

**Examination regulations for 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 of
the Faculty of Mathematics and Natural Sciences of
the University of Cologne**

from 11.07.2022H

On the basis of § 2 paragraph (4) and § 64 of the Higher Education Act on the Universities of the State of North Rhine-Westphalia (Hochschulgesetz - HG) in the version of the Higher Education Future Act () 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), the Faculty of Mathematics and Natural Sciences of the University of Cologne issues the following regulations:

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§ 1

Regulatory scope

¹These examination regulations govern the course of study, the examination procedure and the academic degree to be awarded for 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 at the University of Cologne. ²The contents and requirements of the modules are regulated in the annexes. ³The annexes are part of these examination regulations.

§ 2

Study Goal

¹Taking into account the requirements and changes in the professional world and the interdisciplinary references, teaching and studies provide the students with the necessary professional knowledge, skills and methods in accordance with the course of study,

in such a way that they are enabled to do scientific work, to apply scientific knowledge and methods in professional practice, to critically classify scientific knowledge and to act responsibly.^{0F1} ²The degree program is research-oriented.

§ 3

Academic degree

¹Upon successful completion of the program, the academic degree of Master of Science, M.Sc. is awarded.

§ 4

Access to studies, start of studies, standard period of study, study organization

- (1) Access and admission to the study program are governed by separate regulations.
- (2) ¹The study program can only be started in the winter semester. ²The standard period of study is four semesters.
- (3) ¹The course of studies is organized by the Faculty of Mathematics and Natural Sciences in such a way that the studies can be completed within the standard period of study. ²On the part of the Faculty of Mathematics and Natural Sciences, adequate support for students in organizing their studies is ensured, among other things, through course-specific advising and through measures for evaluating and ensuring the quality of teaching.
- (4) ¹A study plan is drawn up. ²This study plan is part of the examination regulations (Appendix 2).
- (5) ¹The study program is offered in English. ²Proof of knowledge of the English language is regulated in the regulations on admission to the master's program.

§ 5

Design and structure of the study program

- (1) In the course of study 120 credit points (LP) are to be acquired according to § 7.

¹ Students acquire the necessary knowledge and competencies that enable them to exercise good scientific practice and to act responsibly in science in accordance with the University of Cologne's "Guidelines for Good Scientific Practice and for Dealing with Scientific Misconduct" (Official Notices of the University of Cologne 08/2022), as amended.

- (2) ¹The study program includes 10 modules according to § 6.² In detail, it includes:
- a) 4 basic modules worth 6 credit points each, 2 advanced modules worth 12 credit points each, 2 specialization modules worth 12 credit points each, and one supplementary module worth 12 credit points,
 - b) the module Master's Thesis, consisting of the Master's Thesis worth 30 credit points and the final colloquium worth 6 credit points.
- (3) Studies are conducted in accordance with the respective provisions in the annexes to these examination regulations.

§ 6

Modules

(1) The study program is structured in modules.

(2) ¹Modularization is the combination of subject areas into thematically and chronologically related, self-contained teaching units with credit points. ²The contents of a module are to be dimensioned in such a way that it can generally be taught within one semester or within two semesters. ³In particularly justified cases, a module may extend over more than two semesters.

(3) ¹Modules usually have a scope of 6, 9, 12, 15 or 18 credit points. ²Modules with 6 credit points can usually be completed in one semester, the others in a maximum of two semesters.

(4) A distinction is made between the following module types:

- a) Basic Modules are designed to provide basic knowledge,
- b) Advanced modules build on the basic modules and serve to deepen the acquired knowledge and skills,
- c) Focus Modules (Specialization Modules) are used to define one's own focus through specialization,
- d) Supplementary modules are not firmly anchored in the course of study and serve to round off the studies individually.

(5) Modules can be offered as compulsory or elective:

- a) Compulsory modules are mandatory to study; they are identified as such in the annexes,
- b) Elective modules are to be selected from a given list or are organized individually and are compulsory to study according to the provisions in the annexes; they are identified as such in the

(6) ¹Regulations concerning the individual modules as well as the examinations concluding them are named in the annexes. ²These include in particular:

- a) Module identification number,
- b) Title of the module,
- c) Module participation prerequisites,
- d) Start of the module,
- e) Timing of the module,
- f) Duration of the module in semesters,
- g) Course forms of the module and requirements for participation,
- h) Examination Requirements,
- i) Examination form, type and duration of the module examination, examination elements if applicable and their passing and repetition modalities,
- j) Exam language,
- k) Trial Restrictions,
- l) Designation as a required or elective module,
- m) Credit points of the module,
- n) Requirements for awarding credit points,
- o) for elective modules: Proportion of the module's credit points to the credit points in the relevant elective area,
- p) Weighting of the module grade for the overall grade.

(7) ¹As a rule, modules are completed with only one module examination. ²For modules worth 6 credit points, the module examination consists of one examination element. ³In the case of modules worth 9 credit points, the module examination may consist of two examination elements. ⁴For modules of 12, 15 or 18 credit points, the module examination can consist of a maximum of three examination elements. ⁵Individual modules can also be completed without an examination. ⁶The corresponding regulations are shown in the annexes.

(8) If a module examination consists of several examination elements, these usually represent different examination forms or forms of examination according to § 12 (2-6).

(9) ¹Participation in modules or elements of modules may be subject to prerequisites. ²The prerequisites are shown in the annexes.

§ 7

Credit point system and general criteria for awarding credit points

(1) ¹Successful participation in modules is certified by the award of credit points. ²Credit points are calculated according to the amount of work students are expected to put in and are a quantitative measure of the total workload of the students. ³They include the time spent both on attending courses and on preparing and following up the course material (attendance and self-study), preparing for examinations and the time required for examinations, including final papers and student research projects and, if applicable, internships. ⁴Credit points are equivalent to credits according to the European Credit Transfer and Accumulation System. ⁵One credit point corresponds to an average workload of approximately 30 hours. ⁶As a rule, 60 credit points are earned per academic year.

(2) ¹Credit points are awarded if the study and/or examination achievements required in the respective module have been proven or passed. ²Section 48 (5) HG applies to the acquisition of credit points in the case of leaves of absence. ³Irrespective of this, study and examination achievements from modules that have not been completed can be shown in the Transcript of Records.

§ 8

unoccupied

§ 9

Courses

(1) Courses are generally offered in the forms:

- a) Lecture: Coherent presentation and teaching of basic and specialized scientific knowledge and of methodological knowledge, usually in individual courses distributed periodically over a semester.
- b) Seminar: Discursive engagement with fundamental or further-reaching questions.
- c) Exercise: Course accompanying a lecture or seminar. Discussion of given exercises and deepening of learning content through independent work or acquisition and deepening of knowledge by working on tasks or conducting experiments.
- d) Internship: Acquisition and deepening of knowledge by working on practical tasks or conducting experiments. An internship can

be carried out at the university (e.g. laboratory internship) or outside the university (e.g. as field, company or school internship).

e) Excursion: Course outside the university for illustrative purposes. Students recognize aspects of subject content in reality, record relevant factors/ structures on the basis of observations and practice applying the acquired knowledge or work out scientific conclusions.

f) Language course: Course designed to acquire and/or reinforce foreign language skills.

g) Project: Action-oriented, independent work on a complex task or problem in successive phases (planning, execution, presentation of results), usually within a previously determined time.

h) Tutorial: As a rule, this is an accompanying event to basic courses. In small groups, working techniques are practiced and basic knowledge is deepened; the complex contents of the main course are explained to the students or the theoretical contents are illustrated using practical examples.

(2) The course forms according to paragraph 1 may be offered in combined form.

(3) ¹If it is necessary to limit the number of participants in a course because of its nature or purpose or for other reasons of research or teaching, and if the number of applicants exceeds the capacity, the number of participants may be limited in accordance with § 59 paragraph 2 HG. ²Priority shall be given to students whose studies require them to attend a course at that time. ³The details, in particular the criteria for prioritization, are regulated by the faculty in its own regulations. ⁴Within the scope of the available resources, it shall be ensured that, as far as possible, students do not lose any time as a result of the restrictions on the number of participants.

(4) ¹Admission to an examination or the awarding of credit points may require regular participation in courses in modules and their review. ²Corresponding provisions are shown in the annexes. ³The ordering of regular participation is only permissible if it is proportionate and the learning objective can only be achieved through regular participation. ⁴This is usually the case if at least one of the following reasons exists:

a) The obligation to demonstrable regular participation in modules or courses results from the initiation and practice of scientific discourse, which are the primary and formative element and essential learning objective of the module or course. Scientific discourse is characterized by the presentation of scientific issues and argumentation and one's own positioning as well as critical reflection and mutual exchange about what has been presented.

- b) The obligation to provide evidence of regular participation in modules or courses results from the didactic design of the course, which provides for permanent participatory, interactive and cooperative teaching and learning formats as well as reflection on the content and results under supervision in order to achieve the learning objective.
- c) The obligation to provide evidence of regular participation in modules or courses is prescribed by legal regulations.
- d) The obligation to provide evidence of regular participation in modules or courses is mandatory for reasons of occupational health and safety and laboratory safety.
- e) The obligation to provide evidence of regular participation in modules arises from the need to acquire practical skills and abilities that cannot be acquired in any other way, and to test, practice and reflect on them under supervision.
- f) The obligation to provide evidence of regular participation in modules arises from the need to practice sign language or oral or written language skills and abilities as well as their practical linguistic execution and reflection in the context of communicative and personal interaction under supervision.
- g) The obligation to provide evidence of regular participation in modules or courses arises from the need to examine content-relevant subjects and contexts in situations and to acquire practical or professionally relevant skills and abilities depending on the location and situation, including non-university learning locations.

⁵As a rule, regular attendance can be proven if the absences do not exceed 20%. In this case, participation cannot be compensated by other achievements. ⁷Deviations may be made from this rule, particularly in the case of internships and excursions. ⁸Corresponding regulations are set out in the appendices. ⁹ § 17 (4) applies accordingly ¹⁰Regular attendance in the courses as well as their preparation and follow-up is recommended.

§ 10

Academic advising, subject-specific advising, examination advising

(1) Legally binding information on examination requirements and examination performance is provided by the chairperson of the examination committee, his or her deputy, the head of the respective examination office and his or her deputy.

(2) ¹The Central Student Guidance and Counselling Service of the University of Cologne is available for general student advising, especially about study opportunities and study requirements. ²For interdisciplinary study advising, there are faculty-wide

Counseling services available. ³The Counseling Center of the Center for Teacher Education is also available for interdisciplinary counseling in the teacher education programs.

(3) ¹The subject study academic advising is provided by the university lecturers and academic staff involved in teaching this degree program during office hours. ²The office hours are announced by notices in the institutes and on the internet. ³It is recommended to make use of an individual student advisory service

(4) The General Student Committee (AStA) and the Biology Student Council offer consultations on general questions concerning the organization of studies.

(5) The Department 9 International Affairs of the University of Cologne as well as the Center for International Relations (ZiB) of the Faculty of Mathematics and Natural Sciences offer consultations for the special questions of foreign students and for the preparation of a study abroad.

(6) In case of study-related personal difficulties, you can make use of the psycho-social counseling of the Kölner Studierendenwerk.

(7) Students with disabilities or chronic or mental illness can take advantage of the advice of the university administration (Service Center Inclusion) and the representative for students with disabilities or chronic illness.

(8) ¹The Examinations Office is available for student advice on the provisions of these regulations, in particular for advice on the registration of individually organized modules and the Master's thesis module, as well as for advice on planning stays abroad. ²Students who have not passed any examinations for more than two semesters or who have only one attempt left to pass a module examination or a combined module examination should contact the Examinations Office for advice.

§ 11

Recognition of study achievements

(1) ¹Examination results obtained in study courses at other state or state-recognized higher education institutions, at state or state-recognized universities of cooperative education or in study courses at foreign state or state-recognized universities or in another study course at the same university shall be recognized in their entirety upon application, provided that with regard to the competences acquired there is no significant difference to the achievements which are being replaced; an examination of equivalence shall not take place. ²The same shall apply with regard to degrees with which courses of study within the meaning of sentence 1 have been completed. ³Recognition within the meaning of sentences 1 and 2 shall serve the purpose of continuing studies, taking examinations or commencing further studies. ⁴Failed examinations shall only be recognized to such an extent that all repetition options pursuant to § 20 (1) have not already been exhausted.

(2) ¹On application, knowledge and qualifications acquired by means other than study may be recognized on the basis of documents submitted if such knowledge and qualifications are equivalent in content and level to the examination achievements they are intended to replace. ²Pupils who, in the consensual judgment of the school and the university, display special talents may, in individual cases, be admitted to courses and examinations as young students outside the enrollment regulations. ³Their study and examination achievements will be recognized upon application for subsequent studies.

(3) ¹If achievements are recognized, the grades are to be adopted and included in the calculation of the overall grade, insofar as the grading systems are comparable. ²In the case of incomparable grading systems, the remark "passed" is included. ³A marking of the recognition in the certificate of examination achievements is permissible.

(4) Recognition of work completed elsewhere is not possible if this work has already been completed at the University of Cologne.

(5) ¹Students must submit the documents required for recognition. ²Requests for recognition must be submitted in writing or electronically. ³As a rule, subject representatives must be heard during the recognition procedure. ⁴As a rule, the decision shall be made within three months and the student shall be notified immediately by entering the recognition information in the campus management system; reasons for the rejection of recognition shall be given in writing or electronically. ⁵If recognition sought on the basis of an application within the meaning of paragraph 1 is refused, the person making the application may request a review of the decision by the rectorate, without prejudice to procedural deadlines. ⁶The rectorate shall make a recommendation to the chairperson of the examination committee on the further handling of the application.

§ 12

Forms of examination

(1) Modules are usually completed with only one module examination, which is based on the learning objectives and learning outcomes defined for the module.

(2) ¹Module examinations can be taken in written, oral, practical or combined form. ²The form and duration of the respective examination performance are shown in detail in the annexes. ³For serious reasons, the chairperson of the examination committee may determine a different form of examination upon written or electronic application. ⁴Examinations may also be conducted in the form of a video conference at the suggestion of the examiners and with the consent of the examined candidate.

(3) Types of the written examination form are usually:

a) Written examination: A written examination is a piece of work to be completed under supervision, in which given tasks are to be worked on alone and independently using only the approved aids. The duration of a written exam is usually a minimum of 45 and a maximum of 180 minutes and is specified for the respective exam in the annexes. Examinations can be conducted in written or electronic form. For examinations in electronic form, the regulations in paragraph 8 shall apply in addition. Examinations may also be conducted in whole or in part in the form of an answer-choice procedure in accordance with § 13.

b) Term paper: A term paper is an independent written elaboration of a given topic that has been dealt with in the context of the relevant module. It must be submitted in written or electronic form in a format designated by the examiner. The term paper must be accompanied by a signed declaration with the following wording: "I hereby declare that I have prepared this paper independently and without the use of any aids other than those specified. All passages taken verbatim or in spirit from published and unpublished external writings are marked as such."

c) An internship report is a presentation and analysis, in written or electronic form, of the tasks completed in an internship, either within or outside of the university.

d) A portfolio is a collection of several completed tasks in the broadest sense, which serves to document and reflect on the learning process and which is assessed in summary.

(4) Types of the oral examination form are usually:

a) Oral examinations: In oral examinations, an examination candidate should demonstrate that he or she recognizes the interrelationships of the examination area and is able to classify special questions in these interrelationships. Oral examinations are conducted by at least two examiners or by one examiner in the presence of an expert assessor. As a rule, an oral examination lasts a minimum of 20 minutes and a maximum of 45 minutes per examination candidate. The duration, main course of the examination as well as the subjects and results are to be recorded in a protocol. Examination candidates of the same degree program shall be allowed to participate in oral examinations as listeners upon request, unless an examination candidate objects. The examiner decides on the application according to the number of seats available. Participation does not extend to the discussion and announcement of the examination result.

b) Presentation: A presentation serves to present a given topic or subject in a limited amount of time. The examination takes place within the framework of a course in the form of a lecture with the aid of suitable presentation techniques.

c) Lecture: In the context of a lecture, independently developed aspects or perspectives of a topic are presented in a limited time with the help of suitable presentation techniques.

(5) Typical forms of practical examinations are: setting up and carrying out experiments and examinations in which an extracurricular product is created.

(6) ¹Types of combined examination are generally: workplace-based assessments, simulations, presentations with written elaboration, paper with presentation, poster with presentation, poster with presentation and project work. ²Project work is the independent processing of a task or problem from planning to implementation to documentation of the result in written, oral or other form; paragraph 7 applies accordingly. ³Combined examinations may only include examinations that are suitable for testing the acquisition of different (partial) competencies.

(7) In appropriate cases, examinations may also be conducted as group work or as oral group examinations, as determined by the examiner, if the individual contribution of each group member is clearly recognizable, clearly definable and assessable

(8) ¹An electronic examination (e-examination) is an examination that is carried out on a computer using an examination program and whose creation, execution and evaluation are supported overall by information and communication technologies. ²An e-examination is permissible if it is suitable for demonstrating that the examination candidate has mastered the contents and methods of the module in the essential contexts and can apply the acquired knowledge and skills; if necessary, it can be supplemented by other forms of examination. ³The examination candidates are given sufficient opportunity to familiarize themselves with the electronic examination system before the examination. ⁴The e-examination shall be conducted in the presence of a competent person who shall prepare a record of the course of the examination. ⁵The minutes must include at least the names of the person taking the minutes and of the candidates, the beginning and end of the examination, and any special incidents. ⁶It must be ensured that the electronic data can be clearly and permanently assigned to the examination candidates. ⁷In accordance with § 26, the examination candidates must be given the opportunity to inspect the computer-based examination and the results they have achieved. ⁸Data protection regulations must be complied with.

(9) ¹Disruptions in the examination process must be reported immediately in writing or electronically to the chairperson of the examination committee or to the examiner responsible. ²The assertion is excluded at the latest if more than three working days have elapsed since the examination performance.

§ 13

Tests in the answer-choice procedure

(1) ¹An examination in the answer-choice procedure exists if the minimum performance of the examination candidate required for passing the examination can be achieved exclusively by marking or assigning the given answers. ²Examinations or examination questions in the answer-choice procedure are only permissible if they are suitable for providing evidence that the examination candidate has mastered the contents and methods of the module in the essential contexts and can apply the acquired knowledge and skills.

(2) ¹The examination questions must be unambiguously comprehensible, free of contradictions, clearly answerable and suitable for determining the knowledge of the examination candidates to be tested in accordance with paragraph 1 sentence 2. ²Iterations of the same examination questions (including answer options) are permissible. ³Deduction of points within an examination task is not permitted.

(3) If the examiner - according to the faculty or degree program-specific design of the specific answer selection procedure - is not also the task creator, but the examiner's role is shifted from the examiner responsible according to the examination regulations to another examiner, namely the task creator, the following paragraphs 4 to 9 shall also apply.

(4) ¹The examiner selects the examination material, formulates the questions, determines the answer options and draws up the evaluation rules and the evaluation scheme in accordance with paragraph 6. ²The requirements for passing the examination are to be determined in advance. ³Before the examination, the examiner conducts a review process in which the content and form of the questions are proofread by a second examiner.

(5) ¹The examiner may also create a pool of equivalent exam questions from which the exam candidates each receive different exam questions to answer. ²The assignment is done by random selection. ³The equivalence of the examination questions must be ensured.

(6) ¹The examination is passed if the examination candidate has achieved at least 60 percent of the total achievable points. ²If the overall average of the points achieved in an examination minus 12 percent of the overall mean is below 60 percent but above 50 percent of the total achievable points, the pass mark is calculated according to this sliding clause. ³A grading scheme that exclusively sets an absolute pass mark is not permitted.

(7) ¹The examination performances are to be evaluated as follows: If the minimum number of attainable points required to pass the examination has been achieved, the grade shall be as follows.

| | |
|-----------------|--|
| "very good " | if at least 75 percent, |
| "good " | if at least 50 but less than 75 percent, |
| "satisfactory " | if at least 25 but less than 50 percent, |
| "sufficient " | if no or less than 25 percent |

of the points attainable beyond this have been achieved. ²When calculating the scores, 0.5 values are interpreted in favor of the examination candidate. ³If the minimum number of points required to pass the examination has not been achieved, the grade will be "insufficient (5.0)".

(8) ¹If the assessment of examination results reveals a noticeable accumulation of errors in the answers to individual examination question, the examiner shall review the examination question concerned without delay and before the announcement of the examination results to determine whether they are incorrect in terms of the requirements in accordance with paragraph 2 sentence 1. ²The tasks shall be analyzed post hoc. ³Difficulty index, discriminatory power index, reliability and distractor analysis provide indications of the quality of the questions set. ⁴If the review reveals that individual examination questions are incorrect, these must be reassessed or not taken into account when determining the examination result.

⁵The number of examination questions to be taken into account in determining the examination result is reduced accordingly. ⁶The reduction in the number of examination questions after publication of the results may not be to the disadvantage of an examination candidate. ⁷If the number of points attributable to the examination questions to be eliminated exceeds 20 percent of the total achievable points, the examination as a whole must be repeated. ⁸This also applies if only part of an examination performance is to be performed using the answer-choice method.

(9) If an examination performance consists only partially of examination items in the answer-choice procedure, this paragraph, with the exception of paragraph 8, sentences 7 and 8, applies only to the part of the examination prepared in the answer-choice procedure.

§ 14

Exam language

Module examinations and, if applicable, their examination elements are usually conducted in English.

§ 15

Registration and admission to exams

(1) ¹Prior to admission to a module examination, it is checked whether a right to examination exists. ²Admission to and taking of a module examination shall be granted if the examination candidate is enrolled in the relevant degree program at the University of Cologne or is admitted as a second student, has registered for the respective module examination in due time according to paragraph 4 and, if applicable, fulfills further requirements according to paragraph 2 and there is no reason for refusal according to paragraph 3.

(2) ¹Admission to a module examination may be linked to proof of certain prerequisites. ²If these prerequisites are coursework, they serve the acquisition of competencies and the assessment of learning status for teachers and students. ³They remain ungraded. ⁴If course work requires attendance at a course for which regular attendance is not required in accordance with § 9, paragraph 4, students shall, in justified exceptional cases, be allowed to take an alternative coursework that does not require attendance at the course, provided that this is suitable for promoting the acquisition of competencies and for assessing learning status in a comparable manner. ⁵Course credit is generally provided in the following formats: Electronic learning assessments, essays, exercises, homework, short presentations, protocols, reviews, test exams, thesis papers, and similar formats. ⁶The respective requirements for admission to a module examination are shown in the annexes.

(3) ¹Admission to a module examination is to be denied if the prerequisites according to paragraph 1 or paragraph 2 are not fulfilled, if the module examination in the same or a recognizable equivalent module has already been passed at the University of Cologne, or if a deadline for repetition has been missed. ²Admission to a module examination shall also be denied if the examination candidate has definitively failed an examination required by the examination regulations or has lost the right to take the examination in the chosen study program at a university within the scope of the Basic Law; this shall apply accordingly to courses of study which have a considerable proximity in terms of content to the previous study program. ³In addition, admission to an examination shall be denied if an examination candidate has been granted leave of absence pursuant to § 48 (5) HG, unless one of the exceptional cases specified in § 48 (5) sentence 4 and sentence 5 HG applies.

(4) ¹Registration is required for each module examination; without registration, there is no entitlement to participation in or assessment of the examination performance. ²As a rule, registration for a module examination must take place no later than six weeks before the examination date. ³Notwithstanding this, § 20 shall apply.

(5) ¹The examination dates must be announced in a suitable form at the start of the lecture period, but no later than nine weeks before the examination date, by posting or on the Internet. ²Notwithstanding this, the following applies: In the case of oral module examinations, the examination periods must be named at the beginning of the lecture period and the specific date at the latest two weeks before the module examination. ³Students who are admitted to a module exam

are entitled to attend a published examination date, except in cases of force majeure. ⁴Notwithstanding the foregoing, § 20 (7) shall apply.

(6) At least two timely examination dates are offered for the completion of an examination performance.

(7) Students who are enrolled in more than one study program at the same time and who wish to take a module exam that is a component in more than one of these study programs must specify in which study program they are taking the module exam when registering for that module exam.

(8) Examinations on the content of a particular course are offered over the period of three semesters. ²Registration for the first attempt at an examination must take place no later than the fourth semester in modules in which attendance at the course is scheduled for the first subject semester in accordance with Annex 2. ³Otherwise, the examination candidate loses the right to take the examination, unless they prove that they are not responsible for missing the deadline. ⁴This deadline may be extended in accordance with § 64 (3a) HG.

§ 16

Cancellation, tardiness and withdrawal from examinations

(1) ¹The deadlines for withdrawal from the module examinations shall be announced by the examination committee at least nine weeks before the examination date by posting a notice or on the Internet in a suitable form. ²As a rule, an examination candidate may withdraw from the module examination no later than two weeks before the respective examination date without giving reasons.

(2) ¹If an examination candidate does not take part in a module examination set in terms of time and place without a valid reason, or if he or she withdraws from the module examination without a valid reason after it has begun, the examination performance shall be assessed as "insufficient (5.0)" or "failed". ²The same applies if an examination performance is not completed within the specified processing time. ³§ 19 (1) applies accordingly.

(3) ¹If an examination candidate misses the participation in a module examination or withdraws from the module examination after it has started, the chairperson of the examination committee may, if there are valid reasons, refrain from grading the examination performance as "insufficient (5.0)" or "failed". ²The same applies if an examination performance is not completed within the specified processing time. ³The reasons asserted for the default or withdrawal must be notified to the chairperson of the examination committee immediately in writing or electronically and must be made credible. ⁴In case of illness, a medical certificate must be submitted. ⁵In cases of doubt, the submission of a confidential medical certificate may be requested; the costs will be borne by the university. ⁶The same applies in the case of proven illness of a child to be cared for by an examination candidate or of a spouse to be cared for a registered partner, a relative in the direct line and a relative by marriage within the first degree.

§ 17

Compensation for disadvantages and protective provisions

(1) The special concerns of students with disabilities, chronic or mental conditions, and students who are subject to maternity protection regulations shall be taken into account to ensure their equal opportunities.

(2) ¹If an examination candidate can credibly demonstrate that he or she is unable to participate in a module examination in the intended form or to the intended extent due to prolonged or permanent illness or disability, he or she will be granted compensation for a disadvantage upon written or electronic application to the chairperson of the examination committee. ²For this purpose, the submission of a specialist medical certificate may be required. ³This applies accordingly with regard to deadlines and dates as well as obligations to participate in courses and coursework to be completed.

(3) ¹The use of the protective provisions according to the maternity protection regulations as well as according to the deadlines of the Federal Parental Allowance and Parental Leave Act in the respective valid version are made possible upon application; in these cases, taking module examinations is possible despite the leave of absence. ²If a candidate can credibly demonstrate that she is unable to participate in a module examination in the intended form or to the intended extent due to maternity protection regulations, she will be granted compensation for disadvantages upon written or electronic application to the chairperson of the examination committee. ³For this purpose, the submission of a specialist medical certificate may be required. ⁴This applies accordingly with regard to deadlines and dates as well as obligations to participate in courses and academic achievements. ⁵The application must be made immediately after the conditions have arisen.

(4) ¹Special concerns arising from the need for care or maintenance of the spouse, the registered partner, a relative in the direct line or a relative by marriage in the first degree shall be taken into account appropriately, in particular with regard to deadlines and dates as well as obligations to attend courses. ²The application must be submitted immediately after the prerequisites have occurred.

(5) ¹The applications according to paragraphs 1 to 4 are to be comprehensively justified by the examination candidate, providing suitable evidence. ²Applications must be submitted to the chairperson of the examination committee within a reasonable period of time prior to the performance of the examination. ³Insofar as a change in the illness or disability is not to be expected, the disadvantage compensation should apply to all

examinations to be taken in the course of the studies as well as the acquisition of participation requirements.

§ 18

Assessment of examination performance

(1) ¹Examination performances are graded by the examiners or marked with "pass" or "fail" grade. ²The following grades are to be used:

1 = very good: an excellent performance;

2 = good: a performance significantly above the average requirements;

3 = satisfactory: a performance that meets average requirements;

4 = sufficient: a performance that still meets the requirements despite its shortcomings;

5 = insufficient: a performance that no longer meets the requirements due to considerable deficiencies.

³By lowering or raising the individual grades in steps of 0.1, intermediate values are formed for differentiated assessment. ⁴The grades 0.9 and below; 4.1 to 4.9 and 5.1 and above are excluded. ⁵An examination performance is passed if it has been graded "sufficient (4.0)" or better or has been assessed as "passed".

(2) ¹Examination performances with which this study program is completed, and examination performances in re-examinations for which no compensation option is provided in the event of a final failure, as well as the Master's thesis are evaluated by at least two examiners; the appointment is made by the chairperson of the examination committee. ²If a graded examination performance is evaluated by two or more examiners, the grade of the examination performance results from the arithmetic mean of the individual evaluations. ³If, in the case of written examinations based on the two-examiner principle, the difference between the individual grades is more than 1.0 grade level or if only one of the two individual grades is " (5.0)", the chairperson of the examination committee shall appoint a third examiner. ⁴In this case, the grade is calculated from the arithmetic mean of the three individual grades. ⁵If the average is worse than "sufficient (4.0)", the examination performance is to be assessed as "sufficient (4.0)" in deviation from the arithmetic mean, if two individual assessments are sufficient (4.0)" or better. ⁶If two individual evaluations are "insufficient (5.0)", the examination performance is to be evaluated as "insufficient (5.0)", deviating from the arithmetic mean.

(3) If a written examination performance that is graded "pass" or "fail" is graded by two examiners, the chairperson of the examination committee shall appoint a third examiner to determine the final grade if the two examiners' grades differ.

(4) ¹In the case of combined forms of examination in accordance with § 12 (6), an overall assessment of the examination performance takes place. ²In the case of grading, the grade is shown in accordance with paragraph 1.

(5) If a module examination is composed of several examination elements, the assessment is carried out in accordance with the provisions shown in the annexes.

(6) *unoccupied*

(7) ¹The overall grade of the study program is calculated as the weighted arithmetic mean of the module grades and the grade of the module Master's thesis according to the weighting shown in the annexes. ²The preliminary overall grade of the study program is calculated as the weighted arithmetic mean of the existing grades of the successfully completed or recognized modules. ³If more modules are completed than specified in these examination regulations, the passed examination results from the compulsory modules and the passed examination results from compulsory elective modules are used to calculate the overall grade in chronological order according to the examination date stored in the campus management system. ⁴The remaining passed elective modules are shown as additional examinations on the Transcript of Records.

(8) ¹Grades are shown with one decimal place and are used in this form for further calculations; all other decimal places are deleted without rounding. ²In the Transcript of Records, the overall grade of the program is shown with two decimal places. ³All other decimal places are deleted without rounding.

(9) Scores, which are averaged values, are: from 1.0 to

1.5 = very good;

from 1.6 to 2.5 = good;

from 2.6 to 3.5 = satisfactory;

from 3.6 to 4.0 = sufficient;

above 4.0 = inadequate.

(10) If all grades according to paragraph 9 are "very good" and the weighted average

of the grades according to the annex is 1.3 or better, the overall grade "*with distinction*" is awarded.

§ 19

Announcement of the examination results

(1) ¹The assessment of examination performances is usually announced to the examination candidates within eight weeks by posting the assessment information in the campus management system.

²If there is a deviation from this regulation, the reasons must be recorded. ³The result of an oral examination will be communicated to the examination candidate after the examination.

(2) The notification of the final failure of an examination or of a failed Master's thesis will be formally sent to the examination candidate at the postal address stored in the campus management system or electronically and will be accompanied by instructions on how to appeal.

§ 20

Repetition of module examinations

(1) ¹Module examinations that have not been passed can be repeated. ²The number of examination attempts per module may be limited to three, without prejudice to the provisions of § 21 (12). ³Further details are regulated by the provisions in the annexes. ⁴With regard to all modules of the Master's program in which the number of examination attempts is limited to three, there are a total of two additional examination attempts. ⁵In addition, examination candidates who have earned at least 90 credit points receive one additional examination attempt. ⁶If an examination is failed after exhausting the two additional examination attempts and, if applicable, the further examination attempt according to sentence 5, the course of study has been definitively failed with the consequence of exmatriculation from the course of study. ⁷The additional examination attempts according to sentences 4 and 5 do not apply to the repetition of the Master's thesis and the final colloquium.

(2) ¹If an examination candidate has failed a module examination for which the number of examination attempts is limited to three in accordance with Paragraph 1, Sentence 2, for the third time, the chairperson of the examination committee will inform the candidate in writing or electronically whether it is possible to take additional examination attempts for this examination in accordance with Paragraph 1, Sentences 4 and 5. ²If the examination candidate is subsequently entitled to another additional examination attempt pursuant to paragraph 1 sentence 5, he or she shall receive separate notification of this. ³In the case of additional examination attempts, the module examination must be successfully taken no later than two years after receipt of the notification pursuant to sentence 1 or sentence 2. ⁴If this module examination is not offered at least twice during this period, the deadline is extended by a further year. ⁵If the deadline is missed for reasons for which the examination candidate is responsible, the module examination is definitively failed with the consequence of exmatriculation from the degree program.

(3) The following applies to additional examination attempts in compulsory elective modules: If an examination candidate has failed a module examination in a compulsory elective module for which the number of examination attempts is limited to three in accordance with paragraph 1, sentence 2, for the third time, additional examination attempts must be taken in the same compulsory elective module.

(4) Additional examination attempts can only be granted for a module examination if none of the examination attempts in the module in question was failed due to deception or a breach of regulations in accordance with § 24.

(5) ¹Before starting a first additional examination attempt according to paragraph 1, it is strongly recommended to take advantage of counseling opportunities. ²For this purpose, the examination candidate receives a written or electronic invitation to counseling, which also provides information about the available counseling options.

(6) ¹If a module examination is composed of several examination elements, the following applies:

All examination elements must be evaluated with "passed" or with "sufficient (4.0)" or better. All examination elements of the module examination graded with "insufficient (5.0)" or "failed" must be repeated. Paragraphs 1 to 4 apply accordingly to examination elements.

(7) In the case of repeat examinations, the Chairperson of the Examination Board may, at the request of the examiner, determine a different examination form or different versions of the respective examination form.

(8) In the case of re-examinations, the deadlines pursuant to § 15 (4) and (5) may be deviated from in justified cases.

(9) The repetition of a master's thesis is carried out according to § 21 (12).

(10) The repetition of passed module examinations is excluded.

§ 21

Master thesis module

(1) ¹The Master's thesis is an examination in the form of an independently written piece of work, which is intended to show that the examination candidate is able to scientifically work on and reflect on a thematically limited problem from the subject area of the study program using the required methods within a specified period of time.

(2) ¹The Master's thesis is written during the course of study. ²30 credit points are awarded for the master's thesis. ³The requirements for admission to the master's thesis are shown in the annexes.

(3) unoccupied

(4) ¹In accordance with §23 (3), the Chair of the Examination committee commissions an examiner to set the topic of the Master's thesis and appoints a further assessor as a second assessor; in exceptional cases, for example in the case of externally supervised Master's theses, the external supervisor may be appointed as a third assessor, provided that he or she meets the requirements in accordance with §65 (1) HG.

²The examination candidate has the right make suggestions regarding the topic and the choice of examiner. ³The topic is communicated to the examination candidate in writing or electronically by the chairperson of the examination committee, stating the deadline by which the Master's thesis must be submitted at the latest. ⁴The date of issue of the topic is to be recorded. ⁵The topic can be returned once within four weeks of issue.

(5) ¹The processing time for the master's thesis is a maximum of 6 months starting with the issue of the topic. ²The content and scope of the topic of the master's thesis must be such that it can be completed within the period specified in sentence 1. ³Upon justified written or electronic application, the chairperson of the examination committee may grant a grace period of a maximum of four weeks; the application must be submitted to the examination office before the deadline expires. ⁴Such an individual case is to be assumed in particular if there is a considerable restriction of performance relevant to the examination, which must be proven, or in the case of circumstances which considerably impair the examination candidate in taking the examination, for which he or she is not responsible and which are directly linked to the content of the Master's thesis. ⁵The decision on the existence of a justified individual case is the responsibility of the chairperson of the examination committee. ⁶In the case of a decision in accordance with the last half-sentence of sentence 5, the chairperson shall hear the person who suggested the topic before making a decision.

(6) ¹The master thesis must be written in English.

(7) ¹The provisions of good scientific practice apply to the preparation of the master's thesis. ²The master's thesis may not have been submitted in the same or similar form as part of another examination. ³If this is violated, the thesis is considered to be graded as "insufficient (5,0)". ⁴ The decision is made by the examination committee.

(8) ¹The master thesis contains a list of the aids used. ²In addition, a declaration with the following wording must be enclosed: "I hereby declare on oath that I have written this thesis independently and without the use of other than the stated aids. ³All passages taken verbatim or in spirit from published and unpublished external writings are identified as such. ⁴The thesis has not yet been submitted in the same or similar form as part of another examination." If the Master's thesis involves the acquisition of raw data or the analysis of such data, or if the reproducibility of the results presented in the Master's thesis requires the availability of data analyses, experimental protocols or sample material, the following sentence must be added to the declaration: "I affirm that raw data, data analyses, experimental protocols or sample material are secured in accordance with the principles of good scientific practice and are accessible to the head of the working group in which the Master's thesis was conducted." ⁵If the affirmation in lieu of an oath was made falsely, the legal consequences according to the Criminal Code may apply.

(9) The master's thesis must be submitted to the relevant examination office in due time in electronic form (PDF/A only); the date of submission must be recorded on file.

(10) ¹The assessment of the Master's thesis is usually announced to the examination candidate within eight weeks after submission of the thesis by posting the assessment information in the campus management system. ²If this regulation is deviated from, the reasons are to be put on record.

(11) ¹A master's thesis graded "insufficient (5.0)" or considered deficient can be repeated once with a new topic. ²The application for the repetition must be made within 6 months. ⁶A second repetition of a failed master thesis is excluded. ⁷If a master's thesis is not passed after one repetition, the course of study is definitively not passed. ⁸The repetition of a passed master thesis is excluded.

(12) ¹The notice of failure of the Master's thesis will be formally sent to the examination candidate by the chairperson of the examination committee to the postal address stored in the campus management system or electronically. ²The decision must be accompanied by instructions on how to appeal.

(13) ¹The second part of the module "Master's thesis" is a final colloquium. ²6 credit points are awarded for the final colloquium. ³The final colloquium of the examination candidate is usually attended by the first examiner and the other examiner of the Master's thesis as examiners as well as an expert assessor as keeper of the minutes. ⁴If a third examiner has been appointed, he or she may participate in the final colloquium. ⁵If the Master's thesis is carried out externally and the supervisor has not been appointed as an examiner, this supervisor should participate in the final colloquium in an advisory capacity. ⁶Students of the same study program should be admitted as audience members upon request of the candidate. ⁷Members of the institute where the Master's thesis was carried out and members of the Faculty of Mathematics and Natural Sciences may be admitted as audience by the examiners upon request, provided that the examination candidate does not object. ⁸The participation of auditors does not extend to the discussion and announcement of the examination result. ⁹The final colloquium can be held at the earliest 2 working days after receipt of the expert assessments for the master's thesis by the examination office and only if the master's thesis is assessed with at least "sufficient (4.0)" will take place. ¹⁰The final colloquium is the last examination of the study program. ¹¹As a rule, it should take place no later than two weeks after completion of the Master's thesis evaluation process. ¹²The final colloquium lasts at least 45 minutes, at most one hour. ¹³It begins with a 20-minute presentation by the examination candidate in English on the most important results of his or her Master's thesis. ¹⁴This is followed by a discussion between the examiners and the examination candidate about the scientific and methodological-technical context of the Master's thesis and the classification of the Master's thesis in the overall context. ¹⁵Each examiner proposes a grade. ¹⁶The overall grade is calculated as the arithmetic mean of the proposed grades. ¹⁷Only the first decimal place after the decimal point is taken into account.

¹⁸A record of the essential contents of the final colloquium and the examination result must be prepared. ¹⁹A failed final colloquium can be repeated once. ²⁰If the repetition is also not passed, the study program is definitively not passed.

§ 22

Examination Committee (Der Prüfungsausschuss)

(1) For the organization of the examinations of the study programs regulated by these Regulations and the tasks assigned by these Regulations, the Faculty of Mathematics and Natural Sciences elects an Examination committee upon the proposal of the Department of Biology.

(2) The Examination Committee is composed of the following 12 voting members:

1. the chairperson from the group of university professors,
2. 6 further members from the group of university professors, whereby professors from each study program should be represented,
3. 2 members from the group of academic employees,
4. 1 member from the group of employees in technology and administration,
5. 2 members from the group of students.

(3) The Audit Committee elects a deputy chairperson from among the members in accordance with paragraph 2 no. 2.

(4) ¹An alternate shall be elected for each of the members pursuant to paragraph 2 nos. 2 to 5. ²The deputies shall take action if the members from the relevant group are prevented from attending.

(5) The Chairperson may invite other persons, in particular deputy members, to attend meetings of the Examination Committee, provided that this appears to be appropriate and the majority of the voting members present do not object.

(6) ¹The members and their deputies according to paragraph 2 nos. 2 to 5 shall be elected by the Inner Faculty of the Faculty of Mathematics and Natural Sciences separately according to groups. ²The groups have a right of nomination. ³The members from the group of university professors, from the group of academic employees and from the group of employees in technology and administration are elected for three years, the members from the group of students for one year. ⁴Re-election is permitted. ⁵The term of office of an deputy member ends with the term of office of the corresponding member. ⁶If a member or an alternate member resigns in accordance with

paragraph 2 nos. 2 to 5 prematurely, a successor shall be elected for the remaining term of office.

(7) ¹The Examination Committee has a quorum if the chairperson or his/her deputy and at least three other members from the group of university lecturers and two other members with voting rights are present. ²If the deputy chairperson chairs a meeting because the chairperson is unable to attend, his or her deputy shall attend the meeting as a voting member in accordance with paragraph 4. ³The Audit Committee passes resolutions by a simple majority of those present and entitled to vote. ⁴In the event of a tie, the chairperson has the casting vote. ⁵The members of the examination board from the group of technical and administrative staff only have the right to vote in matters of teaching if they perform corresponding functions at the university and have special experience in the respective area; such experience is to be assumed in particular if the staff member fulfills the examiner status in accordance with § 65 (1) sentence 2 HG. ⁶The chairperson decides on the existence of these requirements at the beginning of the member's term of office and, in cases of doubt, the Rectorate. ⁷The members from the group of students only vote on pedagogical-scientific decisions, in particular on the assessment and recognition of examinations, the determination of examination tasks and decisions on objections in this regard, if they fulfill the examiner status in accordance with § 65 (1) sentence 2 HG.

(8) ¹The examination committee shall ensure that the provisions of these regulations, including their annexes, are complied with. ²In particular, it decides on appeals against decisions made in examination procedures. ³It reports regularly, at least once a year, to the Faculty of Mathematics and Natural Sciences on the development of Master's examinations and study times, discloses the distribution of overall grades and, if necessary, makes suggestions for amendments to these regulations.

(9) ¹The meetings of the Examination Committee are not public. ²The members and their deputies are subject to official secrecy. ³If they are not in public service, they shall be sworn to secrecy by the chairperson.

(10) ¹The members of the examination committee and their deputies have the right to be present at examinations. ²The right to be present does not extend to the discussion of the examination results.

(11) The Examination Office of the Department of Biology of the Faculty of Mathematics and Natural Sciences is available to the Examination Committee for the organizational handling of the examination procedures.

(12) ¹The Chairperson of the Examination Committee, or their deputy if they are unable to attend, represents the Examination Committee, convenes the meetings of the Examination Committee, chairs them and implements the resolutions passed there. ²The Examination Committee may delegate the completion of its tasks to the chairperson for all regular cases. ³In cases of urgency, the chairperson may conduct a vote by circulation. ⁴The chairperson may make decisions that cannot be postponed in place of the examination committee; the examination committee must be informed of this immediately; the examination committee may revoke the decision; rights of third parties that have already arisen remain unaffected. ⁵The examination committee reserves the right to decide on appeals. ⁶Minutes shall be taken for each meeting of the examination board.

(13) The Chairperson of the Examination Committee shall announce instructions, dates and deadlines as well as other notifications of the Examination Committee that do not only affect individual persons with legally binding effect by means of a notice board or other suitable means.

§ 23

Examiners, assessors, electronic verification

(1) ¹The examiners are appointed from the group of university professors and independent group leaders as well as from the group of members and affiliates of the Faculty of Mathematics and Natural Sciences, the Faculty of Medicine, the Max Planck Institutes for Plant Breeding Research, Biology of Aging and Metabolism Research and the Research Center Jülich according to § 65 (1) HG. ²Examinations may only be evaluated by persons who themselves possess at least the qualification to be established by the examination or an equivalent qualification. ³Retired examiners may be reappointed as examiners for a period of one year after the end of the semester in which they left the University of Cologne or the academic institutions pursuant to sentence 1, or were dismissed or retired. ⁴Only persons who have obtained a relevant degree at least at master's level or an equivalent qualification at a university may be appointed as assessors.

(2) ¹The examination committee appoints the examiners and the assessors. ²It may delegate the appointment to the chairperson. ³The appointment of examiners and assessors must be recorded in the files. ⁴Notwithstanding the provision in sentence 1, the following applies: A lecturer is the examiner of the course for which he or she is responsible and for which he or she is responsible, unless the examination board appoints an examiner otherwise.

(3) ¹The examination committee appoints the examiners responsible for the Master's thesis module from among the professors,

²An independent group leader is employed full-time at a scientific institution, conducts independent research and heads his or her own research group. He or she has staff responsibility, budget responsibility and the necessary basic equipment or access to the infrastructure and all necessary resources. He or she has been selected in a competitive process and is in the process of qualifying for scientific leadership positions, especially for appointment to a professorship.

associate professors, honorary professors, junior professors and private lecturers; independent group leaders can be appointed as responsible examiners. ²As a rule, the examiners responsible for the subject are appointed from among the lecturers of the elective modules of the first year of study in accordance with the study plans (Anne 2). ³In justified exceptional cases, the examination committee decides on the appointment of further examiners who fulfill the requirements according to § 65 (1) HG. ⁴It may delegate the appointment to the chairperson. ⁵Examiners who have resigned, been dismissed or retired may be reappointed as examiners for the Master's thesis for a period of one year after the end of the semester in which they left the University of Cologne. ⁶The examination board may extend this period upon justified application. ⁷It may delegate this decision to the chairperson. ⁸University lecturers from a university linked by a partnership or cooperation agreement may be appointed as topic examiners for a Master's thesis upon justified application by the university lecturers representing a subject. ⁹The appointment of examiners for the Master's thesis must be recorded in the files.

(4) ¹The examiners shall name the working materials and aids permitted for the examinations they conduct and shall announce these in a suitable manner in good time, at the latest when the date of the examination in question is announced. ²If no agreement can be reached, the examination committee shall decide.

(5) ¹Upon general and announced decision of the examination committee, written examination• can be checked electronically for unmarked text transfers. ²In this case, the examination candidates are obliged to submit the written examination• also electronically and to ^}•~|^ that the contents of the written and electronic versions { @&@ ³The electronic |^çã, ä Áæ&| äæ &Á, ã@ sentence 1 also includes the use of written examination |^•~|^ for the purpose of comparison with subsequent written examination |^•~|^ of third parties, provided that there is a factual connection between the examination |^•~|^ . ⁴The resolution pursuant to sentence 1 must regulate,

- a) which examinations can be checked electronically,
- b) whether the Examination Committee makes use of an administrative assistant and, if so, who that assistant is,
- c) in which file format, in which way and at which place the electronic version has to be submitted,
- d) according to which criteria the examinations to be reviewed are selected and
- e) how long the electronic versions may be used.

⁵Notwithstanding sentence 1, electronic verification is always permissible in the event of justified initial suspicion of cheating. ⁶Notwithstanding sentence 4, use shall end at the latest at the same time as the retention period for the examination file pursuant to § 26 (4).

⁷Without the consent of the examination candidate, any use of the electronic version by examiners or the examination committee other than for the purpose of assessing or reviewing examination results is not permitted. ⁸The result of an electronic examination may only form the basis of an incriminating examination decision if it has been confirmed by the responsible examiners.

(6) ¹Examiners are independent of instructions in their examination activities. ²They and, if applicable, the assessors are subject to official secrecy. ³If they are not in public service, they must be sworn to secrecy by the chairperson of the examination committee.

§ 24

Deception, breach of order

(1) ¹If an examination candidate attempts to influence the assessment of an examination performance by deception for his/her own or another's advantage, if he/she carries aids not permitted in the examination or commits scientific misconduct in the performance of the examination, he/she commits an act of deception. ²Non-approved aids can be confiscated by the invigilators after completion of the examination, which the examination candidate is entitled to terminate, with the consent of the examination candidate for the purpose of preserving evidence.

(2) ¹Depending on the severity of the act of deception under paragraph 1, the Examination Committee shall pronounce one of the following sanctions against the examination candidate:

- a) a warning;
- b) the examination candidate is ordered to repeat the examination to which the act of cheating relates;
- c) the examination to which the act of cheating relates shall be deemed to have been taken with "insufficient (5.0)" and "failed" respectively,
- d) the examination to which the act of deception relates is declared definitively failed;
- e) the examination candidate is excluded from taking further examinations, as a result of which the examination entitlement in the study program expires.

²A serious violation can be considered in particular in cases of the use of unauthorized aids, the (attempted) exertion of influence on the examiner or, in cases of plagiarism, in which sources are deliberately concealed by reformulating the original texts, rearranging the syntax or using synonyms. ³A particularly serious case can be considered in particular in the case of an elaborate use of technical

aids such as internet-enabled cell phones, in the case of repeated acts of cheating in different examinations, in the case of organized collaboration between several persons, in the case of taking over an entire work of another person as one's own work, in the case of falsification of scientific work or sabotage of examination work and the research activities of others.

(3) Particularly in the case of justified suspicion of plagiarism, the Examination Committee may also have further checks carried out - including electronic checks - without the consent of the examination candidates.

(4) As a consequence of an act of deception according to Paragraph 1, the relevant coursework shall be deemed not to have been completed.

(5) ¹Anyone who disturbs an examination can be warned by the respective examiners or invigilators. ²If the warnings are ineffective or if the disruption is serious, the examination candidate can be excluded from further performance of the examination. ³ In this case, the examination committee may assess the examination results as "insufficient (5.0)" or "failed". ⁴The reasons for the exclusion are to be recorded in file.

(6) ¹Before a decision is made by the examination committee, the examination candidate must be given the opportunity to be heard in court. ²The examination candidate must be informed of the decision in writing without delay, the reasons for the decision must be given, and the decision must be accompanied by instructions on how to appeal.

(7) ¹In addition, administrative offence proceedings may be initiated in accordance with § 63 (5) HG. ²It is also a misdemeanor to intentionally attempt to influence the result of an examination to someone else's advantage.

§ 25

Invalidation of examination results, revocation of the Master's degree

(1) ¹If the requirements for admission to an examination were not fulfilled without the candidate intending to deceive, and if this fact only becomes known after the certificate has been issued, this defect is remedied by passing the examination. ²If the examination candidate has intentionally obtained admission unlawfully, the examination committee shall decide on the legal consequences, taking into account the provisions of the Administrative Procedure Act of the State of North Rhine-Westphalia (VwVfG NRW).

(2) If an examination candidate has cheated in an examination performance and this fact only becomes known after the certificate has been issued, the Examination Committee may subsequently withdraw the assessment for that examination performance in which the examination candidate cheated, subject to the requirements of § 48 VwVfG NRW, and impose a sanction in accordance with § 24 appropriate to the seriousness of the cheating.

(3) The Master's degree may be revoked if it is found to have been obtained by deception or if essential requirements for the award have been erroneously considered to have been met.

(4) ¹The examination candidate must be given the opportunity to comment before a decision is made in accordance with paragraphs 1 to 3. ²The examination committee is responsible for the decision, which will make its decision in compliance with the provisions of the Administrative Procedure Act of the State of North Rhine-Westphalia (VwVfG NRW). ³A decision is excluded after a period of five years from the date of the certificate.

(5) ¹The incorrect certificate as well as all incorrect annexes will be confiscated and, if necessary, reissued. ²If the study program as a whole has been declared failed, the academic degree shall be withdrawn by the Faculty of Mathematics and Natural Sciences and the Master's certificate shall be confiscated.

§ 26

Examination file, inspection of files

(1) ¹An examination file is kept by the examination committee for each examination candidate. ²The examination file documents in particular the examination attempts, the examination papers, the related opinions of the examiners, the examination protocols, the examination results, grade calculations and copies of the certificates and diplomas. The examination file is kept in writing or in full or in part electronically.

(2) An examination candidate may obtain information about the status of the examination results at any time within the scope of organizational possibilities.

(3) ¹After the announcement of an examination result, each examination candidate or his or her authorized representative shall be granted access to his or her written performance in this examination and the related reports and correction notes of the examiners as well as to the minutes of oral examinations upon written or electronic request. ²Within the scope of this inspection, the examination candidate or his or her authorized representative must be given the opportunity to make either copies or photographs of the documents; any sample solutions that may have been issued may not be copied or photographed since they are not part of the examination candidate's examination file. ³The further procedure for inspection, including an appropriate deadline for the inspection request, is regulated by the examination committee. ⁴After expiry of the specified deadlines, inspection is generally only possible if an examination candidate is demonstrably not responsible for missing the deadline. ⁵As a rule, there is no further right to information.

(4) ¹With the exception of the provisions in sentence 2, the examination file shall be kept until the end of the fifth year following exmatriculation from this study program and

subsequently offered to the responsible archive; if the archive refuses acceptance, it must be destroyed. ²Written examination documents including associated evaluation documents are offered to the archive two years after the announcement of the evaluation, provided no legal dispute is pending; this applies accordingly to electronic versions; if the archive refuses acceptance, they must be destroyed. ³The academic degrees conferred and a catalogued collection of the certificates and documents awarded may be kept in a register until the expiry of the fiftieth year following the completion of studies; sentence 1, second half-sentence shall apply accordingly.

(5) ¹'Correction notes and examiners' reports of which a student becomes aware may not be passed on to third parties or published if they are protected by copyright. ²The thesis prepared by a student may only be published with the corresponding consent if a blocking notice has been agreed. ³This is without prejudice to justified interests in legal protection, for example in the form of disclosure to a commissioned lawyer.

§ 27

Degree and graduation documents

(1) ¹The study program is successfully completed when all required examination achievements have been passed and the credit points according to § 5 have been acquired. ²A certificate is issued for the successful completion of studies. ³The certificate is signed by the chairperson of the examination committee and contains the following information

- a) the name of the study program
- b) the grades of all modules,
- c) the topic of the master thesis,
- d) the overall grade.

⁴The indication of grades is made in words and numerically. ⁵It is issued with the date of the day on which the last examination performance was performed or recognized. ⁶In addition, an English translation of the certificate is issued. ⁷The German version is legally binding.

(2) ¹Together with the certificate, the student receives the Master's degree certificate, which certifies the award of the degree according to § 3; this certificate bears the date of the certificate. ²The Master's certificate is signed by the Dean of the Faculty of Mathematics and Natural Sciences and by the Chairperson of the Examination Committee and bears the seal of the Faculty. ³In addition, an English translation of the certificate is issued. ⁴The German version is legally binding.

(3) ¹Together with the certificate and the Master's degree certificate, a Diploma Supplement is issued in German and English, which provides information on the subject profile of the completed degree program and the academic and professional qualifications acquired with the degree. ²In addition, upon written or electronic request, a grade report will be issued, which allows the relative classification of the overall grade in the examination results in the study program. ³The grade table is formed from the final grades of the two semesters preceding the date of issue of the certificate. ⁴The Diploma Supplement also describes the study program completed and provides information about the faculty. ⁵Part of the Diploma Supplement is the Transcript of Records.

(4) ¹If a student has failed or definitively failed to pass his or her studies or has dropped out, or if he or she changes universities, he or she will be issued, upon request, a certificate (Transcript of Records) of the examinations taken, the supplementary studies and achievements, the grades, and the credit points earned. ²If applicable, it must indicate that the studies have not been passed or have been definitively failed.

§ 28

Transitional provisions

(1) These regulations apply to all students who are enrolled at the University of Cologne for the first time from the winter semester 2023/2024 onwards, or who are re-enrolled after an interruption, for the Master's degree program regulated by these regulations, or who have been admitted as second students.

(2) ¹Students already enrolled in the MSc Biological Sciences at the University of Cologne prior to the winter semester 2023/2024 or admitted as second students may, upon application, continue their studies according to these regulations while having their previously completed examinations recognized and will be assigned to one of the study programs according to these regulations. ²The examination committee shall ensure that credit points already earned in modules that change in type or scope or are omitted can continue to be used to complete the degree program.

§ 29

Publication and entry into force

(1) These regulations are published in the Official Notices of the University of Cologne.

(2) These Regulations shall enter into force with effect from October 1, 2023.

Insofar as provisions of these regulations are inconsistent with the regulations of the resolution of the Rectorate of the University of Cologne on the regulation of aspects of examination law in accordance with the ordinance on coping with the consequences of the coronavirus SARS-CoV-2 epidemic on the university system

challenges (Corona-Epidemie-Hochschulverordnung), as amended from time to time, or the resulting resolutions of the responsible examination committee, these regulations and resolutions shall take precedence over the provisions of these regulations for their period of validity.

Issued on the basis of the resolution of the Inner 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

Annex 1.1

Specific Regulations for the Master of Science in Genetics and Biology of Aging and Regeneration of the Faculty of Mathematics and Natural Sciences of the University of Cologne

Explanation: In the 1st semester, four basic modules with 6 credit points each are to be completed (three lecture modules and one seminar module; two of the lecture modules are elective modules). In the 2nd and 3rd semester, two subject modules and two project modules with 12 credit points each are completed. A subject module can be replaced by a laboratory module (subject module [type 4]) upon request. In addition, a supplementary module (Elective Module) with 12 credit points must be completed (according to the study plan in the 1st to 2nd semester). The study program is completed with the module Master's thesis with 30 credit points and a final colloquium with 6 credit points in the 3rd and 4th semester.

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|--|------------------|---|--|---|--|
| MN-B-GA 1 | Lecture Principles of Molecular Genetics, Development and Aging [Basic Module] | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | P | 6 LP | | 7,5/100 |
| MN-B-A 2 | Seminar Modern Techniques and Approaches in Genetics, Aging and Regeneration Research [Basic Module] | none | Start: WiSe Cycle: annual Duration: 15 weeks | Seminar (TP, 20%) ² with Exercises (TP, 20%) ³ | none | Examination elements: 1 Type of examination: Presentation with written elaboration Duration: 20-30 minutes Language: english LP award: Passing of the examination element | 3 | P | 6 LP | | 7,5/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|---|------------------------------------|---|--|--|---|------------------|---|--|---|--|
| MN-B-B 1 | Lecture Advanced Biochemistry and Molecular Medicine [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | 12 LP | 7,5/100 |
| MN-B-C 1 | Lecture Computational Biology [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-E 1 | Lecture Ecology, Evolution and Environment [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | WP | 6 LP | | 7,5/100 |
| MN-B-N 1 | Lecture Neuroscience [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|---|--|---|--|
| MN-B-P 1 | Lecture Molecular Plant and Microbial Sciences [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-SM (type 1) | Subject Module (Type 1) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Written exam (50%); Unit (50 %) Duration: 1-2 hours (written exam) 20-30 min (presentation) Language: English LP award: Passing of all examination elements | 3 | WP | 12 LP | 24 LP | 12/100 |
| MN-B-SM (type 2) | Subject Module (Type 2) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: presentation (50 %); internship report (50 %) Duration: 20-30 min (presentation) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------------|--|------------------------------------|---|--|--|--|------------------|---|--|---|--|
| MN-B-SM (type 3) | Subject Module (Type 3) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50%); Internship report (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-SM [LM] (type 4) ¹ | Subject Module [Laboratory Module] (Type 4) [Advanced Module]. | none | Start: all year Duration: 7 weeks ⁵ | Project (TP 20%) ⁴ ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50%); Internship report (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-EM1 | Elective Module [Ergänzungsmo dul] | none | Start: all year Duration: Not possible to specify | Depending on the individual choice of the students | Depending on the individual choice of Students n | LP Allocation: Proof of participation | none | WP | 12 LP | | 0/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ¹ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|------------------------------------|--|---|--|---|---|------------------|---|--|---|--|
| MN-B-PM1 (Type 1) | Project Module [Emphasis Modul] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Internship report Language: English LP award: Passing of the examination element | 3 | WP | 12 LP | 24 LP | 3/100 |
| MN-B-PM1 (type 2) | Project Module [Emphasis Modul] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Lecture Duration: 20-30 min Language: English LP award: Passing of the examination element | 3 | WP | 12 LP | | 3/100 |
| MN-B-MT | Master Thesis [Emphasis Modul] | Successful completion of all other modules of the program. | Start: all year Duration: 7 months | Project | The evaluation of the Master's thesis with a grade of at least sufficient is a prerequisite for the final examination. Iloquium | Examination elements: 2 Type of examination: Master thesis (75 %); final colloquium (25 %) Language: english LP award: Passing of all examination elements | 2 | P | 36 LP | | 40/100 |

¹ No more than two of these modules may be supervised by the same examiner.

²The obligation to provide evidence of regular attendance at seminars results from § 9 (4) a).

³ The obligation to provide evidence of regular participation in exercises results from § 9 Paragraph 4 b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁴ The obligation to provide evidence of regular participation in projects arises from § 9 (4) b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁵ Preparation time prior to the official start of the module is not included.

ENGLISCH-NON-BINDING-VERSION

Annex 1.2

Specific Regulations for the Master of Science in Computational Biology at the Faculty of Mathematics and Natural Sciences of the University of Cologne

Explanation: In the 1st semester, four basic modules with 6 credit points each are to be completed (three lecture modules and one seminar module; one of the lecture modules is an elective module). In the 2nd and 3rd semester, two subject modules and two project modules with 12 credit points each are completed. A subject module can be replaced by a laboratory module (subject module [type 3]) upon request. In addition, a supplementary module (Elective Module) with 12 credit points must be completed (according to the study plan in the 1st to 2nd semester). The study program is completed with the module Master's thesis with 30 credit points and a final colloquium with 6 credit points in the 3rd and 4th semester.

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the Module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|---|--|---|--|
| MN-B-C 1 | Lecture Computational Biology [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | P | 6 LP | | 7,5/100 |
| MN-B-GA 1 | Lecture Principles of Molecular Genetics, Development and Aging [Basic Module] | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | P | 6 LP | | 7,5/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the Module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|---|--|---|--|
| MN-B-C 2 | Seminar Computational Biology [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Seminar (TP, 20%) ² with Exercises (TP, 20%) ³ | Unit | Examination elements: 1 Examination type: Portfolio Language: English LP award: Passing of the examination element | 3 | P | 6 LP | | 7,5/100 |
| MN-B-B 1 | Lecture Advanced Biochemistry and Molecular Medicine [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | 6 LP | 7,5/100 |
| MN-B-E 1 | Lecture Ecology, Evolution and Environment [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-N 1 | Lecture Neuroscience [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | WP | 6 LP | | 7,5/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the Module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|---|--|---|--|
| MN-B-P 1 | Lecture Molecular Plant and Microbial Sciences [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-SM (type 1) | Subject Module (Type 1) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Written exam (50%); Unit (50 %) Duration: 2 hours (written exam) 20-30 min (presentation) Language: English LP award: Passing of all examination elements | 3 | WP | 12 LP | 24 LP | 12/100 |
| MN-B-SM (type 2) | Subject Module (Type 2) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50 %); Portfolio (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁶ | Sum of credit points in the elective area | Weighting of the Module grade in the overall grade |
|------------------------------------|--|------------------------------------|--|--|--|--|------------------|---|--|---|--|
| MN-B-SM [LM] (type 3) ¹ | Subject Module [Laboratory Module] (Type 3) [Advanced Module]. | none | Start: all year Duration: 7 weeks ⁵ | Project (TP 20%) ⁴ ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50%); Internship report (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-EM1 | Elective Module [Ergänzungsmo dul] | none | Start: all year Duration: Not possible to specify | Depending on the individual choice of the students | Depending on the individual choice of Students n | LP Allocation: Proof of participation | none | WP | 12 LP | | 0/100 |
| MN-B-PM1 (Type 1) | Project Module [Emphasis Mo dul] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Internship report Language: English LP award: Passing of the examination element | 3 | WP | 12 LP | 24 LP | 3/100 |
| MN-B-PM1 (type 2) | Project Module [Emphasis Mo dul] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Lecture Duration: 20-30 min Language: English LP award: Passing of the Audit Element | 3 | WP | 12 LP | | 3/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the Module grade in the overall grade |
|------------------------------|--------------------------------|--|---|--|---|--|------------------|---|--|---|--|
| MN-B-MT | Master Thesis [Emphasis Modul] | Successful completion of all other modules of the program. | Start: all year Duration: 7 months | Project | The evaluation of the Master's thesis with a grade of at least sufficient is a prerequisite for the final examination. Iloquium | Examination elements: 2 Type of examination: Master thesis (75 %); final colloquium (25 %) Language: english LP award: Passing of all examination elements | 2 | P | 36 LP | | 40/100 |

¹ No more than two of these modules may be supervised by the same examiner.

² The obligation to provide evidence of regular attendance at seminars results from § 9 (4) a).

³ The obligation to provide evidence of regular participation in exercises results from § 9 Paragraph 4 b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁴ The obligation to provide evidence of regular participation in projects arises from § 9 (4) b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁵ Preparation time prior to the official start of the module is not included.

Annex 1.3

Specific Regulations for the Master of Science in Ecology, Evolution and Environment at the Faculty of Mathematics and Natural Sciences of the University of Cologne

Explanation: In the 1st semester, four basic modules with 6 credit points each are to be completed (two lecture modules, one seminar module and one tutorial module; one of the lecture modules is an elective module). In the 2nd and 3rd semester, two subject modules and two project modules with 12 credit points each are completed. A subject module can be replaced by a laboratory module (subject module [type 3]) upon request. In addition, a supplementary module (Elective Module) with 12 credit points must be completed (according to the study plan in the 1st to 2nd semester). The study program is completed with the module Master's thesis with 30 credit points and a final colloquium with 6 credit points in the 3rd and 4th semester.

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of the credit points in the Elective | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|---|--|--|--|
| MN-B-E 1 | Lecture Ecology, Evolution and Environment [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | P | 6 LP | | 7,5/100 |
| MN-B-E 2 | Seminar Ecology, Evolution and Environment [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Seminar (TP, 20%) ² | none | Examination elements: 1 Type of examination: Presentation Duration: 20-30 minutes Language: English LP award: Passing of the examination element | 3 | P | 6 LP | | 7,5/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁶⁸ | Sum of the credit points in the Elective | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|---|---|--|--|
| MN-B-E 3 | Tutorial Ecology, Evolution and Environment [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Exercise (TP, 20%) ³ | none | Examination elements: 1 Type of examination: Presentation Duration: 20-30 minutes Language: English LP award: Passing of the examination element | 3 | P | 6 LP | | 7,5/100 |
| MN-B-B 1 | Lecture Advanced Biochemistry and Molecular Medicine [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | 6 LP | 7,5/100 |
| MN-B-C 1 | Lecture Computational Biology [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | WP | 6 LP | | 7,5/100 |

| | | | | | | | | | | |
|-----------|--|------|---|---------|------|---|------|----|------|---------|
| MN-B-GA 1 | Lecture Principles of Molecular Genetics, Development and Aging [Basic Module] | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | 7,5/100 |
|-----------|--|------|---|---------|------|---|------|----|------|---------|

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁶ | Sum of credit points in the Elective | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|---|--|--------------------------------------|--|
| MN-B-N 1 | Lecture Neuroscience [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-P 1 | Lecture Molecular Plant and Microbial Sciences [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-SM (type 1) | Subject Module (Type 1) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Written exam (50%); Unit (50 %) Duration: 2 hours (written exam) 20-30 min (presentation) Language: English LP award: Passing of all examination elements | 3 | WP | 12 LP | 24 LP | 12/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁶ | Sum of the credit points in the Elective | Weighting of the module grade in the overall grade |
|------------------------------------|--|------------------------------------|---|--|--|--|------------------|---|--|--|--|
| MN-B-SM (type 2) | Subject Module (Type 2) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: presentation (50 %); internship report (50 %) Duration: 20-30 min (presentation) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-SM [LM] (type 3) ¹ | Subject Module [Laboratory Module] (Type 3) [Advanced Module]. | none | Start: all year Duration: 7 weeks ⁵ | Project (TP 20%) ⁴ ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50%); Internship report (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-EM1 | Elective Module [Ergänzungsmo dul] | none | Start: all year Duration: Not possible to specify | Depending on the individual choice of the students | Depending on the individual choice of Students n | LP Allocation: Proof of participation | none | WP | 12 LP | | 0/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁶⁸ | Sum of the credit points in the Elective | Weighting of the module grade in the overall grade |
|------------------------------|-------------------------------------|--|---|--|---|--|------------------|---|---|--|--|
| MN-B-PM1 (Type 1) | Project Module [Emphasis Module] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Internship report Language: english LP award: Passing of the examination element | 3 | WP | 12 LP | 24 LP | 3/100 |
| MN-B-PM1 (type 2) | Project Module [Emphasis Module] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Lecture Duration: 20-30 min Language: english LP award: Passing of the examination element | 3 | WP | 12 LP | | 3/100 |
| MN-B-MT | Master Thesis [Emphasis Module] | Successful completion of all other modules of the program. | Start: all year Duration: 7 months | Project | The evaluation of the Master's thesis with a grade of at least sufficient is a prerequisite for the final examination. Iloquium | Examination elements: 2 Type of examination: Master thesis (75 %); final colloquium (25 %) Language: english LP award: Passing of all examination elements | 2 | P | 36 LP | | 40/100 |

¹ No more than two of these modules may be supervised by the same examiner.

²The obligation to provide evidence of regular attendance at seminars results from § 9 (4) a).

³ The obligation to provide evidence of regular participation in exercises results from § 9 Paragraph 4 b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁴ The obligation to provide evidence of regular participation in projects results from § 9 (4) b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁵ Preparation time prior to the official start of the module is not included.

ENGLISCH-NON-BINDING-VERSION

Annex 1.4

Specific Regulations for the Master of Science in Neuroscience Program of the Faculty of Mathematics and Natural Sciences of the University of Cologne

Explanation: In the 1st semester, four basic modules with 6 credit points each are to be completed (two lecture modules, one seminar module and one tutorial module; one of the lecture modules is an elective module). In the 2nd and 3rd semester, two subject modules and two project modules with 12 credit points each are completed. A subject module can be replaced by a laboratory module (subject module [type 4]) upon request. In addition, a supplementary module (Elective Module) with 12 credit points must be completed (according to the study plan in the 1st to 2nd semester). The study program is completed with the module Master's thesis with 30 credit points and a final colloquium with 6 credit points in the 3rd and 4th semester.

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|--------------------------------------|------------------------------------|---|--|--|---|------------------|---|--|---|--|
| MN-B-N 1 | Lecture Neuroscience [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | P | 6 LP | | 7,5/100 |
| MN-B-N 2 | Seminar Neuroscience [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Seminar (TP, 20%) ² | none | Examination elements: 1 Type of examination: Presentation Duration: 20-30 minutes Language: English LP award: Passing of the examination element | 3 | P | 6 LP | | 7,5/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Compulsory elective module (WP), | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|----------------------------------|--|---|--|
| MN-B-N 3 | Tutorial Neuroscience [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Exercise (TP, 20%) ⁵ | none | Examination elements: 1 Type of examination: Presentation Duration: 20-30 minutes Language: English LP award: Passing of the examination element | 3 | P6 | 6 LP | | 7,5/100 |
| MN-B-B 1 | Lecture Advanced Biochemistry and Molecular Medicine [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | 6 LP | 7,5/100 |
| MN-B-C 1 | Lecture Computational Biology [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | WP | 6 LP | | 7,5/100 |

| | | | | | | | | | | |
|----------|--|----------|---|---------|------|--|------|----|------|---------|
| MN-B-E 1 | Lecture Ecology, Evolution and Environment [Basic Module]. | MN-B-E 1 | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | 7,5/100 |
|----------|--|----------|---|---------|------|--|------|----|------|---------|

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|--|------------------|---|--|---|--|
| MN-B-GA 1 | Lecture Principles of Molecular Genetics, Development and Aging [Basic Module] | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-P 1 | Lecture Molecular Plant and Microbial Sciences [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-SM (type 1) | Subject Module (Type 1) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Written exam (50%); Unit (50 %) Duration: 1 hour (written exam) 20-30 min (presentation) Language: English LP award: Passing of all examination elements | 3 | WP | 12 LP | 24 LP | 12/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------------|--|------------------------------------|---|--|--|--|------------------|---|--|---|--|
| MN-B-SM (type 2) | Subject Module (Type 2) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: presentation (50 %); internship report (50 %) Duration: 20-30 min (presentation) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-SM (type 3) | Subject Module (Type 3) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50%); Internship report (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-SM [LM] (type 4) ¹ | Subject Module [Laboratory Module] (Type 4) [Advanced Module]. | none | Start: all year Duration: 7 weeks ⁵ | Project (TP 20%) ⁴ ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50%); Internship report (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|------------------------------------|------------------------------------|--|--|--|--|------------------|---|--|---|--|
| MN-B-EM1 | Elective Module [Ergänzungsmo dul] | none | Start: all year Duration: Not possible to specify | Depending on the individual choice of the students | Depending on the individual choice of the students | LP Allocation: Proof of participation | none | WP | 12 LP | | 0/100 |
| MN-B-PM1 (Type 1) | Project Module [Emphasis Mo dul] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Internship report Language: english LP award: Passing of the examination element | 3 | WP | 12 LP | 24 LP | 3/100 |
| MN-B-PM1 (type 2) | Project Module [Emphasis Mo dul] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Lecture Duration: 20-30 min Language: english LP award: Passing of the examination element | 3 | WP | 12 LP | | 3/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁶ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|--------------------------------|--|---|--|---|---|------------------|---|--|---|--|
| MN-B-MT | Master Thesis [Emphasis Modul] | Successful completion of all other modules of the program. | Start: all year Duration: 7 months | Project | The evaluation of the Master's thesis with a grade of at least sufficient is a prerequisite for the final examination. Iloquium | Examination elements: 2 Type of examination: Master thesis (75 %); final colloquium (25 %) Language: english LP award: Passing of all examination elements | 2 | P | 36 LP | | 40/100 |

¹ No more than two of these modules may be supervised by the same examiner.

² The obligation to provide evidence of regular attendance at seminars results from § 9 (4) a).

³ The obligation to provide evidence of regular participation in exercises results from § 9 Paragraph 4 b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁴ The obligation to provide evidence of regular participation in projects arises from § 9 (4) b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁵ Preparation time prior to the official start of the module is not included.

⁶ Alternatively, but only after discussion with an academic advisor, another course from the first semester elective may be chosen as a substitute for the tutorial module.

Annex 1.5

Specific Regulations for the Master of Science in Molecular Plant and Microbial Sciences of the Faculty of Mathematics and Natural Sciences of the University of Cologne

Explanation: In the 1st semester, four basic modules with 6 credit points each are to be completed (three lecture modules and one seminar module; two of the lecture modules are elective modules). In the 2nd and 3rd semester, two subject modules and two project modules with 12 credit points each are completed. A subject module can be replaced by a laboratory module (subject module [type 3]) upon request. In addition, a supplementary module (Elective Module) with 12 credit points must be completed (according to the study plan in the 1st to 2nd semester). The study program is completed with the module Master's thesis with 30 credit points and a final colloquium with 6 credit points in the 3rd and 4th semester.

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|---|------------------|---|--|---|--|
| MN-B-P 1 | Lecture Molecular Plant and Microbial Sciences [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | P | 6 LP | | 7,5/100 |
| MN-B-P ²² | Seminar Molecular Plant and Microbial Sciences [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Seminar (TP, 20%) ² with Exercises (TP, 20%) ³ | none | Examination elements: 1 Type of examination: Presentation Duration: 20-30 minutes Language: English LP award: Passing of the examination element | 3 | P | 6 LP | | 7,5/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|---|------------------------------------|---|--|--|---|------------------|---|--|---|--|
| MN-B-B 1 | Lecture Advanced Biochemistry and Molecular Medicine [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | 12 LP | 7,5/100 |
| MN-B-C 1 | Lecture Computational Biology [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-E 1 | Lecture Ecology, Evolution and Environment [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the Audit Element | none | WP | 6 LP | | 7,5/100 |
| MN-B-GA 1 | Lecture Principles of Molecular Genetics, Development and Aging [Basic Module] | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written examination Duration: 2 hours Language: english LP award: Passing of the | none | WP | 6 LP | | 7,5/100 |

| | | | | | | | | | | | |
|--|--|--|--|--|--|----------------------------|--|--|--|--|--|
| | | | | | | <i>examination element</i> | | | | | |
|--|--|--|--|--|--|----------------------------|--|--|--|--|--|

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| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|--|------------------------------------|---|--|--|--|------------------|---|-----------------------------|---|--|
| MN-B-N 1 | Lecture Neuroscience [Basic Module]. | none | Start: WiSe Cycle: annual Duration: 15 weeks | Lecture | none | Examination elements: 1 Type of examination: Written exam Duration: 2 hours Language: English LP award: Passing of the examination element | none | WP | 6 LP | | 7,5/100 |
| MN-B-SM (type 1) | Subject Module (Type 1) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Written exam (50%); Unit (50 %) Duration: 1 hour (written exam) 20-30 min (presentation) Language: English LP award: Passing of all examination elements | 3 | WP | 12 LP | 24 LP | 12/100 |
| MN-B-SM (type 2) | Subject Module (Type 2) [Advanced Module]. | none | Start: SoSe Cycle: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: presentation (50 %); internship report (50 %) Duration: 20-30 min (presentation) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------------|--|------------------------------------|---|--|--|--|------------------|---|--|---|--|
| MN-B-SM (type 3) | Subject Module (Type 3) [Advanced Module]. | none | Start: SoSe Frequency: annual Duration: 7 weeks ⁵ | Lecture; project and/or exercise (TP, 20%) ^{3,4} ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50%); Internship report (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-SM [LM] (type 4) ¹ | Subject Module [Laboratory Module] (Type 4) [Advanced Module]. | none | Start: all year Duration: 7 weeks ⁵ | Project (TP 20%) ⁴ ; Seminar (TP, 20%) ² | none | Examination elements: 2 Type of examination: Oral examination (50%); Internship report (50 %) Duration: 20-30 min (oral exam) Language: english LP award: Passing of all examination elements | 3 | WP | 12 LP | | 12/100 |
| MN-B-EM ¹ | Elective Module [Ergänzungsmo dul] | none | Start: all year Duration: Not possible to specify | Depending on the individual choice of the students | Depending on the individual choice of Students n | LP Allocation: Proof of participation | none | WP | 12 LP | | 0/100 |

| Module identification number | Module title | Module participation-Prerequisites | Start Turnus Duration of the module | Course forms and attendance obligations (TP) | Examination requirements / requirements for the award of credit points | Examination elements Type of examination (and weighting) Duration Language of the module examination Prerequisite for the award of credit points (LP- award) | Test restriction | Elective module (WP), compulsory module (P) | Credit points of the module ⁸ | Sum of credit points in the elective area | Weighting of the module grade in the overall grade |
|------------------------------|------------------------------------|--|---|--|---|---|------------------|---|--|---|--|
| MN-B-PM1 (Type 1) | Project Module [Emphasis Modul] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Internship report Language: English LP award: Passing of the examination element | 3 | WP | 12 LP | 24 LP | 3/100 |
| MN-B-PM1 (type 2) | Project Module [Emphasis Modul] | none | Start: all year Duration: 7 weeks ⁵ | Project | none | Examination elements: 1 Type of examination: Lecture Duration: 20-30 min Language: English LP award: Passing of the examination element | 3 | WP | 12 LP | | 3/100 |
| MN-B-MT | Master Thesis [Emphasis Modul] | Successful completion of all other modules of the program. | Start: all year Duration: 7 months | Project | The evaluation of the Master's thesis with a grade of at least sufficient is a prerequisite for the final examination. Iloquium | Examination elements: 2 Type of examination: Master thesis (75 %); final colloquium (25 %) Language: english LP award: Passing of all examination elements | 2 | P | 36 LP | | 40/100 |

¹ No more than two of these modules may be supervised by the same examiner.

²The obligation to provide evidence of regular attendance at seminars results from § 9 (4) a).

³ The obligation to provide evidence of regular participation in exercises results from § 9 Paragraph 4 b) and e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁴ The obligation to provide evidence of regular participation in projects arises from § 9 (4) (b) and (e). Furthermore, according to § 9 para. 4 d) participation in safety training is mandatory.

⁵ Preparation time prior to the official start of the module is not included.

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Annex 2.1

Study plan for the Master of Science in Genetics and Biology of Aging and Regeneration and Master of Science in Molecular Plant and Microbial Sciences of the Faculty of Mathematics and Natural Sciences

| Semester | Basic, advanced and focus modules | Supplementary module |
|----------|---|----------------------------|
| 1 | Compulsory lecture (6 LP) Seminar (6 LP) Elective lecture 1 (6 LP) Elective lecture 2 (6 LP) | Elective Module (12 LP) |
| 2 | Subject Module 1 (12 LP) Subject Module 2 (12 CP) | |
| 3 | Project Module 1 (12 LP) Project Module 2 (12 LP) | |
| 3 + 4 | Master thesis with colloquium (36 LP) | |

Annex 2.2

Study plan for the Master of Science in Computational Biology of the Faculty of Mathematics and Natural Sciences

| Semester | Basic, advanced and focus modules | Supplementary module |
|----------|--|----------------------------|
| 1 | Compulsory lecture 1(6 LP) Compulsory lecture 2 (6 LP) Seminar (6 LP) Elective lecture (6 LP) | Elective Module (12 LP) |
| 2 | Subject Module 1 (12 LP) Subject Module 2 (12 CP) | |
| 3 | Project Module 1 (12 LP) Project Module 2 (12 LP) | |
| 3 + 4 | Master thesis with colloquium (36 LP) | |

Annex 2.3

Study plan for the Master's programs Master of Science in Ecology, Evolution and Environment and Master of Science in Neuroscience of the Faculty of Mathematics and Natural Sciences

| Semester | Basic, advanced and focus modules | Supplementary module |
|----------|---|----------------------------|
| 1 | Compulsory lecture (6 LP) Seminar (6 LP) Tutorial (6 LP) Elective lecture (6 LP) | Elective Module (12 LP) |
| 2 | Subject Module 1 (12 LP) Subject Module 2 (12 CP) | |
| 3 | Project Module 1 (12 LP) Project Module 2 (12 LP) | |
| 3 + 4 | Master thesis with colloquium (36 LP) | |