragraph. 6, the director approves the list of persons admitted to the school and issues, on the basis of the Rector's authorization, decisions on refusing admission to the school.
  9. A decision on refusal of admission to the school may be requested for a reconsideration. The request shall be submitted to the Rector within 14 days of the decision being delivered. An appeal may be based on a breach of the terms and conditions for admission which the candidate believes has occurred.

### **Section III Rules of Admission**

#### § 5

1. At least two weeks before the application round begins, the director shall determine in an announcement posted on the school's website:
  - 1) detailed rules of organization and admission schedule,
  - 2) limit of places available within a given application round,
  - 3) list and mode of submitting the required documents, in particular the requirement for translations, apostilles or legalisation for documents issued abroad and the procedure for waiving this requirement,
  - 4) where justified, a list of research topics.
2. The admission process considers candidates who have completed the required activities in a timely manner in accordance with the school's internal procedures.
3. Candidates' qualification results in a given application round are expressed by a number from 0 (zero) to 100 (hundred) with an accuracy of two decimal places, and are placed on the ranking list in a decreasing order.
4. The basis for the determination of the qualification result shall be the detailed conditions and admission procedure specified in the appendix to this resolution.

5. The lists of candidates qualified for admission are determined on the basis of the number of places and the qualification results, while respecting the minimum score qualification required to be recommended for admission or to be placed on the reserve list as referred to in § 4 paragraph 3.
6. An application round may be conducted electronically via the system (Online Application System - hereinafter referred to as the system). In such case:
  - 1) the detailed terms and conditions of organisation and the admission schedule as well as the mode of submitting the required documents are determined in consultation with the head of the Admissions Office prior to the announcement of the application round on the school's website;
  - 2) candidates are required to set up one individual account in the system and fill in the electronic forms in which they provide the required personal data and contact details;
  - 3) by creating an account in the system, a candidate acknowledges that he/she has read and understood the information on the processing of their personal data;
  - 4) information on the admission process is provided to candidates via the system or the school's website. Candidates are required to read the information sent via the system and posted on the school's website on an ongoing basis, and are responsible for the consequences of failure to do so;
  - 5) submission of application is made by filling in an electronic form corresponding to the respective application round conducted in the system;
  - 6) only candidates who fulfill all the required conditions by the dates specified in the schedule, in particular provide the school with a complete set of required documents within deadlines and in a manner specified by the school, are considered in the application round. If the documents are sent by regular mail, the date of their receipt by the school shall decide if the deadline was met. Providing data or providing documents in the past as part of admission to the University or studying or learning at the University at present or in the past does not release the candidate from the obligation to provide the data or provide the documents required as part of the current (the latest) application round;
  - 7) the committee informs the Admissions Office of the decision taken on each application submitted successfully in the system. Ranking lists are published in the system. Qualification results and information about admission shall be published in the system;
  - 8) information on qualification for admission and the place and date of enrolment in the list of doctoral students (hereinafter referred to as the enrolment) is provided to the candidates via the system. Once candidates receive notification in the system on being qualified for admission, they are obliged to enroll within the deadline specified in the notification. Failure to complete the enrolment procedure within the appointed dates is equal to their resignation and results in issuing a decision on refusal of admission. In duly justified cases, the director may set a new, individual date for enrolment of a given candidate;
  - 9) the condition for the enrolment procedure to be performed is for the person qualified for admission to meet conditions described in Art. 200 para. 1 of the Act , and for the University staff member performing the enrolment procedure to verify that the submitted documents are complete and that the data in the documents match the data on the application printed from the system. Enrolment is performed through the established procedure of personal data transfer from the system to the Electronic University System for Study Support of the Jagiellonian University (taking into account paragraph 11);
  - 10) if any discrepancies in the data are noticed during the enrolment procedure, university staff member performing the enrolment to the programme passes the documents to the director who, depending on the scale and nature of the discovered discrepancies, may

change the decision on qualifying the candidate for admission made on the basis of the false data, which results in denial of completion of the enrolment procedure;

- 11) with the consent of the Director, the enrolment may be completed by correspondence via mail or by e-mail . The basis for determining whether the deadline for entry has been met shall be the date on which all the required documents are received by the designated unit.
7. In cases where an application round is conducted outside the system, it shall be proceeded in accordance with the procedure specified by the director in an announcement posted on the school's website.
8. A person qualified for admission may only enroll in one doctoral school and shall, at the time of enrolment, submit a declaration that she/he is not a doctoral student at any other doctoral school. It is not permitted to re-enter the school, if, on the day of enrolment, the candidate already has the status of a doctoral student at this school.
9. In the case of the programmes in which doctoral students are exposed to harmful, noxious or hazardous factors, the candidates shall, at the time of enrolment, be referred for a medical examination by an occupational medicine physician. The candidates are required to provide a medical certificate stating that there are no contraindications to take up education, within the deadline and to the unit designated by the director.
10. In activities related to the enrolment procedure, a person qualified for admission may be represented by a proxy who, when performing these activities, shall provide a signed power of attorney and present his/her identity card or passport. When registering for the programme, the proxy is obliged to present a copy of the ID card or passport of the person qualified for admission.
11. Upon joining the admission procedure, the candidates accept its terms.

## § 6

1. If the detailed conditions and admission procedure require an examination, a person with disabilities may apply to adapt the form of the examination to his/her needs resulting from the disability. For this purpose, no later than three days before the end of the relevant deadline for submitting applications for a given application round, the candidate shall submit a written request to the Disabled Persons Department. If the procedure is not followed, the application shall not be considered.
2. The method of adapting the form of the exam is determined individually in consultation with the appointed examination committee, based on an interview and the up-to-date documentation provided confirming the specificity of the disability.
3. The decision on the method of the adaptation the of the examination form is made by the committee chairman in consultation with the head of the Department for Disabled People.

## **Section IV** **Specific rules**

## § 7

1. Over the course of an application round, the director is authorized to change the limits of places determined for a given application round in order to adjust them to the applicable provisions of law and to the current needs of the admission procedure, including necessary changes arising from obligations related to the implementation of research projects and grants.

2. The provisions of this Resolution shall apply accordingly to the education programmes conducted at the school on the basis of agreements signed between the University and other entities, taking into consideration provisions arising from these agreements.
3. The candidates for places at the school financed with additional funds from external or internal sources, the conditions of which require entry on the list of doctoral students, may be admitted to the school under a special competition procedure, in accordance with the procedure specified by the director, taking into account the provisions resulting from the regulations and agreements related to the method of financing.

§ 8

In matters relating to recruitment not regulated by this resolution, the director decides.

**Section V**  
**Final provisions**

§ 9

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

## The detailed conditions and admission procedure to the Doctoral School of Exact and Natural Sciences at the Jagiellonian University in the academic year 2023/2024:

### A. Education programme named *Astronomy* in the discipline of Astronomy, conducted in English

#### Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Astronomy* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

#### Qualification criteria

Candidates are placed on the ranking list in order determined by their final result, calculated on the basis of:

1. candidate's grade average from the undergraduate (first-cycle) programme and from the graduate (second-cycle) programme, excluding the last year of studies, calculated in accordance with the regulation in power at the university of graduation (or candidate's grade average from the first 4 years on long-cycle graduate programme), calculated on the basis of the following formula (0–50 points):

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

where:

$I$  stands for the grade average described above, in points,

$S1$  stands for the grade average from undergraduate (first-cycle) programme,

$S1Max$  stands for the maximum (best) grade on the scale in power at the university of graduation,

$S2$  stands for the grade average from graduate (long-cycle) programme, excluding the last year of studies,

$S2Max$  stands for the maximum (best) grade on the scale in power at the university of graduation,

For candidates who have graduated from long-cycle graduate programmes, grade average from the first four years of their studies,  $S$ , is used in the calculation based on the formula above, using the following substitution of each  $S1$  and  $S2$  element:  $S1 = S2 = S$ .

For grading systems with descending grading scales, where  $S^*$  stand for the worst grade and  $S^{**}$  stands for the best grade, the respective grade average  $S_i$  ( $i = 1, 2$ ) is substituted by the difference  $S^* - S_i$ , and  $S_{Max}$  is substituted by the difference  $S^* - S^{**}$ .

2.  $W2$  interview result  $W2$  (0–50 points).

### **Admission procedure**

The admission procedure is divided into two stages.

During the first stage, the committee awards points for the grade averages from the undergraduate (first-cycle) programme  $S1$  and from the graduate (second-cycle) programme  $S2$ , in accordance with the formula outlined in the point 2.1 above. To be allowed to participate in the second stage of the procedure, candidates need to have earned, for each grade average calculated by the formula above, a result of  $S1/S1_{Max}$  and  $S2/S2_{Max}$  of at least 0.60. If even one of the grade averages is lower, the candidate cannot participate in the interview, and is awarded the ranking list result  $W2 = 0.00$ .

During the second stage, the candidate participates in an interview.

Before the interview begins, the committee reviews the documents submitted by the candidate, in particular their curriculum vitae, information about exam results from the course of their studies, and (if available) the copy or draft of the *Magister* thesis.

During the interview, a selected committee member asks questions about the course of studies, previous achievements, and about the subject and preliminary results of their *Magister* thesis, as well as about the academic work and research projects which the candidate would like to carry out while enrolled at the doctoral school. Committee members can ask additional questions, including questions related to the courses the candidate has taken during their university education.

Candidate's answers are assessed separately and secretly by all committee members, on a scale from 0 to 50 points. The final result of the interview  $W2$  is an arithmetic average of the grades awarded by all committee members.

The interview may be conducted in Polish or in English.

### **Final result calculation**

The final admission procedure result  $W$  is expressed as a number on a scale from 0 to 100 points, calculated for all candidates in accordance with the following formula:

$$W = W1 + W2$$

where

e:  $W1$  stands for the computed grade average,

$W2$  stands for the interview result.

Candidates who are awarded the highest  $W$  results will be qualified for admission to the Astronomy education programme, provided that their result is not lower than 67.00 points, while admission depends on the candidate's position on the ranking list and on the number of places available within the programme.



**B. Education programme named *Computer Science* in the discipline of *Computer Science*, conducted in English**

**Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Computer Science* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in any field.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

**Qualification criteria**

Candidates are assessed by the committee during the interview. The interview comprises two parts, assessed separately. In the first part of the interview, candidate is assessed on the results of their studies, their special achievements, and general knowledge (0-50 points). In the second part of the interview, candidate is assessed on their *Magister* thesis and planned research project (0-50 points).

**Admission procedure**

During the first part of the interview, the committee assesses the results of their studies and their achievements outlined in the curriculum vitae. This part also verifies and assesses the candidate's knowledge in the scope not exceeding the undergraduate and graduate programmes in the field of *Computer Science*.

During the second part of the interview, the committee assesses the *Magister* thesis, proposed research project, and candidate's readiness to conduct research. This part also verifies the candidate's knowledge and qualifications in the proposed area of research.

**Final result calculation**

The final admission procedure result  $W$  is expressed as a number on a scale from 0 to 100, calculated as follows:

$$W = A + B,$$

where:

$A$  stands for the result of the assessment of the first part of the interview, on a scale from 0 to 50, and

$B$  stands for the result of the assessment of the second part of the interview, on a scale from 0 to 50.

**C. Education programme named *Mathematics* in the discipline of Mathematics, conducted in English**

**Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Mathematics* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in any field.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

**Qualification criteria**

Candidates are assessed by the committee during the interview. The interview comprises two parts, assessed separately. In the first part of the interview, candidate is assessed on the results of their studies, their special achievements, and general knowledge (0-50 points). In the second part of the interview, candidate is assessed on their *Magister* thesis and planned research project (0-50 points).

**Admission procedure**

During the first part of the interview, the committee assesses the results of their studies and their achievements outlined in the curriculum vitae. This part also verifies and assesses candidate's knowledge in the scope not exceeding the undergraduate and graduate programmes in the field of Mathematics.

During the second part of the interview, the committee assesses the *Magister* thesis, proposed research project, and candidate's readiness to conduct research. This part also verifies the candidate's knowledge and qualifications in the proposed area of research.

**Final result calculation**

The final admission procedure result  $W$  is expressed as a number on a scale from 0 to 100, calculated as follows:

$$W = A + B,$$

where:

$A$  stands for the result of the assessment of the first part of the interview, on a scale from 0 to 50, and

$B$  stands for the result of assessment of the second part of the interview, on a scale from 0 to 50.

**D. Education programme named *Biochemistry, Biophysics, Molecular Biology, and Biotechnology* in the discipline of Biological Sciences, conducted in Polish**

**Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Biochemistry, Biophysics, Molecular Biology, and Biotechnology* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of natural and exact sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

Within the framework of the current programme, it is possible to pursue education in English, based on an individual study programme, with the consent of the programme co-ordinator and the proposed academic supervisor.

**Qualification criteria**

The order of the candidates on the ranking list will be determined by their final numerical qualification score determined on the basis of the result of the interview evaluated on a scale of 0 - 100 points.

**Admission procedure**

The interview may be conducted in English if the candidate indicates such a language of the interview when submitting the application.

The interview will address:

- 1) the research conducted for the purpose of the *Magister* thesis;
- 2) the candidate's academic interests and research plans within the course of education;
- 3) scientific issues in the fields of biochemistry, biophysics, molecular biology or biotechnology related to the subject of the planned doctoral thesis.

The ability to solve scientific problems based on the analysis of the scientific text provided in advance will also be assessed.

## **E. Education programme named *Biomedical Sciences* in the discipline of Biological Sciences, conducted in English**

### **Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Biomedical Sciences* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in any field.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

### **Qualification criteria**

The candidates will be assessed by the committee in two stages.

In the first stage, the candidate's academic performance and special achievements (internships, publications, participation in research, schools, conferences, scholarships and awards, and other achievements) will be evaluated on the basis of the submitted CV and documents (0-30 points).

In a second stage, an interview in English will be conducted with the candidate (0-70 points).

### **Admission procedure**

Candidates may apply for admission to the programme under research topics at one of the Institutions: (1) the Malopolska Centre of Biotechnology (MCB) or (2) Jagiellonian Centre for Experimental Therapeutics (JCET) or (3) the Solaris National Synchrotron Radiation Centre (Solaris).

The qualification procedure consists of two stages.

In the first stage, the committee examines the documents sent by the candidate and assesses them by awarding a total of between 0 and 30 points. The admission committee draws up, separately for each institution, intermediate ranking lists of candidates applying for admission to the programme respectively for: (1) MCB, (2) JCET and (3) Solaris. From the intermediate ranking list of a particular institution, a maximum of twice the number of candidates in relation to the number of research topics available in the given academic year for (1) MCB, (2) JCET and (3) Solaris, respectively, are admitted to the second stage, in accordance with the order on the intermediate ranking list of a certain institution on the basis of the scores obtained.

The cut-off thresholds for the intermediate ranking lists used to determine twice the number of candidates in relation to the number of research topics available in a given year for a given institution are independent for (1) MCB, (2) JCET, and (3) Solaris. There will be no transfer of candidates between intermediate ranking lists regardless of the scores obtained. The minimum score to qualify a candidate for the second stage of recruitment is 20 points. Candidates who are not admitted to the second stage since they did not obtain the minimum points required in the first stage or who are below the cut-off threshold, will be awarded 0 points for the second stage.

In the second stage, there will be an interview consisting of:

1. a 5-minute presentation (Power Point) by the candidate of his/her thesis and/or other research work in which the candidate participated.

In this part presentation skills, knowledge of English and preparation of the candidate for scientific research will be assessed (between 0 and 20 points may be awarded in total);

2. a 15-minute discussion conducted by the committee members regarding the presentation and a scientific paper selected by the candidate from one to three articles provided 1,5 hours ahead of the interview, as well as the broadly defined research topics selected by the candidate at the time of the admission process and other scientific topics.

In this part, the candidate's general and specialist knowledge, ability to solve scientific/technical problems and work in a research group, ability to lead a group, and the candidate's professional preparation for research on the chosen research topic will be evaluated (between 0 and 50 points may be awarded in total).

### **Final result calculation**

The admission committee shall draw up separate ranking lists of candidates applying for admission to the education programme in Biomedical Sciences at the Doctoral School of Exact and Natural Sciences for: (1) the Malopolska Centre of Biotechnology (MCB), (2) the Jagiellonian Centre for Experimental Therapeutics (JCET) and (3) the Solaris National Synchrotron Radiation Centre.

The order of candidates in each ranking list shall be determined by their final qualification score, being a number between 0 and 100, defined as the sum of points obtained in the first and second stages of the admission procedure.

The cut-off thresholds in the ranking lists in a given year for a given institution are independent for (1) MCB, (2) JCET, and (3) Solaris. The minimum score to qualify a candidate for the programme is 75 points. From the ranking list of a particular institution, the number of candidates corresponding to the number of research topics available in a given year for (1) MCB, (2) JCET, and (3) Solaris, respectively, will be admitted to the programme.

## F. Education programme named *Chemistry in the discipline of Chemical Sciences, conducted in Polish*

### Formal requirements for entering the admission procedure

Candidates eligible for admission to the *Chemistry* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences or in the field of engineering sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

Within the framework of the current programme, it is possible to pursue education in English, based on an individual study programme, with the consent of the programme co-ordinator and the proposed academic supervisor.

### Qualification criteria

Candidates are placed on the ranking list in order determined by their final numerical result, calculated on the basis of:

1. grade average computed into points by the following formula:

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

where:

$W_{sr}$  stands for the grade average from the long-cycle graduate program, or for the appropriately computed arithmetic average of grade averages from undergraduate (first- cycle) and graduate (second-cycle) programmes, computed into points,

$S_r$  stands for candidate's grade average, computed in accordance with the regulations in power at the university of graduation,

$M$  stands for the maximum (best) grade on the scale in power at the university of graduation,

$m$  stands for the minimum (worst) grade on the scale in power at the university of graduation;

2. result of the interview, assessed on the scale from 2.00 to 5.00 points, increasing by 0.5 point.

### **Admission procedure**

Admission procedure is divided into two stages.

In the first stage, the candidate's grade average is calculated as points according to the formula above. Candidates with the highest grade averages take part in the second part of the admission procedure in a number 40% higher than the limit set for admission. The commission may invite to the second stage a higher number of candidates than that resulting from the application of this rule. The remaining candidates are placed on the ranking list in order determined by the number of points they have been granted in the first part.

In the second stage of the admission procedure, an interview shall be conducted. The interview may be held in Polish or/and in English.

During the first part of the interview, committee members ask questions about the candidate's course of studies, previous achievements, and about the subject and preliminary results of their *Magister* thesis, as well as about the academic work and research projects which the candidate would like to carry out while enrolled at the doctoral school. The second part of the interview includes questions related to the study subject chosen by the candidate in consultation with their proposed supervisor from the following: physical chemistry, theoretical chemistry, or biochemistry.

### **Final result calculation**

The final result of the admission procedure  $W$  is expressed as a number on a scale from 0 to 100, calculated for all candidates on the basis of the following formula:

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

where:

$W_{sr}$  stands for the grade average,

$W_{RK}$  stands for the result of the interview (if candidate fails the interview with the final grade of 2.0,  $W_{RK} = 0.0$  in this calculation).

## **G. Education programme named *Biophysics* in the discipline of Physical Sciences, conducted in Polish**

### **Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Biophysics* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

Within the framework of the current programme, it is possible to pursue education in English, based on an individual study programme, with the consent of the programme co-ordinator and the proposed academic supervisor.

### **Qualification criteria**

Candidates are placed on the ranking list in order determined by their final result, calculated on the basis of: grade averages from undergraduate (first-cycle) and graduate (second-cycle) programmes, or of the grade average from long-cycle graduate programme (0-50 points), candidate's other achievements (internships, publications, participation in research, schools, conferences, scholarships, and awards), assessed on the basis of the curriculum presented by the candidate (0-20 points), and interview result (0-30 points).

In special cases, not covered in the admission procedure and final result calculation procedure, the decision is made by the committee.

### **Admission procedure**

The  $S$  studies assessment result expressed in points is calculated on the basis of the following formula:

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



where:

***Sb*** stands for the grade average of the undergraduate (first-cycle) programme, calculated in accordance with the regulations in power at the university of graduation,

***Mb*** stands for the best possible grade,

***Sm*** stands for the grade average from the first year of graduate (second-cycle) programme, calculated in accordance with the regulations in power at the university of graduation

***Mm*** stands for the maximum (best) grade on the grading scale in power at the university of graduation; for long-cycle graduate programs, ***Sb*** = ***Sm*** shall be adopted as the grade average for the completed years of studies.

For grading scales different from the Polish grading scale, the committee decides on the mode of calculation of the *S* result.

Candidate's academic achievements are assessed based on the presented curriculum vitae and documents, on a scale from 0 to 20 points by each committee member, and the final result is computed as mean of these grades.

The interview assesses the candidate's suitability for the doctoral school and covers the following areas of interest:

- 1) subject of the candidate's *Magister* thesis and candidate's academic achievements (0-10 points);
- 2) candidate's interests, and academic and research plans (0-10 points);
- 3) knowledge about the important problems and discoveries in physics, directly related to their previous research and to candidate's planned research (0-10 points).

Each interview point is assessed on the outlined scale, and the interview result is computed as an arithmetic average of the grades awarded by each committee member present during the interview.

Candidates who do not take part in the interview receive 0 (zero) points.

Candidates who obtain less than 35 points for the grade averages of their studies are not admitted to an interview.

### **Final result calculation**

The final admission procedure result *W* is expressed as a number on a scale from 0 to 100, calculated for all candidates as sum of points earned over the course of the admission procedure.

A ranking list of candidates is created on the basis of the points obtained in the qualification procedure. Admission will be decided by the position on the ranking list taking into account the limit of places.

Only candidates whose final admission procedure result stands at least at 67.00 points, and whose studies results grade stands at least at 35.00 points can be qualified for admission.

## **H. Education programme named *Physics* in the discipline of Physical Sciences, conducted in English**

### **Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Physics* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

### **Qualification criteria**

Candidates are placed on the ranking list in order determined by their final result, calculated on the basis of: grade averages from undergraduate (first-cycle) and graduate (second-cycle) programmes, or of the grade average from long-cycle graduate program (0-50 points), candidate's other achievements (internships, publications, participation in research, schools, conferences, scholarships, and awards), assessed on the basis of the curriculum presented by the candidate (0-10 points), and interview result (0-40 points).

In special cases, not covered in the admission procedure and the final result calculation procedure, the decision is made by the committee.

### **Admission procedure**

The  $S$  studies assessment result expressed in points is calculated on the basis of the following formula:

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

where:

***Sb*** stands for the grade average from the undergraduate (first-cycle) programme, calculated in accordance with the regulations in power at the university of graduation,

***Mb*** stands for the best possible grade,

***Sm*** stands for the grade average from the first year of graduate (second-cycle) programme, calculated in accordance with the regulations in power at the university of graduation,

***Mm*** stands for the maximum (best) grade on the grading scale in power at the university of graduation; for long-cycle graduate programmes, ***Sb*** = ***Sm*** shall be adopted as the grade average for the completed years of studies.

For grading scales different from the Polish grading scale, the committee decides on the mode of calculation of the *S* result.

Candidate's academic achievements are assessed based on the presented curriculum vitae and documents, on a scale from 0 to 10 points by each committee member, and the final result is computed as mean of these grades.

The interview assesses the candidate's suitability for the doctoral school and covers the following areas of interest:

- 1) subject of the candidate's *Magister* thesis and candidate's academic achievements (0-10 points);
- 2) candidate's interests and academic and research plans (0-10 points);
- 3) knowledge about the important problems and discoveries in physics, directly related to their previous research and to candidate's planned research (0-20 points).

Each interview point is assessed on the outlined scale and the interview result is calculated as an arithmetic average of the grades awarded by each committee member present during the interview, rounded to the second decimal place.

Candidates who do not participate in the interview receive 0 (zero) points.

### **Final result calculation**

The final admission procedure result *W* is expressed as a number on a scale from 0 to 100, calculated for all candidates as sum of points earned over the course of the admission procedure.

Only candidates whose final admission procedure result stands at least at 60.00 points, and whose studies results grade stands at least at 35.00 points can be qualified for admission.

## **I. Education programme named *Earth and Environmental Sciences* in the discipline of Earth and Environmental Sciences, conducted in Polish**

### **Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Earth and Environmental Sciences* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

Within the framework of the current programme, it is possible to pursue education in English, based on an individual study programme, with the consent of the programme co-ordinator and the proposed academic supervisor.

### **Qualification criteria**

Candidates are placed on the ranking list in order determined by the interview result, which is scored from 0 to 100 points. The interview focuses on the candidate's research interests, knowledge in the area of the proposed research, and their motivation for undertaking education at the Doctoral School.

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

### **Admission procedure**

As a result of the interview, the candidate is awarded points (from 0 to 100 points). The interview may be conducted by separate committees in the area of physical geography and in the field of geological sciences. A separate ranking list is prepared for each of these fields. Candidates who receive a minimum of 51.00 points as a result of an interview are placed on the lists.

### **Final result calculation**

Candidates are placed on the ranking list in order determined by their interview result. Based on the ranking lists (separate for physical geography and geological sciences) and on the number of places available, list of candidates admitted to the programme is established. Other candidates who were awarded a minimum of 51.00 points are placed on waiting lists, separately for physical geography and geological sciences.

## **J. Education programme named *Biology* in the discipline of Biological Sciences conducted in Polish**

### **Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Biology* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

### **Qualification criteria**

The order of candidates on the ranking list shall be determined by the numerical sum of points obtained as a result of the conducted qualification, determined on the basis of the following three stages:

1. oral presentation of the research project done by the candidate (assessed on a scale of 0-30 points);
2. An interview assessing the knowledge on the research topic of the presented project (assessed on a scale of 0-50 points);
3. English language exam (assessed on a scale of 0-20 points).

### **Admission procedure**

Separate ranking lists of candidates applying for admission to the *Biology* education programme shall be created, respectively, for: (1) Institute of Zoology and Biomedical Research, (2) Institute of Botany, and (3) Institute of Environmental Sciences.

A research project thematically related to the planned doctoral thesis shall include: name and surname, topic, short introduction, research objectives, methodology, expected results. The project consists of a maximum of 3-4 A4 pages.

The candidate shall give a 5-minute oral presentation on the submitted research project, followed by an interview on the field of knowledge covering the research spectrum of the candidate's project.

Both the presentation of the project and the interview shall be conducted in Polish.

The English language exam shall be conducted by the examination team. The candidate shall be assessed according to four categories:

1. vocabulary + pronunciation;
2. grammar;
3. fluency;
4. interaction.

In each of these categories, the candidate may receive 0 to 5 points.

**Final result calculation**

The final result of the qualification procedure shall be the sum of the points from the three stages mentioned above and is a number between 0 and 100.

## **K. Education programme named *PhD Programme in Biology in the discipline of Biological Sciences conducted in English***

### **Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *PhD Programme in Biology* at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in the field of exact and natural sciences.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

### **Qualification criteria**

The order of the candidates on the ranking list shall be determined by their final numerical result of the qualification based on the result of the interview (0-100 points).

### **Admission procedure**

When registering in the system, the candidates for the programme at the doctoral school shall indicate a research topic of interest to them. Research topics shall be posted on the doctoral school website at least two weeks before the start of enrolment.

The interview shall be conducted in English. During the interview, candidates shall give a short oral presentation of the research plans for their doctoral thesis, together with the reasons for the selection of the topics. Then they shall answer enrolment committee questions on the topic of the doctoral thesis and related issues. In the next part of the interview, they shall be given a summary of the publication to read and will have to discuss it. Knowledge of the planned research scope and the ability to use English shall be primarily assessed.

The candidate's qualification result for the entire qualification procedure shall be the number of points obtained during the interview.

### **Final result calculation**

The final result of the enrolment procedure *W* shall be a number determined for all candidates as the number of points obtained during the interview.

## **L. Education programme named *Technical Computer Science* in the discipline of Technical Computer Science and Telecommunications conducted in English**

### **Formal requirements for entering the admission procedure**

Candidates eligible for admission to the *Technical Computer Science* education programme at the Doctoral School of Exact and Natural Sciences are the holders of *Magister*, *Magister inżynier*, or equivalent professional title awarded in any field.

In exceptional cases, given the outstanding quality of candidate's academic achievements, a person referred to in Article 186 of the Act who does not hold a *Magister* title, who has completed the undergraduate (first-cycle) programme, or who has completed the third year of long-cycle graduate programme but holds the status of student of a programme in the field indicated above or has graduated from a programme in that field, may also apply for admission to the programme.

In order to confirm the fulfilment of the condition referred to in Article 186, section 2 of the Act, the candidate shall be obliged to submit:

two opinions confirming the high quality of the research work carried out and the high level of advancement of such work, issued by academic tutors holding at least the postdoctoral degree or being employees of a foreign university or scientific institution who have significant achievements in scientific issues related to the programme.

Whether the candidate meets the condition referred to in Article 186 section 2 of the Act shall be decided by the director in consultation with the chair of the committee.

### **Qualification criteria**

Candidates are assessed by the committee during the interview. The interview comprises two parts, assessed separately. In the first part of the interview, candidate is assessed on the results of their studies, their special achievements, and general knowledge (0-50 points). In the second part of the interview, candidate is assessed on their *Magister* thesis and planned research project (0-50 points).

### **Admission procedure**

In the first part of the interview, the committee assesses the results of their studies and the achievements outlined in the curriculum vitae. This part also verifies and assesses the candidate's knowledge in the scope not exceeding the undergraduate and graduate programmes in the field of Computer Science.

In the second part of the interview, the committee assesses the *Magister* thesis, proposed research project, and the candidate's readiness for undertaking research. This part also verifies the candidate's knowledge and qualifications in the proposed area of research.

### **Final result calculation**

The final admission procedure result  $W$  is expressed as a number on a scale from 0 to 100, calculated as follows:

$$W = A + B,$$

where:

$A$  stands for the result of assessment of the first part of the interview, on a scale from 0 to 50, and



*B* stands for the result of assessment of the second part of the interview, on a scale from 0 to 50.

**Qualification for admission**

The candidates who are qualified for admission have received the top scores, i.e. the qualification score at the level not lower than 67.00 points; whereas, the admission depends on the position on the ranking list, taking into account the number of vacancies.