

**Regulations on admission to the Master of Science in Genetics
and Biology of Aging and Regeneration programs,
Master of Science in Computational Biology, Master of Science in
Ecology, Evolution and Environment, Master of Science in Molecular
Plant and Microbial Sciences, and Master of Science in
Neuroscience from the Faculty of Mathematics and Natural
Sciences.
of the University of Cologne
from 11.07.2022**

Based on § 2 (4) sentence 1 of the Act on the Universities of the State of North Rhine-Westphalia (Hochschulgesetz - HG) in the version of the Higher Education Future Act (Hochschulzukunftsgesetz HZG NRW) of September 16, 2014 (GV. NRW. p. 547), last amended by Article 1 of the Act on the Further Amendment of the Higher Education Act and the Higher Education Act for the Arts of November 25, 2021 (GV. NRW. p. 1210a), and § 4 (1) of the examination regulations for the Master's degree programs Master of Science in Genetics and Biology of Aging and Regeneration, Master of Science in Computational Biology, Master of Science in Ecology, Evolution and Environment, Master of Science in Molecular Plant and Microbial Sciences and Master of Science in Neuroscience of the Faculty of Mathematics and Natural Sciences of the University of Cologne dated July 11, 2022 (Amtliche Mitteilungen 47/2022), the Faculty of Mathematics and Natural Sciences of the University of Cologne issues the following regulations:

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§ 1

Scope

These regulations govern access and admission to the Master of Science in Genetics and Biology of Aging and Regeneration, Master of Science in Computational Biology, Master of Science in Ecology, Evolution and Environment, Master of Science in Molecular Plant and Microbial Sciences and Master of Science in Neuroscience programs of the Faculty of Mathematics and Natural Sciences of the University of Cologne (hereinafter: Master's programs).

§ 2

Access requirements

(1) ¹The admission requirement for the master's degree programs, even if applying for a higher semester, is a first professional degree in a mathematics, natural science or engineering degree program with an overall grade of at least 2.7 and a duration of at least six semesters in which at least 180 credit points were earned, or an equivalent relevant degree. ²Within the scope of the first professional qualification, additional achievements must have been made to the extent shown in the appendix. ³Degrees obtained abroad are classified by the admissions committee on the basis of the evaluation proposals provided by the Central Office for Foreign Education in the Secretariat of the Conference of Ministers of Education and Cultural Affairs within the anabin database.

(2) ¹Insofar as the underlying study program has not yet been completed at the time of application, an application is possible in deviation from paragraph 1 if at least 80 percent of the credit points to be acquired or the achievements recognized as equivalent have already been proven and all examinations will have been taken by September 30 of the same year. ²In this case, a result calculated and certified by the examination office of the bachelor's degree program on the basis of the examinations taken up to that point shall take the place of the degree according to paragraph 1. ³In this case, the further admission requirements of paragraph 1 and the appendix must be fulfilled within the scope of the previous performance.

(3) Applicants who have neither obtained their university entrance qualification nor their first professional qualification in English must provide proof of knowledge of the English language at a high level B2 of the Common European Framework of Reference for Languages. This can be proven by

- a. TOEFL: Paper-based 580 / Computer-based 237 / Internet-based 93,
- b. IELTS test: 6.5, level of each subcomponent at least 6.0,
- c. Cambridge English Qualifications: B2 First, Cambridge English Scale 175,
- d. TOEIC: 460 (listening), 425 (reading) / 170 (writing), 175 (speaking) or
- e. University entrance qualification from the area covered by the Basic Law, showing at least 6 years of English language instruction.

§ 3

Admission requirements

(1) The selection and admission of applicants is based on the relevant provisions of the Law on Admission to University Studies in North Rhine-Westphalia, the Ordinance on the Allocation of Study Places in North Rhine-Westphalia, the Framework Regulations for the Implementation of Selection Procedures in Admission-restricted Study Programs at the University of Cologne, and the provisions of the Regulations on the Admission to Studies of Foreign Students at the University of Cologne, as amended from time to time.

(2) ¹The number of study places can be limited and will be redefined annually in this case. ²If in this case the number of applicants entitled to admission exceeds the number of study places available in each case, the selection among the applicants is according to the overall grade of the first degree qualifying for admission or, in the case of an application according to § 2 (2), according to the grade point average achieved at the time of application. ³In the event of equal ranking, the order of admission is decided by lot.

(3) Admission to the Master's program shall be denied if:

1. the access requirements according to § 2 are not fulfilled or
2. the applicant has already obtained the degree of Master of Science or an equivalent degree in the same degree program at a university within the area of application of the Basic Law, or
3. the applicant has definitively failed an examination required by the examination regulations in the respective Master's degree program at a university within the area of application of the Basic Law; this applies accordingly to degree programs that have a considerable similarity in content.

§ 4

Application, application deadline

(1) ¹The application for admission must be submitted by July 15 of each year for the master's program (cut-off deadline). ²It is only valid for the allocation of study places for the coming semester.

(2) The application must be accompanied by the following documents in German or English (numbers 1. to 3.) or in English (numbers 4. and 5.) or a certified translation:

1. Evidence of the access requirements according to § 2,
2. Presentation of the (previous) course of studies (Transcript of Records),
3. University Entrance Qualifications,
4. Curriculum vitae in tabular form including the indication of two references,
5. The application form provided by the Admissions Committee in an appropriate manner.

(3) By deviation from paragraph 2 no. 1 in conjunction with § 2 (1), applicants who obtain their first professionally qualifying degree in the current summer semester only, need to submit proof of their achievements by July 15, stating their grade point average, as well as proof of the expected date of completion of the outstanding examinations. ²The certificate for the first professionally qualifying degree must be submitted by March 31 of the following year. ³If the certificate is not submitted on time, enrolment in the Master's degree course will be terminated.

(4) ¹Applications are submitted via the campus management system KLIPS 2.0 of the University of Cologne. ²Applicants who did not obtain their first professional qualification within the area of application of the German Basic Law (Grundgesetz) must apply to the working service point for international student applications (Arbeits- und Servicestelle für internationale Studienbewerbungen; uni-assist) e.V. for a Preliminary review documentation (Vorprüfungsdokumentation (VPD)) of the application documents and submit this VPD with the application via the campus management system KLIPS 2.0.

§ 5

Admission / rejection notice

(1) ¹Applicants will be informed about an existing offer of admission via the e-mail address they provided as part of their application as well as via the application portal of the University of Cologne. ²The applicant will be given a period of seven days in which to submit a declaration of acceptance of the present offer of admission. ³The period begins with the announcement of the offer of admission. ⁴If the declaration of acceptance of the offer of admission is not made or is not made in time, the study places that have become free will be reallocated. ⁵The applicants are excluded from the further procedure.

(2) ¹If not all of the applicants admitted in accordance with paragraph 1 declare their

(2) ¹If not all of the applicants admitted in accordance with paragraph 1 declare their acceptance of the offer of admission within the set deadline, a corresponding number of applicants who have not initially received an offer of admission will be admitted in the order of the rank they achieved in accordance with § 3 (2) (move-up procedure), insofar as free study places are available within the framework of the admission number set by the Ministry of Culture and Science of the State of North Rhine-Westphalia for the respective Master's degree program.

²Applicants will be informed of an available offer of admission in the move-up procedure via the e-mail address they submitted as part of their application as well as via the application portal of the University of Cologne. ³The applicant will be given a period of four days in which to submit a declaration of acceptance of the available offer of admission. ⁴The period begins with the announcement of the offer of admission. ⁵If the declaration of acceptance of the offer of admission is not made or is not made on time, the study places that have become free will be reallocated in accordance with sentence 1. ⁶The applicants are excluded from the further procedure.

rejection notice with instructions on how to appeal.

(3) Applicants who cannot be admitted at the end of the selection procedure will receive a

(4) The admission of secondary students is governed by the enrollment regulations of the University of Cologne as amended from time to time.

§ 6

Retraction, revocation

¹Admission may be withdrawn or revoked if it subsequently transpires that the applicant has failed to maintain admission to the course, in particular if this was based on false information in the application procedure. ²If the applicant has already been enrolled, he or she will be de-registered from the Master's degree program. ³The person concerned must be given the opportunity to comment before a decision is made by the Admissions Committee.

§ 7

Admissions Committee

¹The joint examination board for the Master's programs Master of Science in Genetics and Biology of Aging and Regeneration, Master of Science in Computational Biology, Master of Science in Ecology, Evolution and Environment, Master of Science in Molecular Plant and Microbial Sciences and Master of Science in Neuroscience of the Faculty of Mathematics and Natural Sciences (Admission Board) is responsible for conducting the award procedure. ²For the assessment of the professional admission requirements according to § 2 (1) and the appendix, professional opinions of at least two persons involved in teaching or in the course guidance of the specific Master's program, of which at least one is a university lecturer, are obtained. ³These persons are invited to the meeting of the admissions committee and participate in an advisory capacity.

§ 8

Entry into force, publication

¹These regulations come into force on the day following their publication in the Official Notices of the University of Cologne. ²It applies for the first time for admission to the winter semester 2023/2024.

Issued on the basis of the resolution of the Narrow Faculty of the Faculty of Mathematics and Natural Sciences of 28.04.2022 and after examination of the legality by the Rectorate of 14.06.2022.

Cologne, 11.07.2022

The dean
of the Faculty of Mathematics and Natural Sciences of
the University of Cologne

gez.

University Professor Dr. Ir. Paul H. M. van Loosdrecht

Appendix

Achievements to be verified according to § 2 (1)

(1) Additional admission requirements for the Master of Science in Genetics and Biology of Aging and Regeneration are:

- At least 40 credit points from at least three of the following disciplines: biochemistry, developmental/regenerative biology, genetics, immunology, molecular biology, or cell biology,
- At least 35 additional credit points from the fields of biochemistry, biomathematics/bioinformatics/computational biology, biophysics, botany/plant sciences, developmental/regenerative biology, genetics, immunology, microbiology, molecular biology, neurobiology/neuroscience, physiology, cell biology and/or zoology,
- of which at least 30 credits are in the experimental/practical area of the following disciplines: biochemistry, developmental/regenerative biology, genetics, immunology, microbiology, molecular biology, neurobiology and/or cell biology,
- At least 5 additional credit points in fundamentals of mathematics, statistics, and/or physics,
- At least 12 additional credit points in fundamentals of inorganic, organic, physical chemistry and/or theoretical chemistry.

(2) Additional admission requirements for the Master of Science in Computational Biology program are:

- A minimum of 12 credit points from genetics and/or molecular biology,
- At least 60 additional credit points from at least three of the following disciplines: biochemistry, botany/plant sciences, developmental biology, evolutionary biology, genetics, microbiology, molecular biology, ecology, neurobiology/neuroscience, physiology, or cell biology; and
- At least 24 additional credit hours in foundations of mathematics, statistics, physics, bioinformatics, and/or biomathematics, including at least 6 credit points in bioinformatics/computational biology.

(3) Additional entrance requirements for the Master of Science in Ecology, Evolution and Environment program are:

- A minimum of 30 credit points from both zoology/ecology and molecular biology/genetics,
- At least 45 additional credit points from biochemistry, bioinformatics/biomathematics, botany/plant sciences, developmental biology, microbiology, physiology, and/or cell biology,
- of which at least 10 credits in experimental/practical area of both Zoology/Ecology and Molecular Biology/Genetics,

- At least 14 additional credit hours in the experimental/practical areas of ecology, zoology, biochemistry, bioinformatics/computational biology, botany/plant science, developmental biology, genetics, microbiology, molecular biology, ecology, neurobiology/neuroscience, physiology and/or cell biology,

- At least one additional credit in the practical area in the form of field work or excursion participation (confirmed by document work / protocol),

- At least 5 additional credit points in fundamentals of mathematics, statistics, and/or biophysics; and

- At least 6 additional credit points in fundamentals of Inorganic and/or Organic Chemistry.

(4) Additional admission requirements for the Master of Science in Molecular Plant and Microbial Sciences program are:

- At least 75 credit points from at least three of the following disciplines: biochemistry, bioinformatics/biomathematics, botany/plant sciences, developmental biology, genetics, microbiology, molecular biology, ecology, neurobiology/neuroscience, physiology, or cell biology,

- of which at least 24 credits in the experimental/practical area of biochemistry, bioinformatics / biomathematics, botany / plant sciences, developmental biology, genetics, microbiology, molecular biology, ecology, neurobiology/neuroscience, physiology and / or cell biology,

- At least 5 additional credit points in fundamentals of mathematics, statistics, and/or physics, and

- At least 12 additional credit points in fundamentals of inorganic chemistry, organic chemistry, and/or physical chemistry.

(5) Additional admission requirements for the Master of Science in Neuroscience program are:

- A minimum of 4 credit hours from Neurobiology/Neuroscience or Animal Physiology,

- At least 12 additional credit points from at least two of the following: biochemistry, bioinformatics or biomathematics, biophysics, developmental biology, genetics, molecular biology, cognitive science, neurobiology/neuroscience, ecology, robotics, animal physiology, behavioral biology, and/or cell biology,

- of which at least 6 credits in the experimental/practical area of biochemistry, developmental biology, genetics, molecular biology, neurobiology/neuroscience, psychology, cell biology, experimental physics and/or chemistry,

- at least 5 additional credit points in mathematics and / or statistics and

- At least 5 additional credit points in physics, physical chemistry, inorganic chemistry, and/or organic chemistry.