

Education and Examination Regulations

2025-2026

Master Biology

Radboud Universiteit



VERSION MANAGEMENT

After the adoption of this EER on 15 July 2025, the following changes have been made. Every revised version of the EER will be given a consecutive number. The original version of the EER is version 1.0.

No.	Date	Modification	In consultation with	Approved by	Modified by
1.1	22-10-2025	The master specialisation TWM has been removed from the EER as this specialisation is no longer offered.	Programme director, head education center, vicedean of education	-	Policy officers

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PART I GENERAL PROVISIONS MASTER

SECTION 1. GENERAL PROVISIONS

ARTICLE 1.1 APPLICABILITY OF THE REGULATIONS

1. These Education and Examination Regulations (hereinafter: EER) apply to the Master's programmes (the study programme in which the student is enrolled, is hereinafter referred to as: the study programme), including all associated educational units, of the Faculty of Science. These regulations outline the applicable procedures, rights and obligations for teaching, interim examinations and final examinations.
2. The present regulations apply to all students enrolled in the study programme in the 2025-2026 academic year. Students who enrolled in the study programme before 1 September 2016 and have been continuously enrolled in this study programme may appeal to the regulations that were active at the time of their initial enrolment in the study programme.
3. Educational units that are included in the programme-specific part of these regulations as part of the study programme are subject to the rules outlined in these regulations. Educational units offered by the Faculty of Science are always subject to the regulations included in at least one of the EERs of the Faculty of Science.
4. The Faculty offers the following 120 EC Master's programmes:
 - a. Biology
 - b. Computing Science
 - c. Science Education
 - d. Mathematics
 - e. Medical Biology
 - f. Molecular Sciences
 - g. Physics and Astronomy
 - h. Science for Sustainability
5. The Faculty offers the following 60 EC Master's programmes:
 - a. Information Sciences
6. The study programmes are offered exclusively as full-time programmes.

ARTICLE 1.2 EXECUTIVE BOARD GUIDELINES

1. In view of the organisation and coordination of the provisions in these regulations, the Executive Board has established the following guideline and regulations. The guideline and regulations can be found in the appendix:
 - a. Appendix 1: Guideline for Awarding Distinctions
 - b. Appendix 2: Fraud Regulations

ARTICLE 1.3 DEFINITIONS

1. The terms used in these regulations that also appear in the Higher Education and Research Act (Wet op het Hoger onderwijs en Wetenschappelijk onderzoek, hereinafter: 'the Act') have the same meaning as that assigned to them by the Act.
2. Apart from the terms referred to in paragraph 1, the terms below are understood to have the following meanings:
 - a. **Study programme:** the Master's programme, as referred to in Article 7.3a, paragraph 1 of the Act.
 - b. **Educational unit:** a study programme is a coherent set of educational units; see Article 7.3, paragraphs 2 and 3 of the Act. In practice, an educational unit is also referred to as a 'course'.
 - c. **Student:** a person enrolled at Radboud University to take educational units and/or to take interim examinations and the final examination of a study programme.
 - d. **Academic year:** the period from 1 September in a given year until 31 August of the following year.
 - e. **Practical:** a practical exercise as referred to in Article 7.13, paragraph 2 under (d) of the Act.
 - f. **Course objective:** a general description of the knowledge, understanding and/or skills the student must possess after completing an educational unit.
 - g. **Interim examination:** an examination testing the knowledge, understanding or skills of the student in relation to a certain educational unit, as well as the assessment of the results of this examination, which is administered by at least one examiner designated by the Examination Board as referred to in Article 7.10, paragraph 1 of the Act.
 - h. **Partial examination:** an examination testing the knowledge, understanding or skills of the student in relation to a certain educational unit, which in conjunction with one or more other partial examinations constitute the interim examination. In these regulations, when the term 'interim examination' is used, this can also be read as 'partial examination', unless explicitly indicated otherwise.
 - i. **Resit:** an opportunity to retake an interim examination as referred to in Article 7.10, paragraph 1 of the Act. In these regulations, when the term 'interim examination' is used, this can also be read as 'resit', unless explicitly indicated otherwise.
 - j. **Final examination:** an assessment, on the basis of which the Examination Board determines whether the Master's examination, as defined in the programme-specific part of these regulations, has been completed successfully.
 - k. **Final project:** the final project is an academic proof of competence in the specific field of study of the study programme.
 - l. **Fraud:** any behaviour or negligence on the part of the student that, by its nature, is directed toward making it partly or entirely impossible to properly assess the knowledge, understanding and skills of the student or of another student.
 - m. **Examination Board:** the examination board of a study programme, established in accordance with Article 7.12 of the Act. See also the Radboud University Structure Regulations.
 - n. **Examiner:** the person designated by the Examination Board to administer the interim examinations, in accordance with Article 7.12c of the Act.
 - o. **Distinction:** a distinction awarded by the Examination Board that indicates that a student has completed the study programme with exceptional success. There are two distinctions: cum laude and summa cum laude.
 - p. **EC:** European Credits, i.e. the study load unit in accordance with the European Credit Transfer System.

- q. **Specialisation:** a coherent programme within the Master's programme that has been approved as such by the Faculty Board.
- r. **Working day:** Mondays to Fridays, with the exception of official holidays and any other days designated by Radboud University as collective holidays.
- s. **Course catalogue:** catalogue listing the educational units and minors associated with the study programmes. The catalogue provides programme-specific information about all Radboud University study programmes.
- t. **University:** Radboud University.
- u. **Faculty:** the Faculty of Science of Radboud University.
- v. **Education Institute:** the organisational unit responsible for the study programme.
- w. **Programme Director:** person responsible for managing the study programme. In these regulations, where the term 'programme director' is used, this can also be read as 'programme coordinator'.
- x. **Free elective:** a freely-selected, academic, assessable educational unit chosen from the options offered within the study programme.
- y. **Rules and Regulations:** regulations in which the Examination Board sets out how it works in accordance with these regulations.

PART II GENERAL PART

SECTION 2. ADMISSION TO THE STUDY PROGRAMME AND EDUCATION

ARTICLE 2.1 ADMISSION AND ADMISSION REQUIREMENTS

1. The Admissions Office decides on admission on behalf of the Dean.
2. The general admission requirements are included in the [Registration Regulations for the 2025-2026 academic year](#). The programme-specific part of these regulations lists the programme-specific admission requirements.

ARTICLE 2.2 LANGUAGE REQUIREMENTS

1. The Faculty offers study programmes in Dutch or in English. A Dutch-taught study programme may include English-taught educational units. An English-taught study programme may include Dutch-taught educational units. The language of instruction of the study programme is specified in the programme-specific part of these regulations.
2. To participate in a Dutch-taught study programme, the student must be able to provide proof of sufficient Dutch language proficiency. Qualifications and certificates that meet the Dutch language requirements can be found on the [website of Radboud University](#).
3. To participate in an English-taught study programme, the student must be able to provide proof of sufficient English language proficiency. Qualifications and certificates that meet the English language requirements can be found on the [website of Radboud University](#).
 - a. For the following certificates, the test results listed below are required:
 - TOEFL IBT, score ≥ 90 + sub-score ≥ 22 + writing sub-score ≥ 25
 - IELTS Academic, score ≥ 6.5 + sub-score ≥ 6.0 + writing sub-score ≥ 6.5
 - Cambridge Certificate C1 Advanced: general minimum score 176, minimum component score 169, minimum writing component score 176
 - Cambridge Certificate C2 Proficiency, general minimum score 180, minimum component score 169, minimum writing component score 176
4. A student who does not meet the requirements described above but can otherwise demonstrate sufficient language proficiency may submit a request for exemption from the language requirement to the Admissions Office, which will decide on the matter on behalf of the Dean.

SECTION 3. STRUCTURE AND DESIGN

ARTICLE 3.1 FINAL EXAMINATION, DEGREE AND DISTINCTIONS

1. A Master's programme is concluded with a Master's examination.
2. Students who pass the study programme's Master's examination will be awarded a Master of Science degree. The Master's examination is considered to have been successfully completed if a valid and satisfactory interim examination result has been obtained for all compulsory educational units, supplemented by elective educational units, as specified in the programme-specific part of these regulations. The Examination Board may conduct an additional investigation into the knowledge, understanding and skills of the candidate (see Article 7.10, paragraphs 1 and 2 of the Act).
3. The degree referred to in paragraph 2 is awarded exclusively if the student has earned at least half of the EC required for their study programme at this University.

4. The Examination Board can award distinctions to students who have successfully passed the final examination of the study programme. The rules for awarding distinctions can be found in the Guideline for Awarding Distinctions in the appendix.

ARTICLE 3.2 GENERAL LEARNING OUTCOMES

The study programme has the following learning outcomes for students:

1. Acquire knowledge, understanding and skills in the relevant field of study
2. Develop academic competences
3. Prepare for a future career
4. Deepen qualifications in the area of independent academic research

ARTICLE 3.3 CURRICULUM

1. The programme-specific part of these regulations lists and describes all of the educational units that jointly comprise the study programme.
2. For each educational unit, the Programme Director is responsible for ensuring that the following information is included in the course catalogue for the academic year corresponding to these regulations prior to the adoption of these regulations:
 - a. a description of the educational unit
 - b. the course objectives
 - c. any admission requirements
 - d. the manner in which interim examinations are administered
 - e. how the results of an interim examination are determined, taking into account the weighting of any partial examinations
 - f. scheduling of partial or interim examinations
 - g. if relevant, the limited validity of partial examinations
 - h. any capacity restrictions
3. Contrary to the provisions of Article 3.3, paragraph 2, the information from Article 3.3, paragraph 2 under (a), (c), (e), and (f) of the educational units that are completed in the third and fourth periods may still be amended by the Programme Director up until the start of the second period.
4. Students can register for an educational unit up until 11:59 p.m. on the day prior to a period of four weeks before the start of the period in which the educational unit starts. For educational units in the first period, students can register until the end of the first week of teaching.
5. For educational units with a capacity restriction as referred to in Article 3.3, paragraph 2 under (h), if the number of enrolments exceeds capacity, the following procedure will be followed: participants will be admitted in order of enrolment. Students who cannot be admitted due to capacity restrictions will also be placed on a waiting list in order of enrolment. Notwithstanding the above provisions, the Programme Director can decide otherwise; the procedure that applies in that case must be included in the course catalogue for the academic year corresponding to these regulations prior to the adoption of these regulations. A capacity restriction may not apply to students for whom the educational unit is compulsory.
6. If students are granted admission to an educational unit, they are admitted to all components of the unit in question, including the interim examination.
7. Some modes of instruction have attendance/participation requirements. Attendance or participation can only be made compulsory if attendance is required to meet one or more of the course objectives. The attendance/participation requirement must be listed in the course catalogue under the relevant educational unit.

8. All Faculty of Science Master's programmes, with the exception of Information Sciences and Science for Sustainability, offer research specialisations and societal specialisations. The specialisations are described in the programme-specific part of these regulations.
9. The educational units of the nominal space of the study programme may not have any substantial substantive overlap.
10. The study programme includes a free elective space with a study load of 6 EC.
11. The study programme includes an educational unit of a philosophical nature with a minimum study load of 3 EC.
12. The study programme includes a component for the purpose of reflecting on study progress and planning, and professional orientation with a study load of 1, 2, or 3 EC. This component can be a stand-alone educational unit or integrated into subject-specific educational units. In the latter case, assessment must take the form of one or more partial examinations.
13. The study programme includes an individual final project. The programme-specific part of these regulations lists the partial or interim examinations that together represent the final project, and their scope in EC.
14. The student must present their compiled Master's programme to the Examination Board for approval no later than three months before the expected examination date. The Examination Board will reach a decision within 20 working days of receiving the submitted programme.
15. Extracurricular educational units are allowed if, in the opinion of the Examination Board, the course is testable at an academic level.
16. If a student chooses educational units within the programme that result in a total study load exceeding 120 EC or 60 EC respectively, the excess educational units will be classified as extracurricular. This does not apply if the study load of such an educational unit would have to be split up. Extracurricular educational units do not count towards the determination of the distinction.
17. If a student can choose different educational units within the curriculum, and the student has passed more than one of these educational units, the student can decide which educational units will count toward their distinction if one or more of the educational units are extracurricular.

ARTICLE 3.4 SEQUENCE OF EDUCATION AND INTERIM EXAMINATIONS

1. The programme-specific part of these regulations may contain further requirements for the order in which educational units and the accompanying interim examinations may be taken.

ARTICLE 3.5 TYPES OF INTERIM EXAMINATIONS

1. Educational units are concluded by an interim examination. Interim examinations may comprise several partial examinations. Only partial examinations and interim examinations can be used to determine a final grade.
2. Partial examinations and interim examinations may consist of the following assessment forms:
 - a. Written test and/or
 - b. Oral test and/or
 - c. Presentation and/or
 - d. Skills test and/or
 - e. The creation of a discipline-specific product and/or text.
3. Contrary to the provisions of Article 3.3, paragraph 2 under (d) and at the request of the student or the examiner, the Examination Board may allow an interim examination to be taken in an alternative form, if this is not to the detriment of the student.

4. The course materials offered provide the student with insight into the manner in which, as well as the form in which the learning objectives will be assessed.
5. For partial and interim examinations as referred to in paragraph 2 under (a), information concerning the format of the partial or interim examination will be provided no later than 10 working days before the day on which the partial or interim examination concerned is administered. In this context, the following must be specified:
 - a. The type of questions: open and/or closed questions
 - b. Permitted aids and resources
 - c. Application of methods whereby points are deducted, such as 'guess correction'
6. For partial and interim examinations as referred to in paragraph 2, under (c), (d), and (e), the assessment criteria must be made available with the assignment, or otherwise communicated to the student.
7. Students with functional impairments have the opportunity to take interim examinations in a manner appropriately suited to their impairment. The Examination Board shall, if necessary, seek expert advice prior to reaching a decision on the matter. If a student requires certain facilities for their interim examinations, they must request these from the Education and Examination Administration of the Faculty no later than two weeks before the interim examination.
8. During oral examinations, no more than one person is tested at a time, unless the Examination Board decides otherwise.
9. Oral examinations are not public, unless the Examination Board has deemed otherwise in exceptional cases. Oral examinations are recorded, or a second examiner or designated observer is present.

ARTICLE 3.6 EXEMPTIONS

1. At the request of the student and having heard the examiner involved, the Examination Board may exempt the student, either partially or fully, from sitting for an interim examination if the student:
 - a. Has completed an educational unit at a research university or university of applied sciences (HBO) that is equivalent in content and level, or
 - b. Demonstrates that they have adequate knowledge and skills regarding the educational unit in question as a result of relevant work or professional experience.
2. Any generic exemptions in the study programme are included in the programme-specific part of these regulations.
3. A course can only be registered with a grade on the diploma for one study programme. If a course is also part of another examination programme, this course will be listed as an exemption on one of the two diplomas.
4. For students who first enrolled on or after 1 September 2017, the number of exemptions as referred to in paragraph 1 may not exceed one quarter of the total study load of the study programme expressed in EC.
5. All results achieved before the date of initial enrolment for a study programme are listed as exemptions on the diploma for that study programme. These exemptions do not count towards the EC as stated in paragraph 4 if the courses are only included in one examination programme.
6. Nor is it possible to obtain an exemption for the free elective space based on a Bachelor's educational unit that was not completed during the Master's programme.
7. Exemptions as referred to in paragraphs 1 and 2 cannot be granted for final projects.
8. If, after completing two Master's programmes, a student wishes to distribute the exemptions in accordance with paragraphs 2 and 3 across the two diplomas, they must submit an examination application for both study programmes at the same time.

ARTICLE 3.7 TERM OF VALIDITY FOR SUCCESSFULLY COMPLETED INTERIM EXAMINATIONS

1. Successfully completed interim examinations are valid indefinitely.
2. Successfully completed partial examinations are valid indefinitely, unless specified otherwise in the course catalogue (see Article 3.3, paragraph 2, under (g)), but at least until the end of the academic year in which they were completed.
3. A successfully passed interim examination may be taken again. If a student resits an interim examination, in derogation from paragraph 1, the last result obtained always applies.

ARTICLE 3.8 ELECTIVE PROGRAMMES

The Examination Board of the study programme decides about requests for authorisation to follow an elective programme as referred to in Article 7.3j of the Act. The Examination Board verifies whether the elective programme fits within the domain of the study programme, whether it is sufficiently cohesive, and whether the level is adequate in the context of the study programme's learning outcomes. Further requirements to this end may be set out in the programme-specific part of these regulations.

SECTION 4. ASSESSMENT

ARTICLE 4.1 FREQUENCY OF INTERIM EXAMINATIONS

1. For each educational unit, there are at least two interim examination opportunities per academic year.
2. Notwithstanding paragraph 1, there may in some cases only be one opportunity to take an interim examination or partial examination. The Programme Director is responsible for ensuring that this is included in the course catalogue for the academic year corresponding to these regulations prior to the adoption of these regulations.
3. Notwithstanding paragraph 1, if an educational unit is offered for the last time in a particular academic year, there will be at least one other opportunity to take an interim examination for this educational unit in the following academic year.
4. If an educational unit is not offered in a particular academic year, the opportunity to take the corresponding interim examination will be offered once in that academic year, as long as the interim examination is administered in written or oral form.

ARTICLE 4.2 REGISTRATION FOR INTERIM EXAMINATIONS

1. Students can register for an interim examination up until 11:59 p.m. on the day prior to a period of five working days before the date of the interim examination. Registration is not possible after this, unless the head of the Education Centre decides otherwise in exceptional cases and on behalf of the Dean.

ARTICLE 4.3 DETERMINATION OF INTERIM EXAMINATION RESULTS

1. The examiner determines the result of an interim examination on one of the following result scales:
 - a. A grade on a scale from 1 (lowest possible grade) to 10 (the highest possible grade), whereby only the following final grades can be awarded: 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10. A final grade of 6 or higher means that the educational unit has been successfully completed (pass). Grades that are not one of the permitted final grades must be rounded to the nearest permitted final grade. A grade that falls exactly between two permitted final grades must be rounded up.

- b. A non-numerical result from the following list: 'pass' (voldaan, VD), 'fail' (niet voldaan, NVD), 'satisfactory' (voldoende, VLD), 'unsatisfactory' (onvoldoende, ONV), 'good' (goed, G), 'participated' (deelgenomen, D) and 'did not participate' (niet deelgenomen, ND), whereby a result of 'VD', 'VLD', 'G' or 'D' means that the educational unit has been successfully completed.
2. Notwithstanding the provisions of paragraph 1 under (a), partial examinations may also be graded to one decimal point on a scale of 1 to 10.

ARTICLE 4.4. PUBLICATION OF INTERIM EXAMINATION RESULTS

1. The examiner determines the result of an interim examination within 15 working days of the date the interim examination was administered. Here, the precondition applies that there must be at least 10 working days between the date of the publication of the result in OSIRIS and the date of the resit.
2. Notwithstanding paragraph 1, for interim examinations in the fourth period, the examiner shall determine the results of the examination no later than nine days before the date of the resit. The period between the interim examination and the resit is always at least 14 working days. This gives the examiner five working days to establish the result.
3. Contrary to the provisions of paragraph 1, the examiner shall determine the result of an oral examination within a maximum of five working days of the date it was administered, such that the student is given the opportunity to graduate in the current academic year.
4. In exceptional cases, the Examination Board may extend the term in which the result must be determined as referred to in paragraphs 1 and 2 by a maximum of 10 working days. This is not possible for the interim examinations in the fourth period. The lecturer will inform students of this extension.
5. The examiner determines the result of the final project within 15 working days after all products and assessments have been completed and submitted according to the method specified in the course catalogue.
6. In the statement concerning the result of an interim examination, the student is also informed of their right to inspection, as referred to in Article 4.5, as well as the right to appeal to the Examination Appeals Board.
7. Students may appeal an interim examination result to the Examination Appeals Board within six weeks after the date of publication of the examination result in question.

ARTICLE 4.5 RIGHT OF INSPECTION AND REVIEW

1. Students are given the opportunity to view their graded work within 30 working days of the publication of the results of a written interim examination. The student can submit a request to this end to the examiner. The student may upon request also be provided with a copy of their graded work where 'open' questions are concerned. The inspection must take place at least five working days before the resit. For interim examinations in the fourth period, this is possible until one working day before the resit.
2. During the period referred to in paragraph 1, any student who has taken an interim examination may review the questions and assignments of the interim examination in question, as well as the standards on which the assessment was based.
3. If the student demonstrates that they are or were unable to attend an inspection due to circumstances outside their control, they may ask the Examination Board to allow them another opportunity to inspect the examination, if possible within the period referred to in paragraph 1.
4. The retention period for partial and interim examinations is:
 - Written partial and interim examinations on paper: two years (retained by the examiner)
 - Digital written partial and interim examinations: two years (retained in the assessment software)
 - Final project: seven years (retained in OSIRIS)

ARTICLE 4.6 DETERMINATION OF FINAL EXAMINATION RESULTS

1. Students are given the opportunity to take the final examination once they have successfully completed all educational units, as described in Article 3.3, paragraph 14.
2. There is at least one final examination date every month.
3. The Examination Board will determine the result of the final examination, as well as the rules for the manner in which the result of the examination is determined. The result is determined within five weeks following the application. If the final examination takes place in July, the results will be determined no later than 31 August. Where needed due to entry requirements for a subsequent study programme or the acceptance of a job, a statement can be released within five working days indicating that the student has met the requirements of the final examination. This is only possible if the student has met the requirement specified in paragraph 1.
4. Before the Examination Board determines the result of the final examination, they may evaluate and assess the student's knowledge on one or more educational units or aspects of the study programme, if and to the degree to which this is justified by the results of the relevant interim examinations.

SECTION 5. STUDY PROGRESS, ACADEMIC COUNSELLING, STUDY ADVICE AND EVALUATION OF EDUCATION

ARTICLE 5.1 STUDY PROGRESS AND ACADEMIC COUNSELLING

1. The Dean is responsible for recording study results in such a way that the Education and Examination Administration can, upon request, and within a reasonable time period, provide every student with an overview of their study results up to that moment.
2. The Dean is responsible for providing adequate academic counselling.

ARTICLE 5.2 METHOD OF EVALUATING EDUCATION

In compliance with the quality assurance system of the University as described in the Radboud University Quality Assurance Manual, the Dean shall ensure that the education of the study programmes is evaluated systematically.

PART III PROGRAMME-SPECIFIC PART

SECTION 6. ADMISSION TO THE STUDY PROGRAMME AND EDUCATION

ARTICLE 6.1 ADMISSION REQUIREMENTS

The following students are admissible to the study programme:

1. Students who have successfully completed the final examination of the Bachelor's programme in Biology at Radboud University.
2. Students who have successfully completed the final examination of a Bachelor's programme in Biology or an equivalent degree at another Dutch university.
3. Students who are in possession of a degree certificate that is at least equivalent to the qualification referred to in Article 6.1 paragraph 1.
4. Students who have in the opinion of the Examination Board otherwise demonstrated their suitability for participation in the study programme.
5. Students must provide proof of sufficient proficiency in English, as described in Article 2.2.
6. The educational units of the Microbiology specialisation are subject to additional admission requirements and a capacity restriction, as described in Article 6.3.

ARTICLE 6.2 PRE-MASTER'S PROGRAMME OF STUDY

Students who have earned a qualification in a relevant biological field from a university of applied sciences (HBO), including higher laboratory education (HLO) and Life Science study programmes, and who have completed the Biology pre-Master's programme of maximum 60 EC established for them will also be admitted to the study programme.

ARTICLE 6.3 MICROBIOLOGY ENROLMENT CAPACITY

Admission to the Microbiology specialisation is subject to a selection procedure, in which individual applications are assessed on the basis of previously obtained qualifications and an online interview. In addition to the admission requirements described above, the Microbiology specialisation has a maximum capacity of 28 student enrolments per year.

SECTION 7. STRUCTURE AND DESIGN

ARTICLE 7.1 PROGRAMME-SPECIFIC LEARNING OUTCOMES

1. In addition to the general learning outcomes described in the general part of these regulations, the study programme aims to achieve the following learning outcomes:
 - a. Graduates can demonstrate their comprehensive knowledge, including the understanding of fundamental principles and advanced concepts, of a sub-field of biology to discuss and evaluate the work of other scientists in that field.
 - b. Graduates can effectively design, conduct, and analyse biological research, and use state-of-the-art methodologies.
 - c. Graduates can apply knowledge through critical thinking and problem-solving abilities when assessing complex biological issues and research from colleague researchers.

- d. Graduates can communicate scientific ideas and research outcomes through written reports and oral presentations, including a clear representation of the analyses, according to the standards of academic communication.
 - e. Graduates adhere to common ethical standards in biological research and demonstrate integrity and responsible conduct in their work.
 - f. Graduates can work in a project team and promote collaboration across biological fields to address multi-faceted biological challenges.
 - g. Graduates can apply self-reflection to their performance and capacities to give direction to their own learning process and assess their opportunities on the labour market.
2. Upon completing their Master's degree, students who opt for a research specialisation, as referred to in Article 7.2, paragraph 1 a-e, will also have achieved the following learning outcomes:
 - a. Graduates can independently conduct scientific research in two topics in biology.
 - b. Graduates can present the results and conclusions of a research project in written form according to the standards of an academic article, and as an oral presentation according to the standards of an academic conference, in a clear and unambiguous manner.
 - c. Graduates can write a research proposal according to the criteria of external academic funding organisations, or a literature review according to the criteria of an academic journal.
3. Students who opt for the Science, Management and Innovation specialisation as described in Article 7.2f will also achieve the following learning outcomes:
 - a. Graduates are able to bridge the gap between their own scientific discipline and other disciplines, based on a profound understanding of their chosen core theme and its relation to political, business/economic, societal, technological, environmental and legal issues or objectives in today's world.
 - b. Graduates are able to take an analytical approach to a system that can draw on methods or models from both inside and outside their core scientific discipline.
 - c. Graduates have developed a proficiency in utilising research methods and frameworks from the social sciences.
 - d. Graduates have developed a proficiency in speaking the language of both the natural and social sciences to effectively communicate in written and spoken form the problems and approaches for solutions that are found at the intersection of scientific research and applications in society.
 - e. Graduates have developed the ability to balance perspectives and interests in specific contexts within a company, government and non-government organisation or an industry in the general sense in order to formulate appropriate strategies and recommendations that can be utilised towards the realisation of the Sustainable Development Goals (SDGs).
 - f. Graduates have developed the ability to work in multidisciplinary and multicultural high-performance teams based on a sound division of tasks, knowledge, competencies, and responsibilities, whilst respecting diverging views and opinions.
4. Students who opt for the Science in Society specialisation as described in Article 7.2g also
 - a. Develop the ability to analyse the role of scientific expertise in societally relevant issues.
 - b. Develop the ability to design and conduct independent, methodologically sound research on the interface of science and society, and contribute to academic research.
 - c. Develop the ability to understand and implement public and stakeholder engagement in research and innovation.

- d. Develop the ability to analyse, improve and evaluate interdisciplinary collaborations with multiple stakeholders, integrating different perceptions, interests and types of knowledge (experiential, professional and scientific).
 - e. Develop the ability to substantiate and communicate the relevance of their scientific discipline in society.
5. Students who opt for the Science and Education specialisation as referred to in Article 7.2h will also achieve the following learning outcomes:
- a. Graduates have knowledge of and insight into the theoretical principles of discipline-specific thinking, educational design, and the methods and techniques for applying didactic research in their discipline.
 - b. Graduates are able to design, implement and systematically evaluate an educational design and a scientific study, drawing a link between didactic and professional practice concepts, discipline-specific thinking of the students at different levels and problems from teaching practice.
 - c. Graduates are able to devote attention to the discipline-specific learning of individual students, and focus on developing inspiring education.
 - d. Graduates are able to apply sound scientific knowledge of general didactic concepts about the learning of individual students and methods to improve both the social climate in the classroom and to respond to the individual learning needs of the students.
 - e. Graduates are able to differentiate themselves and improve the social climate for collaboration and, in doing so, to set independent priorities and respond appropriately to development and behavioural problems, after consultation with relevant third parties.
 - f. Graduates are able to focus on collaboration and responsible behaviour based on clear communication with individual students, groups of students, and colleagues.
 - g. Based on their own vision, graduates are able to develop a professional knowledge base to justify their own actions and understand the actions of colleagues and supervisors.
 - h. Graduates are able to use their professional knowledge base and practical feedback (students, colleagues, and supervisors) to evaluate and guide their own professional development.
 - i. Graduates are able to develop a personal identity in the context of their own actions, external frameworks, and ethical dilemmas.

ARTICLE 7.2 COMPOSITION OF THE STUDY PROGRAMME

1. The student chooses one of the following specialisations of the study programme:
 - a. Adaptive Organisms
 - b. Conservation and Restoration Ecology
 - c. Environment & Sustainability (previously Water & Environment)
 - d. Microbiology
 - e. Science, Management and Innovation
 - f. Science in Society
 - g. Science and Education (this specialisation is closed for new students from 2024-2025)

ARTICLE 7.2.A MASTER'S SPECIALISATION IN ADAPTIVE ORGANISMS

The Master's specialisation in Adaptive Organisms consists of the following educational units:

1. MANDATORY EDUCATIONAL UNITS (18 EC)

Disciplinary educational units (15 EC)

Course code	Course name	EC
NWI-BM036A	Orientation in Biology and Environmental Sciences	3
NWI-BM077	Genomics	3
NWI-BM010C	Adaptation Physiology of Animals	3
NWI-BM076	Symbiosis	3
NWI-BM035B	Molecular Physiology of Plant Stress Adaptation	3

Personal and professional development (3 EC)

Course code	Course name	EC
NWI-BM089A	Career Orientation for Biologists	2
NWI-BM089B	Portfolio Master Biology	1

2. LIMITED CHOICE ELECTIVES (12 EC)

Students must choose at least one of the following courses, provided these do not coincide with the other courses of the programme. Note: not all courses are taught every year.

Course code	Course name	EC
NWI-BM004C	Apoptosis	3
NWI-BM010C	Adaptation Physiology of Animals	3
NWI-BM014D	Microbiology of Aquatic Ecosystems	3
NWI-BM016C	Cellular Imaging in Four Dimensions	3
NWI-BM024D	Course on Laboratory Animal Sciences	3
NWI-BM032C	Advanced Endocrinology	3
NWI-BM033F	Nature in a Crowded Country	3
NWI-BM035B	Molecular Physiology of Plant Stress Adaptation	3
NWI-BM038A	Ecological and Environmental Concepts	3
NWI-BM039A	Restoration Ecology	3
NWI-BM040B	Field Course Alpine Ecology (alternates with BM048B, not offered in 2025-2026)	6
NWI-BM048B	Field research course (alternates with BM040B, offered in 2025-2026)	6
NWI-BM060C	Quantitative Conservation Ecology	6
NWI-BM063	Microbial Physiology and Metabolism	3
NWI-BM065	Microbial Cell Structure and Function	3
NWI-BM067	Host-Microbe Interactions	3
NWI-BM068	Environmental Microbiology and Biotechnology	3
NWI-BM074A	NIOZ Marine Master's Summer Course	4

Course code	Course name	EC
NWI-BM075	Biodiversity Assessment	3
NWI-BM076	Symbiosis	3
NWI-BM077	Genomics	3
NWI-BM080	Molecular Parasitology	3
NWI-BM083	Data Visualisation	3
NWI-BM081	Digesting the Microbiome	3
NWI-BM082	Food & Brain Health	3
NWI-BM086	Human Breathomics	3
NWI-BM087	How Imaging Gave Birth to Modern Cell Biology	3
NWI-BM088	Sharpen Your Scientific Skills	3
NWI-BM093	Modelling for Biologists	3
NWI-MM002A	Environmental and Ecological Modelling	3
NWI-MM018A	Economics for Environmental Management	3
NWI-MM019A	River Ecology and Management	3

The student must also choose from one of the following courses of a philosophical nature (3 EC):

Course code	Course name	EC
NWI-FFIL202A	Evolution and the Mind	3
NWI-FFIL203B	Bio-Ethics for Life Scientists	3
NWI-FFIL209B	Environmental Ethics	3
NWI-FFIL215	Upgrading the Human?	3
NWI-FFIL216	Imagining the Anthropocene	3
NWI-FFIL217	Science and Arts	3
NWI-FFIL218	Science and Values	3
NWI-FFIL220	Philosophy of Evidence and Expertise	3
NWI-FFIL221	Beyond Boundaries: An Introduction to Interdisciplinarity	3
NWI-FFIL222	Philosophy of Ecological Restoration	3
NWI-FFIL302	Philosophy & Ethics in Microbiology	3

In addition to this, students also need to select exact science educational units of a demonstrable and measurable Master's level for up to a total of 12 EC of limited elective space.

Students can use a maximum of 6 EC of the limited elective space to extend their scientific internships. If a student wishes to extend their internship by more than 6 EC, they must always request written permission to do so from the Examination Board prior to the internship. Students are explicitly not permitted to use free electives to extend an internship.

All educational units without a course code from Radboud University that are not covered by the limited extension of the internship, as described above, must have their level assessed and be approved by the Examination Board before they can be included in the limited elective space.

3. FREE ELECTIVES (6 EC)

See the general part of the EER, Article 3.3, paragraph 10.

The free electives may not be used to extend the scientific internship.

4. INTERNSHIPS (72 EC) (NWI-BM-STAGE1 AND NWI-BM-STAGE2)

Students are required to take two scientific internships at university level that centre on a biological problem, which is investigated by means of experiments and/or data analysis, with a study load of 36 EC each. Their findings should be recorded and presented in the form of a written report and an oral presentation. At least one internship should take place at one of the departments specified in the course catalogue.

One or both scientific internships can be completed at a department at Radboud University or Radboud university medical center. In derogation from the above provisions, one or both internships can also be completed at an external research or other organisation, provided that written permission is obtained at the start of the internship from an internship coordinator. Each year, the study programme publishes a list in the course catalogue of suitable internship departments where at least one internal or external internship must be completed. Internships are assessed using the internship assessment form for the Master's phase of the study programme. At least one internal examiner must be involved in the assessment of each internship. The second internship may not be assessed by the same first examiner as the first internship, with the exception of external internships. Notwithstanding the language of instruction of the study programme, in consultation with the student and examiner(s) and with the approval of the Examination Board, the internship report may be written in Dutch.

5. REVIEW ARTICLE (6 EC) (NWI-BM-REVIEWART) & RESEARCH PROPOSAL (6 EC) (NWI-BM-RESPROP)

The Review Article consists of a literature review on a biological problem.

The Research Proposal consists of a research proposal based on a biological problem.

Assessment must be carried out by an examiner from an internship department suitable for this specialisation, as described in the course catalogue. The topics of these educational units may not overlap without first submitting a proposal to this end to the Examination Board. The Research Proposal may be replaced by Field Course Alpine Ecology (NWI-BM040B) or Field Research Course (NWI-BM048B). The Review Article and the Research Proposal may not both be replaced by these educational units. The Review Article and the Research Proposal may not have the same examiner, but this limitation does not apply if one of these assignments has been replaced by the Field Course in Alpine Ecology (NWI-BM040B) or Field Research Course (NWI-BM048B).

6. PERSONAL AND PROFESSIONAL DEVELOPMENT (PPO) LEARNING PATHWAY

The educational units that contribute to the Personal and Professional Development (PPO) learning pathway are the courses listed in Article 7.2 a, paragraph 1: NWI-BM089A Career Orientation and NWI-BM089B Master Biology Portfolio, the internships (NWI-BM-Stage1 and 2, NWI-BM-S-stage) and the writing assignments (NWI-BM-REVIEWART and NWI-BM-RESPROP).

ARTICLE 7.2B MASTER'S SPECIALISATION IN CONSERVATION AND RESTORATION ECOLOGY

The Master's specialisation in Conservation and Restoration Ecology consists of the following educational units:

1. MANDATORY EDUCATIONAL UNITS (18 EC)

Disciplinary educational units (15 EC)

Course code	Course name	EC
NWI-BM036A	Orientation in Biology and Environmental Sciences	3
NWI-BM060C	Quantitative Conservation Ecology	6
NWI-BM039A	Restoration Ecology	3
NWI-BM014D	Microbiology of Aquatic Ecosystems	3

Personal and professional development (3 EC)

Course code	Course name	EC
NWI-BM089A	Career Orientation for Biologists	2
NWI-BM089B	Portfolio Master Biology	1

2. LIMITED CHOICE ELECTIVES (12 EC)

See Article 7.2a, paragraph 2.

3. FREE ELECTIVES (6 EC)

See Article 7.2a, paragraph 3.

4. INTERNSHIPS (72 EC) (NWI-BM-STAGE1 AND NWI-BM-STAGE2)

See Article 7.2a, paragraph 4.

5. REVIEW ARTICLE (6 EC) (NWI-BM-REVIEWART) & RESEARCH PROPOSAL (6 EC) (NWI-BM-RESPROP)

See Article 7.2a, paragraph 5.

6. PERSONAL AND PROFESSIONAL DEVELOPMENT (PPO) LEARNING PATHWAY

See Article 7.2a, paragraph 6.

ARTICLE 7.2C MASTER'S SPECIALISATION IN ENVIRONMENT & SUSTAINABILITY

Note: Until 2023-2024, this specialisation was known as Water & Environment.

The Master's specialisation in Environment & Sustainability consists of the following educational units:

1. MANDATORY EDUCATIONAL UNITS (18 EC)

Disciplinary educational units (15 EC)

Course code	Course name	EC
NWI-BM036A	Orientation in Biology and Environmental Sciences	3
NWI-BM038A	Ecological and Environmental Concepts	3
NWI-BM039A	Restoration Ecology	3
NWI-BM075	Biodiversity Assessment	3
NWI-MM002A	Environmental and Ecological Modelling	3

Personal and professional development (3 EC)

Course code	Course name	EC
NWI-BM089A	Career Orientation for Biologists	2
NWI-BM089B	Portfolio Master Biology	1

2. LIMITED CHOICE ELECTIVES (12 EC)

See Article 7.2a, paragraph 2.

3. FREE ELECTIVES (6 EC)

See Article 7.2a, paragraph 3.

4. INTERNSHIPS (72 EC) (NWI-BM-STAGE1 AND NWI-BM-STAGE2)

See Article 7.2a, paragraph 4.

5. REVIEW ARTICLE (6 EC) (NWI-BM-REVIEWART) & RESEARCH PROPOSAL (6 EC) (NWI-BM-RESPROP)

See Article 7.2a, paragraph 5.

6. PERSONAL AND PROFESSIONAL DEVELOPMENT (PPO) LEARNING PATHWAY

See Article 7.2a, paragraph 6.

ARTICLE 7.2D MASTER'S SPECIALISATION IN MICROBIOLOGY

The Master's specialisation in Microbiology consists of the following educational units:

1. MANDATORY EDUCATIONAL UNITS (21 EC)

Disciplinary educational units (18 EC)

Course code	Course name	EC
NWI-BM069	Introduction and Orientation in Microbiology	3
NWI-BM063	Microbial Physiology and Metabolism	3
NWI-BM068	Environmental Microbiology and Biotechnology	3
NWI-BM065	Microbial Cell Structure and Function	3
NWI-BM067	Host-Microbe Interactions	3
NWI-BM070	Medical Microbiology	3

Personal and professional development (3 EC)

Course code	Course name	EC
NWI-BM089A	Career Orientation for Biologists	2
NWI-BM089B	Portfolio Master Biology	1

2. LIMITED CHOICE ELECTIVES (9 EC)

A student chooses from the educational units listed in Article 7.2a, paragraph 2, under the conditions specified therein, with the proviso that if the limited choice space is partly filled with a 6 EC extension of the internship, the remaining space must be filled with courses from the list of courses of a philosophical nature (3 EC).

3. FREE ELECTIVES (6 EC)

See Article 7.2a, paragraph 3.

4. INTERNSHIPS (72 EC) (NWI-BM-STAGE1 AND NWI-BM-STAGE2)

See Article 7.2a, paragraph 4.

5. REVIEW ARTICLE (6 EC) (NWI-BM-REVIEWART) & RESEARCH PROPOSAL (6 EC) (NWI-BM-RESPROP)

See Article 7.2a, paragraph 5.

6. PERSONAL AND PROFESSIONAL DEVELOPMENT (PPO) LEARNING PATHWAY

See Article 7.2a, paragraph 6.

ARTICLE 7.2E MASTER'S SPECIALISATION IN SCIENCE, MANAGEMENT AND INNOVATION (SMI)

The Master's specialisation in Science, Management and Innovation consists of the following educational units:

1. MANDATORY EDUCATIONAL UNITS (18 EC)

Disciplinary educational units (15 EC)

Course code	Course name	EC
NWI-FMT003F	Sustainable Innovation Management	3
NWI-FMT030	Reaching Sustainable Development Goals	6
NWI-FMT019A	Methods in Societal Research: Science, Management & Innovation	6

Personal and professional development (3 EC)

Course code	Course name	EC
NWI-BM089A	Career Orientation for Biologists	2
NWI-BM089B	Portfolio Master Biology	1

2. THEMATIC EDUCATIONAL UNITS (15 EC)

Students can choose from one of the following themes:

Climate and Energy

Course code	Course name	EC
NWI-FMT022	Energy and Climate	6
NWI-FMT026	Energy Systems Analysis	3
NWI-FMT032	Environmental Life Cycle Assessment	6

Health

Course code	Course name	EC
NWI-FMT023	The Future of Health	6
NWI-FMT029	How Health Systems Work	6
	Free electives	3

Biodiversity

Course code	Course name	EC
NWI-BM038A	Ecological and Environmental Concepts *	3
NWI-BM075	Biodiversity Assessment*	3
NWI-BM033F	Nature in a Crowded Country	3
NWI-FMT032	Environmental Life Cycle Assessment	6

* Students who opt for (c) Water and Environment under Article 7.2, paragraph 1, replace these courses by other courses from the list mentioned in 7.2a paragraph 2, provided these courses do not overlap with the other educational units of the programme.

3. DISCIPLINARY EDUCATIONAL UNITS (15 EC)

Choice of one of the combinations of mandatory educational units, as referred to in Article 7.2a paragraph 1, Article 7.2b paragraph 1, Article 7.2c paragraph 1, Article 7.2d paragraph 1, or Article 7.2e paragraph 1. If a student opts for the combination described in Article 7.2e paragraph 1, they must make a selection of 15 EC from the courses listed there. Alternatively, the student can choose a combination of courses referred to in Article 7.2a paragraph 1, Article 7.2b paragraph 1, Article 7.2c paragraph 1, Article 7.2d paragraph 1 or Article 7.2e paragraph 1, up to a total of 15 EC, by requesting permission from the Examination Board by means of a written motivation letter, within one year of the start of the Master's programme.

4. EDUCATIONAL UNIT OF A PHILOSOPHICAL NATURE (3 EC)

Students choose one of the following courses of a philosophical nature (3 EC):

Course code	Course name	EC
NWI-FFIL202A	Evolution and the Mind	3
NWI-FFIL203B	Bio-Ethics for Life Scientists	3
NWI-FFIL209B	Environmental Ethics	3
NWI-FFIL211B	Physics and Philosophy	3
NWI-FFIL215	Upgrading the Human?	3
NWI-FFIL216	Imagining the Anthropocene	3
NWI-FFIL217	Science and Arts	3
NWI-FFIL218	Science and Values	3
NWI-FFIL220	Philosophy of Evidence and Expertise	3
NWI-FFIL222	Philosophy of Ecological Restoration	3
NWI-FFIL302	Philosophy & Ethics in Microbiology	3

5. INTERNSHIP (30 EC) (NWI-BM-S-STAGE)

One scientific internship at university level on a biological problem. Assessment of the internship is done using the internship assessment form for the Master's phase of the study programme. The assessment should be performed by an examiner from an appropriate internship department, as described in the course catalogue.

6. REVIEW ARTICLE (6 EC) (NWI-BM-REVIEWART)

See Article 7.2a, paragraph 5 concerning the Review Article.

7. FREE ELECTIVES (6 EC)

The student can use the free elective space to extend the internship (NWI-BM-S-STAGE) by 6 EC. Students can use the free elective space to expand the Science, Management and Innovation final research project by maximum 3 EC, provided that the maximum scope of 6 EC of free electives is not exceeded in the process.

8. SCIENCE, MANAGEMENT AND INNOVATION FINAL RESEARCH PROJECT (27 EC) (NWI-FMT033)

The SMI research project may, in consultation with the SMI coordinator or a lecturer from the SMI specialisation, be completed both internally (within RU/Radboudumc) or externally (government, businesses, consulting firms, NGOs, etc.), at home or abroad. In the first month, the student writes a research plan that must be approved by the first examiner, the day-to-day supervisor from the organisation, and the second examiner. Students may only take part in the Science, Management and Innovation Final Research Project once they have successfully completed the theme-based educational units NWI-FMT019A Methods in Societal Research: Science, Management & Innovation and NWI-FMT003F Sustainable Innovation Management. The assessment of the thesis is based on the criteria described in the ***Doing your Research Project in the Science, Management and Innovation Master Specialisation: Student Guide*** manual. It is possible to extend the SMI Research Project up to a maximum of 30 EC.

ARTICLE 7.2F MASTER'S SPECIALISATION IN SCIENCE IN SOCIETY (SIS)

The Master's specialisation Science in Society consists of the following educational units:

1. MANDATORY EDUCATIONAL UNITS (30 EC)

Disciplinary educational units (27 EC)

Course code	Course name	EC
NWI-FC0046	Introduction to Philosophy and Social Studies of Science	3
NWI-FFIL218	Science and Values	3
NWI-FC0045	Science and Public Participation	6
NWI-FC0010D	Framing Knowledge	6
NWI-FFIL220 OR NWI-FC0043B	Philosophy of Evidence and Expertise OR Science and Public Policy	3 3
NWI-FC0049	Social Scientific and Philosophical Methods for Science in Society	3
SiS elective course*	Elective course	3

*The student chooses one of the following educational units:

Course code	Course name	EC
NWI-FC0013C	Science and Media	3
MED-BMS07	Science, Communication and Society	3
NWI-FFIL209B	Environmental Ethics	3
NWI-FFIL217	Science and Arts	3
NWI-FFIL302	Philosophy and Ethics in Microbiology	3
NWI-IMI003	Philosophy and Ethics for Computing and Information Science	3
NWI-FFIL221	Beyond Boundaries: An Introduction to Interdisciplinarity	3

Personal and professional development (3 EC)

Course code	Course name	EC
NWI-BM089A	Career Orientation for Biologists	2
NWI-BM089B	Portfolio Master Biology	1

2. DISCIPLINARY EDUCATIONAL UNITS (15 EC)

Choice of one of the combinations of mandatory educational units, as referred to in Article 7.2a paragraph 1, Article 7.2b paragraph 1, Article 7.2c paragraph 1, Article 7.2d paragraph 1, or Article 7.2e paragraph 1. If a student opts for the combination described in Article 7.2e paragraph 1, they must make a selection of 15 EC from the courses listed there. Alternatively, the student can choose a combination of courses referred to in Article 7.2a paragraph 1, Article 7.2b paragraph 1, Article 7.2c paragraph 1, Article 7.2d paragraph 1 or Article 7.2e paragraph 1, up to a total of 15 EC, by requesting permission from the Examination Board by means of a written motivation letter, within one year of the start of the Master's programme.

3. EDUCATIONAL UNIT OF A PHILOSOPHICAL NATURE (3 EC)

Students choose one of the following courses of a philosophical nature (3 EC):

Course code	Course name	EC
NWI-FFIL202A	Evolution and the Mind	3
NWI-FFIL203B	Bioethics for Life Scientists	3
NWI-FFIL209B	Environmental Ethics	3
NWI-FFIL211B	Physics and Philosophy	3
NWI-FFIL215	Upgrading the Human?	3
NWI-FFIL216	Imagining the Anthropocene	3
NWI-FFIL217	Science and Arts	3
NWi-FFIL218	Science and Values	3
NWI-FFIL220	Philosophy of Evidence and Expertise	3
NWI-FFIL221	Beyond Boundaries: An Introduction to Interdisciplinarity	3
NWI-FFIL222	Philosophy of Ecological Restoration	3
NWI-FFIL223	Philosophy of Mathematics	3
NWI-FFIL302	Philosophy and Ethics in Microbiology	3

A philosophy course that is taken as a compulsory course and/or as an elective course may not be chosen as a course of a philosophical nature.

4. INTERNSHIP (30 EC) (NWI-BM-S-STAGE)

One scientific internship at university level on a biological problem. Assessment of the internship is done using the internship assessment form for the Master's phase of the study programme. The assessment should be performed by an examiner from an appropriate internship department, as described in the course catalogue.

5. REVIEW ARTICLE (6 EC) (NWI-BM-REVIEWART)

See Article 7.2a, paragraph 5 concerning the Review Article.

6. FREE ELECTIVES (6 EC)

The student can use the free elective space to extend the internship (NWI-BM-S-STAGE) by 6 EC.

7. SCIENCE IN SOCIETY RESEARCH PROJECT (30 EC) (NWI-SISSTAGE)

In consultation with a SiS lecturer, the SiS graduation project can be completed both internally (at the ISIS department) and externally (government, consulting firms, NGOs, etc.). In the first month, the student writes a research plan, which has to be approved by the first examiner, supervisor and second examiner. The assessment of the thesis is based on the criteria described in the Graduation Project Guidelines SiS. Students may only take part in the Science, Management and Innovation Final Research Project once they have successfully completed 12 EC from the SiS curriculum, including at the very least the Social Scientific and Philosophical Methods for Science in Society course.

ARTICLE 7.2H MASTER'S SPECIALISATION IN SCIENCE AND EDUCATION

Note: This specialisation is closed for new students from 2024-2025.

The Master's specialisation in Science and Education consists of the following educational units:

1. DISCIPLINARY EDUCATIONAL UNITS (15 EC)

Choice of one of the combinations of mandatory educational units, as referred to in Article 7.2a paragraph 1, Article 7.2b paragraph 1, Article 7.2c paragraph 1, Article 7.2d paragraph 1, or Article 7.2e paragraph 1. If a student opts for the combination described in Article 7.2e paragraph 1, they must make a selection of 15 EC from the courses listed there. Alternatively, the student can choose a combination of courses referred to in Article 7.2a paragraph 1, Article 7.2b paragraph 1, Article 7.2c paragraph 1, Article 7.2d paragraph 1 or Article 7.2e paragraph 1, up to a total of 15 EC, by requesting permission from the Examination Board by means of a written motivation letter, within one year of the start of the Master's programme.

2. EDUCATIONAL UNIT OF A PHILOSOPHICAL NATURE (3 EC)

Students choose one of the following courses of a philosophical nature (3 EC):

Course code	Course name	EC
NWI-FFIL202A	Evolution and the Mind	3
NWI-FFIL203B	Bioethics for Life Scientists	3
NWI-FFIL209B	Environmental Ethics	3
NWI-FFIL211B	Philosophy and Physics	3
NWI-FFIL215	Upgrading the Human?	3
NWI-FFIL216	Imagining the Anthropocene	3
NWI-FFIL217	Science and Arts	3
NWI-FFIL220	Philosophy of Evidence and Expertise	3

Course code	Course name	EC
NWI-FFIL221	Compete or Collaborate? An Introduction to Disciplines and Interdisciplinarity	3
NWI-FFIL222	Philosophy of Ecological Restoration	3
NWI-FFIL302	Philosophy and Ethics in Microbiology	3

3. INTERNSHIP (30 EC) (NWI-BM-STAGEE1)

One scientific internship at university level on a biological problem. Assessment of the internship is done using the internship assessment form for the Master's phase of the study programme. The assessment should be performed by an examiner from an appropriate internship department, as described in the course catalogue.

3A. PORTFOLIO (NWI-BM054B)

The internship includes a portfolio component, which includes the educational units referred to in Article 3.3, paragraph 12. In preparing their portfolio, students orient themselves to and prepare for their future career. This is done through various assignments, such as writing cover letters, creating a CV, and attending and reflecting on career orientation activities.

4. REVIEW ARTICLE (6 EC) (NWI-BM-REVIEWART)

See Article 7.2a, paragraph 5 concerning the Review Article.

5. FREE ELECTIVES (6 EC)

Under the conditions described in Article 7.2a paragraph 3. The student can use the free elective space to extend the internship by 6 EC. If a student wishes to extend their internship by more than 6 EC, they must always request written permission to do so from the Examination Board prior to the internship.

6. EDUCATION SPECIALISATION (60 EC)

The specialisation in Science and Education is offered by the Radboud Teachers Academy (RDA). The curriculum and related regulations can be found in the EER of the RDA.

ARTICLE 7.3 DEVIATING PROGRAMME

If a student does not choose a specialisation, they must request permission from the Examination Board, by means of a motivated request and within three months of commencing the Master's programme, to modify the Master's programme.

In this context, the following educational units must be included in the alternative Master's programme:

1. Mandatory educational units (6 EC)
 - a. Course of a philosophical nature (3 EC) All philosophy courses offered by the Faculty (course code starting with NWI-FFIL) are automatically approved.
 - b. NWI-BM089A Career Orientation for Biologists (2 EC) and NWI-BM089B Portfolio Master Biology (1 EC), or a comparable course for personal and professional development worth at least 3 EC.
2. Discipline-specific educational units at Master's level (minimum 27 EC)

The courses referred to in Article 7.2 (a) to (e), paragraphs 1 and 2, are approved by definition, provided there is no overlap with other courses in the programme. The inclusion of courses from the social specialisations (Article 7.2 (f) to (h)) and other courses at Master's level should be submitted to the Examination Board for assessment.

3. Free electives (15 EC)

4. Internship and thesis components (minimum 56 EC)

This component should comprise in any case internship educational units, including a report and an oral presentation on a biological subject, totalling at least 56 EC.

5. Writing assignment (6 EC)

At least one of the educational units Review Article (NWI-BM-REVIEWART, 6 EC) and Research Proposal (NWI-BM-RESPROP, 6 EC) must be included, or a comparable component.

Components 2, 4 and 5 as mentioned above must together comprise 99 EC.

ARTICLE 7.4 DEFINITION OF FINAL PROJECT

The final project comprises all educational units of at least 27 EC.

SECTION 8. TRANSITIONAL PROVISIONS

This EER applies to cohorts from up to 4 years ago, i.e. from the 2021-2022 cohort to the present. Students from earlier cohorts should have coordinated their programme with the Examination Board in a timely manner.

Some courses (limited choice and otherwise) have been dropped in recent years or replaced by other courses. The table below shows which courses these are and, accordingly, which have been pre-approved by the Examination Board:

Old course				Replacement course			
Course code	Name	EC	Final year	Replacement	Name	EC	Remarks
NWI-BM002C	Ecology and Management of Large Rivers	3	2021	none			
NWI-MM020A	Environmental Life Cycle Assessment	3	2021	NWI-FMT032	Environmental Life Cycle Assessment	6	
NWI-FFIL212	Philosophy of Water Management	3	2023	NWI-FFIL222	Philosophy of Ecological Restoration	3	
NWI-BM041B	Principles of Systems Biology	3	2024	none			
NWI-BM054B	Master Portfolio Biosciences	0	2024	NWI-BM089B	Portfolio Master Biology	1	NWI-BM054B instead of NWI-089A and NWI-089B
NWI-BM090	Urban Evolution	2	2024	none			
NWI-BM-STAGES1	MSc (Med)Bio SMI/SIS internship	33	2024	NWI-BM-S-STAGE	MSc (Med)Bio SMI/SIS internship	30	Supplement with NWI-BM089A and NWI-BM089B
Specialisation-specific							

Old course				Replacement course			
Course code	Name	EC	Final year	Replacement	Name	EC	Remarks
Course code	Name	EC	Final year	Replacement	Name	EC	Remarks
Science in Society							
NWI-FC0048	Philosophical Methods for Science in Society	3	2024	NWI-FC0047	Social Scientific and Philosophical Methods for Science in Society	3	NWI-FC0047 and NWI-FC0048 have been integrated into NWI-FC0047
NWI-FC0044C	Methods of Societal Research	6	2023	NWI-FC0046 NWI-FC0047	Introduction to Philosophy and Social Studies of Science + Social Scientific and Philosophical Methods for Science in Society	3 3	
NWI-FC003B	Research, Responsibility and Uncertainty	3	2022	NWI-FC0045	Science & Public Participation	6	-FC0045 is a combination of NWI-FC003B and NWI-FC002B
NWI-FC002B	Science and Societal Interaction	3	2022	NWI-FC0045	Science & Public Participation	6	-FC0045 is a combination of NWI-FC003B and NWI-FC002B
NWI-FC0013C	Science and Media	3	2022	none			Students may use the course as a societal elective in SiS
NWI-FFIL300C	Philosophy of Mathematical Practice	3	2021	none			Students may use the course as a philosophy elective course
NWI-FFIL219	Philosophy of Neuroscience	3	2023	none			Students may use the course as a philosophy elective course
Science, Management and Innovation							

- Only students who were already enrolled in the Green Industries and IT theme prior to the 2025-2026 academic year may complete this theme.
- Students who started the Science, Management and Innovation specialisation in the 2025-2026 academic year but have not completed both NWI-FMT003E and NWI-FMT019 must enrol for NWI-FMT003F and NWI-FMT019A.
- Students who have completed NWI-FMT003E are not permitted to participate in NWI-FMT003F, and students who have completed NWI-FMT019 are not permitted to participate in NWI-FMT019A.
- Students who have already completed NWI-FMT003E but not NWI-FMT019 must register for NWI-FMT019A. As a result, the free elective space for these students is reduced by 3 EC.
- Students who have already completed NWI-FMT019 but not NWI-FMT003E must register for NWI-FMT003F and may do a research project (NWI-FMT033) worth 30 EC instead of 27 EC.

PART IV FINAL PROVISIONS

SECTION 9. FINAL PROVISIONS

ARTICLE 9.1 SAFETY NET SCHEME AND HARDSHIP CLAUSE

1. In all cases not covered fully or clearly by these regulations, the final decision lies with the Dean. If this concerns an educational unit in which the Dean is involved, the Vice Dean responsible for education will decide.
2. In all cases in which these regulations may result in an unreasonable or unfair situation for individual students, the Examination Board or the Dean is authorised to make an exception to the provisions in these regulations. Unless this concerns an educational unit in which the Dean is involved, in which case the Vice Dean responsible for education is authorised to do so instead of the Dean.

ARTICLE 9.2 ESTABLISHMENT AND AMENDMENTS

1. Without prejudice to the provisions in Article 7 of the Structure Regulations, these regulations are established or amended by the Dean following advice from the programme committees and approval by the Joint Assembly of the Faculty.
2. An amendment to these regulations applies in the current academic year, unless this would disproportionately damage the interests of the student.
3. Notwithstanding the provisions of paragraph 1, the Dean is authorised to drop elective educational units from the curriculum should the circumstances be deemed impossible for offering these educational units.

ARTICLE 9.3 ENTRY INTO FORCE

These regulations enter into force on 1 September 2025.

ARTICLE 9.4 PUBLICATION

The Dean is responsible for ensuring that these regulations and any amendments thereto are published in an appropriate manner via the [Radboud University website](#).

As established by the Dean on 15 July 2025.

APPENDIX 1: GUIDELINE FOR AWARDING DISTINCTIONS¹

- a. With due observance of the provisions set out in this Article, the Examination Board is responsible for deciding whether a distinction should be awarded and if so, which distinction.
- b. The distinction is calculated on the basis of all units of the examination programme for which a grade has been awarded on a scale from 1 to 10, with the exception of extracurricular units.
- c. The number of EC of the unit referred to in paragraph b shall serve as the weighting factor for the calculation of the weighted average result, unless stipulated otherwise in the programme-specific part of the EER.
- d. The distinction 'cum laude' shall be awarded if the weighted average result of the final assessment of the units referred to in paragraph b is equal to or higher than 8.0.

Both the EC-weighted average of the assessments of all the educational units of the examination with a study load of **less than 20 EC** and the EC-weighted averages of the assessments of the educational units of the examination with a study load **equal to or more than 20 EC** must be at least equal to 8.0 before any rounding off.

- e. The distinction 'summa cum laude' shall be awarded if the weighted average result of the final assessment of the units referred to in paragraph b is equal to or more than 9.0.

Both the EC-weighted average of the assessments of all the educational units of the examination with a study load of **less than 20 EC** and the EC-weighted averages of the assessments of the educational units of the examination with a study load **equal to or more than 20 EC** must be at least equal to 9.0 before any rounding off.

- f. The distinction shall not be awarded if more than 10% of the total study load of the examination programme (consisting of one or more educational units) has been resat, unless the Examination Board decides otherwise, stating their reasons for this decision.
- g. The distinction shall not be awarded if interim examinations have been resat more than once, unless the Examination Board decides otherwise, stating their reasons for this decision.
- h. The distinction shall not be awarded if the scope of the granted exemptions constitutes more than 50% of the programme, taking into account any further restrictions to the permitted number of exemptions as established in the EER.
- i. The distinction shall not be awarded if fraud was discovered in one of the educational units of the examination programme.

¹ In this guideline, 'unit' refers to an educational unit as referred to in Article 7.3, paragraphs 2 and 3 of the Act.

APPENDIX 2: FRAUD REGULATIONS

SECTION 1. INTRODUCTORY PROVISIONS

ARTICLE 1. OBJECTIVE AND SCOPE OF THE REGULATIONS

The Dean of the Radboud University Faculty of Science has drawn up the following regulations with a view to preventing fraud during interim and final examinations as referred to in Article 7.12b of the Higher Education and Research Act (Wet op het Hoger onderwijs en Wetenschappelijk onderzoek, hereinafter: 'the Act') and that are part of the teaching and examinations of the study programmes offered by the Radboud University Faculty of Science.

ARTICLE 2. DEFINITIONS

The terms used in these regulations – in so far as these terms also appear in the Act or the Education and Examination Regulations of the study programme (hereinafter: the EER) – have the same meaning as that given to them in the Act and the EER.

SECTION 2. DEFINITION OF FRAUD, PROCEDURE AND SANCTIONS

ARTICLE 3. DEFINITION OF FRAUD

1. At Radboud University, fraud is understood to mean any act or omission by a student which, by its nature, is intended to render the proper assessment of the knowledge, understanding and skills of that student or another student fully or partially impossible.
2. Fraud is understood to mean in any case:
 - a. Fraud when taking written interim and final examinations, including:
 - i. Having access to unauthorised aids as referred to in the House Rules for Radboud University Examination Rooms
 - ii. Looking at the work of others or exchanging information
 - iii. Impersonating someone else or allowing someone else to impersonate oneself during an interim or final examination
 - b. Committing fraud when writing theses or other papers, or completing assignments, including:
 - i. Plagiarism in the sense of using or copying someone else's texts, data or ideas without complete and correct references to sources, plagiarism in the sense of copying the work of another student and presenting this as one's own work, and other specifically academic forms of plagiarism
 - ii. The fabrication and/or falsification of research data
 - iii. The submission of a thesis or other paper that has been written by someone else
 - c. Other fraud during assessment and examination, including:
 - i. Taking possession of assignments, answer keys and the like, prior to the time the interim or final examination takes place
 - ii. Changing answers to questions on an interim or final examination after it has been submitted for assessment
 - iii. Providing incorrect information when requesting an exemption, an extension of the validity period, and other similar requests regarding an interim or final examination
3. Any attempt at fraud will also be considered fraud in the sense of these regulations.

ARTICLE 4. PROCEDURE FOR DETERMINING FRAUD

1. In the event that fraud is suspected, the Examination Board or the examiner will immediately inform the student. If fraud is suspected while an interim or final examination is being administered, the Examination Board or the examiner will provide the student with the opportunity to complete the interim or final examination.
2. The Examination Board or the examiner may order the student to hand over the materials involved in the suspicion of fraud.
3. For the application of the provisions in paragraphs 1 and 2, 'examiner' is also understood to mean the invigilator or another Radboud University staff member.
4. The Examination Board or the examiner will draw up a report of the suspected fraud. If the examiner draws up the report, the examiner will send it to the Examination Board immediately.
5. The Examination Board will immediately make the report referred to in paragraph 4 available to the student and will launch an investigation into the matter. The Examination Board will provide the student with the opportunity to respond to the report in writing. The Examination Board will hear both the examiner and the student.
6. Within four weeks of making the report available to the student, the Examination Board will determine whether there is evidence of fraud. The Examination Board will inform both the student and the examiner of its decision in writing. The period of four weeks may be extended by two weeks.

ARTICLE 5. REMEDIAL MEASURES

If the Examination Board determines that fraud has been committed:

- a. The Examination Board will declare that the relevant interim or final examination taken by the student (or students) in question is considered invalid, and
- b. It will document the identification of fraud and, if applicable, the sanctions imposed in the student's file.

ARTICLE 6. SANCTIONS

1. If the Examination Board determines that fraud has been committed, it may:
 - a. Decide that the student is no longer allowed to sit one or more interim or final examinations during a period to be defined by the Examination Board, being no longer than one year.
 - b. Make a recommendation to the Manager and Faculty Programme Director of the Honours Academy that the student should not be admitted to the honours programme of the University or the Faculty, or recommend that the student's participation in the honours programme of the University or the Faculty be terminated.
2. If the Examination Board establishes that serious fraud has been committed:
 - a. The Examination Board may recommend to the Executive Board that the student's enrolment in a study programme be definitively terminated
 - b. The Executive Board may definitively terminate the student's enrolment in a study programme at the recommendation of the Examination Board.
3. As described in the Guideline for Awarding Distinctions, a distinction will not be awarded if fraud has been detected in one or more of the educational units of the examination programme as a whole.
4. The sanctions as specified in this provision will be imposed as from the day following the date on which the student has been informed of the decision to impose the sanctions.

SECTION 3. FINAL PROVISIONS

ARTICLE 7. DECISIONS AND LEGAL PROTECTION

1. Decisions on the basis of these regulations may be sent to the student via OSIRIS and/or by email.
 2. For decisions based on these regulations, the student is permitted to appeal the relevant decision with the Examination Appeals Board (EAB) within six weeks of the decision date.
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ARTICLE 8. ADOPTION AND AMENDMENTS

1. These regulations are adopted and amended by the Dean.
 2. Where the content of these regulations relates to duties and powers of the Examination Board of the study programme, that content must also be ratified by that Examination Board.
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ARTICLE 9. ENTRY INTO FORCE

These regulations enter into force on 1 September 2025. On that date, these regulations will replace any previous regulations.

ARTICLE 10. PUBLICATION

1. The Dean is responsible for publishing these regulations and for appropriately disclosing any amendments thereto.
2. For the purpose of proper and clear provision of information to students and prospective students, the Dean will include these regulations as an appendix to the EER.

As established by the Dean on 15 July 2025 and ratified by the Examination Board on 15 July 2025.