

# Education and Exam Regulations 2022-2023

## Bachelor Biology

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# PART I GENERAL PROVISIONS

## Section 1. General provisions

### Article 1.1 Applicability of these regulations

1. These Education and Examination Regulations (EER) apply to the Bachelor's programmes (the degree programme in which the student is enrolled is hereinafter referred to as 'the programme'), including all their components, of the Faculty of Science. These EER outline the applicable procedures, rights, and obligations concerning teaching, interim examinations, and final examinations.
2. The present regulations apply to all students enrolled in the programme in the 2022-2023 academic year. Students who started the degree programme before 1 September 2016 and have been continuously enrolled in this programme may appeal to the EER that were active at the time of their initial enrolment in the programme.
3. Course components provided by different faculties or institutions are subject to the rules applicable at the faculty or institution in question. Components offered by the Faculty of Science are subject to the regulations described in at least one of the EER of the Faculty of Science at all times.
4. The faculty offers the following Bachelor's programmes:
  - a. Biology;
  - b. Chemistry;
  - c. Computing Science;
  - d. Molecular Life Sciences;
  - e. Physics and Astronomy;
  - f. Science;
  - g. Mathematics.
5. The degree programmes have a study load of 180 EC.
6. The degree programmes are offered exclusively as full-time programmes.
7. The Biology, Chemistry, Computing Science and Molecular Life Sciences study programmes are taught in English. The other programmes have components in English. An overview of this is provided in Article 7.2.

### 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 guidelines: The guidelines can be found in the Appendix:
  - a. Distinction Regulations.
  - b. Fraud Regulations

### Article 1.3 Definition of terms

1. The terms used in these EER, which are also used in the Higher Education and Research Act (Wet op het hoger onderwijs en wetenschappelijk onderzoek, hereinafter, 'the Act') will have the same meaning as in the Act.
2. Apart from the terms referred to in clause 1, the terms below are understood to have the following meanings:

- a. Degree programme: the Bachelor's programme, as referred to in Article 7.3a, paragraph 1 of the Act;
- b. Component: an educational unit as referred to in Article 7.3 paragraphs 2 and 3 of the Act;
- c. Student: anyone enrolled at Radboud University for participation in a degree programme or in the partial examinations or final examinations of a 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. Interim examination: an examination testing the knowledge, understanding or skills of the student in relation to a certain unit of study, as well as the assessment of the results of this examination, which is administered by at least one examiner designated by the Examining Board.
- g. Partial examination: an examination of the knowledge, insight and skills of the student, as well as the assessment of the results of the examination, which, in conjunction with one or more other partial examinations, constitute the interim examinations as referred to under clause f. In these regulations, when the term 'examination' is used; this can also be read as 'partial examination', unless explicitly indicated otherwise;
- h. Resit: an opportunity to retake a particular examination as referred to in Article 7.10, paragraph 1 of the Act. In these regulations, when the term 'examination' is used, this can also be read as 'resit', unless explicitly indicated otherwise;
- i. Final examination: an assessment, on the basis of which the Examining Board determines whether all the components pertaining to the Bachelor's programme have been completed successfully. The Examining Board may decide that the final examination also includes an investigation by the Examining Board into the knowledge, insight and skills of the candidate, as well as the assessment of the outcomes of that investigation (in accordance with Article 7.10 WHW);
- j. 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, insights and skills of the student or of another student.
- k. Examining Board: the examining board of a degree programme, established in accordance with Article 7.12 of the Act. Also see the Radboud University Structural Regulations;
- l. Examiner: the person designated by the Examining Board to administer the interim examinations, in accordance with Article 7.12 of the Act;
- m. EC: European Credits, i.e. the study load unit in accordance with the European Credit Transfer System;
- n. Work day: Mondays to Fridays, with the exception of official holidays and any other days designated by Radboud University as collective holidays;
- o. Awarding of the degree certificate: the formal confirmation that all the final examination requirements have been met;
- p. Prospectus: the guide for a particular degree programme of the Faculty of Science, containing specific information for the Bachelor's programme;
- q. The University: Radboud University;

- r. The faculty: The Faculty of Science;
- s. The education institute: the organisational unit responsible for the degree programme;
- t. Minor: a cohesive selection of components;
- u. Free elective: a freely-selected, academic, assessable component;
- v. Dual Bachelor's programme: excellence programme in which students take two Faculty of Science Bachelor's programmes simultaneously;
- w. Rules and regulations: the rules in which the Examination Board explains how it works in accordance with the Education and Examination Regulations.



# PART II GENERAL PART

## Section 2. Admission to the degree programme and education

### Article 2.1 Admission and admission requirements

1. To be admitted to the programme, students must meet the statutory (additional) prior education requirements set out by the Act.
2. Decisions regarding admission are made by the education institute on behalf of the dean.
3. The programme-specific part of these EER lists the admission requirements students must meet to be admitted to the degree programme.

### Article 2.2 Substitute requirements for insufficient prior education

Students who have a VWO diploma that does not meet the prior education requirements referred to in Article 2.1 may still enrol, with due observance of the provisions of Article 7.25 paragraph 5 of the Act, on condition that comparable requirements have been met in terms of content, subject to further assessment. The assessment procedure and the requirements are specified in the programme-specific part of these regulations.

### Article 2.3 Language requirements

1. Sufficient command of Dutch is required to participate in the programme and to sit examinations in Dutch. Non-Dutch students have met the language requirement for sufficient proficiency in Dutch if they have passed the state examination of Dutch as a second language, level 2.
2. In certain cases, the education institute may assess whether a student is sufficiently proficient in Dutch.
3. Sufficient command of English is required to participate in the programme and to sit examinations in English. This requirement is met if the student:
  - a. comes from one of the following countries: Australia, Canada (with the exception of Quebec), Ireland, New Zealand, Singapore, the United Kingdom, the United States or South Africa; or
  - b. is in possession of a pre-university education (VWO) diploma; or
  - c. is in possession of a pre-university education diploma obtained at an English-language institution in the Netherlands or elsewhere; or
  - d. has a pre-university education diploma obtained at a German secondary education institution, with English as Grundkurs; or
  - e. has a Bachelor's diploma from a university of applied sciences (HBO); or
  - f. has a Bachelor's diploma from a Dutch university; or
  - g. meets the requirements in the opinion of the programme; or
  - h. has passed one of the assessments listed below:
    - i. the TOEFL with a score of 575 or higher for the paper version;
    - ii. the TOEFL with a score of 90 or higher for the Internet version with none of the sub-scores below 20;
    - iii. the IELTS with a score of 6.5 or higher, where none of the sub-scores are

- lower than a 6.0:  
iv. the Cambridge CAE or CPE with a score of C or higher.

## Section 3. Structure and design

### Article 3.1 Final examination, degree and distinctions

1. All Bachelor's programmes conclude with the Bachelor's examination.
2. Students who pass the examinations of the Bachelor's degree programme will be awarded a Bachelor of Science (BSc) degree.
3. The degree referred to in the second paragraph is awarded exclusively if the student has earned at least half of the EC for their degree programme at this university.
4. The Examination Board can award distinctions to students who have successfully passed the degree programme final examination. The rules for awarding distinctions can be found in Article 4.7 of these EER.

### Article 3.2 General learning outcomes

1. The degree programme has the following learning outcomes for students:
  - a. acquire knowledge, understanding and skills in the relevant area;
  - b. Develop academic competences;
  - c. Prepare for further study or a future career.
2. Students who have completed one of the faculty Bachelor's programmes, as referred to in Article 7.10a paragraph 1 of the Act, shall be granted unconditional admission to at least one of the Master's programmes at the University.

### Article 3.3 Curriculum

1. The degree programme-specific part of these regulations describes all the components that make up the degree programme.
2. For each section, the lecturer must make a course guide available prior to the course, which includes a description of the course, tests with weighting factors and deadlines. This guide may coincide with the course description in the study guide.
3. The Bachelor's programmes include a component with a study load of 3 EC for the purpose of reflecting on study performance and planning, as well as boosting the development of academic skills.
  - a. A condition for obtaining the course credits (EC) mentioned above is participation in the Academic Language Proficiency course and the corresponding test in the first year of the programme. This does not apply to students who have already completed the course and associated test at Radboud University.
  - b. The completion of the Academic Language Proficiency test with a passing grade is not required. A resit for the language test is possible if desired by the student.
4. The degree programme includes a free elective component with a minimal study load of 6 EC. The electives cannot have substantial overlap in content with courses from the mandatory component. Courses that overlap with the electives within the mandatory programme or in the minor component are not allowed either.



5. Every programme has a minor component of at least 15 EC in which students can participate in at least one minor.
6. If a minor is not accessible to students of a specific Bachelor's programme, this is mentioned in the programme-specific part of these EER.
7. The minors offered by Radboud University can be found in the study guide. The approval of the Examination Board must be requested if a student wishes to do a minor that is not offered by Radboud University. This minor will be labelled as a "free minor" and needs to meet the following requirements:
  - a. the minor encompasses at least 15 EC and at most 30 EC;
  - b. the minor is thematically coherent;
  - c. there should be no substantial overlap with other parts of the Bachelor's degree programme.
8. The degree programme also includes one or more components of a philosophical nature, in total amounting to at least 3 EC, as well as a writing skills component of 3 EC.
9. Finally, the degree programme includes an individual final aptitude test (hereinafter referred to as the 'Bachelor's thesis') with a study load of 12 EC.
10. In addition to the provisions of paragraph 9, the Bachelor's thesis can be expanded. In all cases where expansion is possible, this will be stated in the programme-specific part of these EER.
11. The composition of the Bachelor's programme compiled by the student must be presented for approval to the Examining Board no later than three months before the expected examination date. The Examination Board will decide whether to grant approval within a month of receiving the submitted programme.
12. Students are permitted to add components to the examination programme. These components are considered extra-curricular and do not count towards the determination of the distinction.
13. If a student has a choice between components within the curriculum and the student has passed more than one of these components, then the student can decide which components will count toward their distinction if one or more of the components are extra-curricular.

### **Article 3.4 Sequence of education and interim examinations**

1. Students may not start the final aptitude assessment (Bachelor's thesis) before obtaining a minimum of 120 EC of the degree programme, including the components of the first year.
2. The programme-specific part of these EER may contain further criteria for the order in which components may be taken and the related interim examinations.

### **Article 3.5 Types of interim examination**

1. Each component of the degree programme is concluded by an interim examination. Interim examinations may comprise more than one modular partial examination and 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 assignment.
2. Prior to the beginning of the academic year, information will be provided in the study guide on each individual component regarding how the interim examinations will be administered and how their results will be determined, taking the weighting of any partial exams into account. At the request of the student or the examiner, the Examination Board may allow an interim examination to be administered in a form other than stated above, if this is not to the detriment of the student.
  3. In cases where an interim examination has admission requirements, the admission requirements will be published in the prospectus before the start of the academic year, see Article 3.4, paragraph 2. This requires permission from the programme coordinator. Contrary to the above provisions, the admission requirements for the courses completed in the fourth period may still be changed up until the start of the second period, with permission from the programme coordinator.
  4. An interim examination has no entry requirements. If students are enrolled in a component, they are admitted to all sub-components, including the interim examination.
  5. Students with disabilities are given the opportunity to take interim examinations in a manner appropriately suited to their disability. The Examining Board shall seek expert advice and counsel prior to reaching its decision if necessary. If the students in question require 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.
  6. During oral examinations, no more than one person is tested at a time, unless decided otherwise by the Examination Board.
  7. Oral interim examinations are not public, unless the Examining Board has deemed otherwise in exceptional cases. All oral examinations are recorded. A second examiner or a designated observer may be present as an alternative to recording.

### **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 a course in a relevant subject at a university or institute of higher vocational education (HBO);
  - b. demonstrates that they have adequate knowledge and skills regarding the component in question as a result of relevant work or professional experience.
2. If the degree programme allows group exemptions, then these are included in the programme-specific part of these regulations.
3. Only one grade for each course may be registered for a single degree programme. If a course is also part of another examination programme, this course will be listed on the diploma as an exemption.
4. Students who were first enrolled after 1 September 2017 can never have more than 70 EC of exemptions, as stated in paragraph 1.
5. All results for a degree programme achieved before the date of the first enrolment are stated as exemptions on the degree programme's diploma. These exemptions do not

count towards the 70 EC if the courses are only included in one examination programme, as stated in clause 4.

6. Exemptions as referred to in paragraph 1 cannot be granted for the Bachelor's thesis.
7. As an exception to the provision in paragraph 6, students who do dual Bachelor's programmes can receive exemptions for a Bachelor's thesis if they have completed a Bachelor's thesis for another programme within the Faculty of Science.

### **Article 3.7 Term of validity of successfully completed interim examinations**

1. The term of validity of successfully completed interim examinations is unlimited.
2. Results obtained for interim examinations are valid until the end of the academic year at least. The lecturer can decide to extend the term of the validity for the result of interim examinations.

### **Article 3.8 Elective programmes**

The programme Examination Board shall decide on a request for authorisation to follow a free education programme as referred to in Article 7.3d WHW. The Examination Board will verify whether the programme fits within the domain of the degree programme under the authority of the Examination Board, whether it is sufficiently cohesive, and whether the level is adequate in the context of the programme's exit qualifications. The programme-specific part of these EER may contain further criteria for the order in which components may be taken and the related interim examinations.

## **Section 4. Examinations**

### **Article 4.1 Frequency of interim examinations**

1. Students are given the opportunity to take the examinations at least twice per academic year per interim examination.
2. Contrary to the provisions of paragraph 1, a degree programme coordinator may decide to offer only one opportunity for an interim examination or partial examination. If only one opportunity is given to take an interim examination or partial examination, this is stated in the programme study guide before the start of the academic year.
3. Notwithstanding the provisions in the first paragraph, there will be at least one opportunity in the following year to take an interim examination for a course that was taught for the final time in a particular academic year.
4. If a certain component is not given in a particular academic year, the opportunity to take the corresponding 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 course examinations**

1. Students who register through Osiris for a component are automatically registered for the first interim examination opportunity in the relevant academic year. This does not apply to students whose enrolment in the degree programme has not yet been completed.

2. Students can register for an examination right up until 11:59 pm on the day prior to a period of five working days before the date of the examination. Registration is no longer possible after this date, unless the head of Education Centre decides otherwise in special cases on behalf of the dean.
3. A successfully passed examination may be taken again. If a student resits an interim examination, the most recent result will determine the final result.

### **Article 4.3 Confirmation of examination results**

1. The result of an interim examination is determined by an examiner in the form of a grade on a scale from 1 (lowest possible grade) to 10 (the highest possible grade), consisting exclusively of whole numbers or half numbers. However, a grade of 5.5 is never given. When rounding off between 5 and 6, the rule is that a grade lower than 5.5 is rounded down to a five (5), which is an insufficient grade, meaning the educational component has not been successfully completed; a 5.5 and higher is rounded up to a six (6), meaning that the educational component has been successfully completed. In addition to results in the form of a grade, the assessments 'completed', 'not completed', 'satisfactory', 'not satisfactory', and 'good' may also be awarded.
2. Notwithstanding the provisions of paragraph 1, partial examinations may also be graded to one decimal point on a scale of 1 to 10. Only the final grade is rounded off.

### **Article 4.4 Publication of results**

1. The examiner shall determine the result of the Bachelor's final project within 15 working days after the presentation of the final Bachelor's project has taken place and after the final Bachelor's project has been submitted in <http://thesissubmission.science.ru.nl>.
2. The examiner shall determine the result of a written interim examination within 10 working days of the date it was administered for interim examinations in the first year of the degree programme, and within 15 working days for interim examinations in the other years of the degree programme. Here, the precondition applies that there must be at least ten working days between the date of the publication of the result in Osiris and the date of the resit.
3. Contrary to the provisions in paragraph 2, the examiner shall determine the result of an interim examination in the fourth period no later than nine days before the scheduled date of the corresponding resit. The lecturer always has at least five working days after the written examination to determine the result.
4. Contrary to the provisions set out in paragraph 2, the examiner shall determine the result of an oral examination within two working days of the date it was administered.
5. In special cases, the Examination Board may extend the term in which the result must be determined as referred to in paragraph 2 and 3 by a maximum of 10 working days. This is not possible for the interim examinations in the second period of the first year and for the interim examinations in the fourth period.
6. In this statement of the result of an interim examination, the student is also informed of their right to inspection, referred to in Article 4.5 as well as about the right of appeal to the Examination Appeals Board.

7. Students may submit an appeal of a decision by the Examination Board to the Examination Appeals Board within six weeks.

#### **Article 4.5 Right of inspection and explanation**

1. Students may request access to review and inspect all graded work within at least 30 working days following publication of a written interim examination result. For the results of interim examinations with 'open' questions, at their request, the student shall be granted a copy of their graded work at cost.
2. During the period referred to in paragraph 1 of this Article, 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 result was based.
3. Students must be offered at least one opportunity to inspect or have their examinations explained, as referred to in paragraphs 1 and 2. If the student demonstrates that they are or were unable to attend an inspection, they may request the Examination Board to allow them another opportunity to inspect the examination, within the period referred to in the first paragraph if possible. In all cases, the inspection must take place at least five working days before the resit of an interim examination. For examinations in the fourth period, students may view their work until one working day before the resit.
4. The examiner shall retain all written interim examinations and related papers (assignments or otherwise) that count towards the final result for a period of two years following the date when the examination was administered. Bachelor's programme reports and theses must remain available for visitations, accreditations and inspections, and shall be kept for seven years.

#### **Article 4.6 Confirmation of examination results**

1. Students are given the opportunity to take the final examination after they have provided sufficient proof of passing the components leading up to the final examination.
2. Examinations are scheduled each month.
3. The Examining Board will determine the result of the final examination, as well as the rules in relation to the manner in which the result of the examination is determined. The result of the examination is determined by the Examining Board within five weeks following the student's request. If the examination takes place in July, the results will be determined no later than 31 August. Where needed in relation to entry requirements for a subsequent programme or the acceptance of a job, a statement can be released indicating that the student has met the requirements of the examination within five days. This is only possible if the student has met the criteria specified in clause 1.
4. Prior to determining the result of the final examination, the Examination Board may evaluate and assess the student's knowledge with respect to one or more components or aspects of the programme, if and to the degree to which the results of the related interim examinations justify this.

## **Article 4.7 Awarding distinctions**

The guidelines concerning distinctions can be found in the Appendix of the Guideline for Distinction Regulations.

## **Section 5. Study performance, guidance, counselling and evaluation of education**

### **Article 5.1 Study performance and support**

1. The faculty dean is responsible for recording student results in such a way that, upon request, the Examination Board can respond by providing the student with an overview of the progress of the study programme within a reasonable time frame.
2. The Dean is responsible for providing adequate student counselling.

### **Article 5.2 Binding study advice regulations**

1. On behalf of the dean, the First-year Study Advice Committee (Commissie Studieadvies Eerste Jaar) will advise students on continuing their degree programme. This will occur at the end of the first year, but no later than 31 August, assuming the student has been registered for the full-time Bachelor's programme as referred to in Article 7.8b of the Act.
2. The First-year Study Advice Committee shall issue positive advice to students who have completed at least 39 EC of the first-year curriculum.
3. The First-year Study Advice Committee will issue negative advice to students if they do not meet the requirements referred to in paragraph 2, unless one or more of the (personal) circumstances, as referred to in Article 5.4 of these regulations, are applicable.
4. In case of a binding rejection, the First-year Study Advice Committee shall formulate a plan to inform the student of negative binding study advice and provide the student with the opportunity to be heard before the binding study advice is issued.
5. In order to determine whether the required number of EC, as referred to in paragraph 2, have been obtained, EC granted for exemptions will be taken into account.
6. If students have registered for a full-time programme after 31 January, the First-year Study Advice Committee will give binding study advice at the end of their second study year. The First-year Study Advice Committee will give positive advice to students if all components from the first year are concluded successfully.
7. Students who switch degree programmes after 31 January, within the Bachelor's programmes Chemistry, Molecular Life Sciences and Science will receive the binding study advice as referred to in paragraph 1 at the end of the first academic year.
8. Students who terminate their enrolment before 1 March will not receive binding study advice. If they re-enrol for the same programme in the following academic year, they will receive binding study advice at the end of the relevant academic year. The provisions of the second sentence of paragraph 6 apply accordingly.
9. A student may appeal negative binding study advice to the Examination Appeals Board within six weeks. The appeal does not suspend the validity of the binding study advice.



### **Article 5.3 Preliminary recommendations**

1. In anticipation of the advice referred to in Article 5.2, the First-year Study Advice Committee will issue preliminary study advice at the end of the first semester (no later than 28 February) on the basis of the results of the student to date.
2. The preliminary study advice is intended as a warning for students who have failed to make adequate progress. The students in question will be invited for an interview with the student advisor to discuss how their study results could be improved on or what other alternative programmes would suit them better.

### **Article 5.4 Special (personal) circumstances**

1. The First Year Study Advice Committee shall take into account special (personal) circumstances in their decision on binding study advice, as stated in Article 2.1 of the Act's Implementation Decree, insofar as these circumstances have been reported to the student advisor, a student dean or another designated person by the student or by someone else on behalf of the student. The student may be asked to further substantiate or justify claims of personal circumstances.
2. Only the circumstances mentioned in or supported by the Act are eligible under special (personal) circumstances.

### **Article 5.5 Duration of the period of rejection**

1. Students who have received negative binding study advice may not re-enrol in the relevant Bachelor's programme for a period of three years, or for any other Bachelor's programmes that the dean has determined fully or partially share the first year. In any case, this concerns the Bachelor's programmes in Chemistry, Molecular Life Sciences and Science.
2. In the event that a student registers again for the degree programme after the period referred to in paragraph 1, this registration will be considered to be the first registration for the purposes of this section.

### **Article 5.6 No negative binding study advice or deferral of the decision**

1. On the basis of the circumstances referred to in Article 5.4 of these regulations, the dean, having heard the First Year Study Advice Committee, may decide not to attach a binding rejection to the negative study advice. Having heard the Committee on Binding Study Advice for First-Year Students, the dean may also decide to not attach a binding rejection to the negative study advice for the time being.
2. If negative study advice is not yet subject to a binding rejection pursuant to paragraph 1, the First Year Study Advice Committee will issue a binding rejection, as stipulated in Article 5.2, before the end of the second study year if, by that time, the student has yet to obtain the 60 EC from the first year.

### **Article 5.7 Method of evaluating education**

In compliance with the quality assurance system of the university as described in the Handboek Kwaliteitszorg Onderwijs Radboud Universiteit (Radboud University Quality

Assurance Manual), the dean shall ensure that the education of the degree programmes is evaluated systematically.

# PART III PROGRAMME-SPECIFIC PART

## Section 6. Admission to the degree programme and education

### Article 6.1 Selection and placement regulations

Radboud University has set a fixed maximum number of 220 students for the Bachelor's programme in Biology (hereinafter: the programme). Candidates are considered for a spot by taking part in the procedure for application and selection. The regulations for 'Selection and placement for Biology Bachelor's' can be found on the website of the programme ([Admission and application \(ru.nl\)](https://www.ru.nl/admission-and-application)). The application and selection for the programme will be carried out by the Biology Application and Selection Committee, on behalf of the Executive Board.

General provisions:

1. The assignments belonging to the application procedure can only be completed and submitted once a year.
2. The test structure and assessment are the responsibility of the Biology Application and Selection Committee.
3. If a candidate does not fully, not in time, or not according to the required method, meet the conditions in the regulations 'Application and selection for Biology Bachelor's' and/or does not comply with the rules that apply while taking the test, the Biology Application and Selection Committee can decide to not assess the candidate's work.
4. In case fraud is detected, a candidate may immediately be excluded from the selection.
5. The results of the application assignments cannot be debated. There is no opportunity to inspect the assessment of the submitted application assignments.
6. After a candidate is selected for a place, the candidate must start the programme directly in the following academic year.
7. In following years, the candidate is allowed to register for the programme a maximum of three times. Application results cannot be transferred to a following academic year.
8. According to the regulations 'Application and Selection for Numerus Fixus Bachelor's Programmes', the candidate is allowed to file an objection concerning the selection decisions to the Executive Board.
9. In case a situation occurs that is not covered by the regulations 'Selection and application for Biology Bachelor's', the Biology Selection and Placement Committee will make a decision on behalf of the Executive Board.
10. In instances in which the conditions in the regulations 'Selection and placement for Biology Bachelor's' differ from the 'Registration at Radboud University' (Inschrijven van de Radboud Universiteit) regulations, and the regulations the 'Application and Selection for Bachelor's Programmes with quotas' more specifically, the latter shall prevail.

### Article 6.2 Prior education requirements

A candidate qualifies for the selection process of the programme if they:

1. have a VWO diploma (including the courses English, Biology, Physics, Chemistry, and Maths A or B); or
2. have a biology-related Bachelor's diploma from a university of applied sciences (HBO) or an equivalent diploma from a university of applied sciences; or
3. have an admission statement based on the Colloquium Doctum of the programme; or
4. have an international diploma that is equivalent to one of the abovementioned qualifications (see Article 6.1 introduction).

## Section 7. Structure and design

### Article 7.1 Programme-specific learning outcomes

In addition to the general learning outcomes mentioned in the general part of these EER, the Bachelor's programme in Biology expects that a student of Biology graduating in 2022-2023:

1. is able to critically analyse timely and topical biological concepts, based on a broad knowledge and understanding of the functioning and the behaviour of (living) organisms (plants, animals including humans, microorganisms and viruses) with reference to the relationships between organisms, the levels of organisation within nature (molecule, cell, organ, organism, population and ecosystem), biological processes (evolution, development, adaptation, disease) and the biotic and abiotic environment.
2. understands the complexity and interdisciplinarity of (medical) biology: connects the different subdisciplines in (medical) biology and applies knowledge about data analysis, mathematics, physics, chemistry and computer science to (medical) biological research correctly. The Bachelor's student is knowledgeable about quantitative and big data approaches and applies this knowledge in a multidisciplinary research environment to process diverse data sets in order to achieve a better understanding of (medical) biological systems.
3. understands the scientific method: i.e. correctly interprets how (medical) biological knowledge and understanding is established and understands how theories can be tested experimentally and how knowledge obtained from experiments can lead to new insights that contribute to the (medical) biological knowledge base.
4. can apply the scientific method: i.e. uses both theoretical and practical knowledge in order to formulate hypotheses about (medical) biological problems, develops experiments and executes experiments as a means of testing these hypotheses, oversees and interprets the results and, on the basis of these, draws conclusions and reports on the results of the research.
5. applies basic techniques that are relevant to (medical) biological research and successfully adopts new experimental techniques.
6. gathers and understands scientific literature, distinguishes between major and minor issues in an article and interprets the knowledge from the literature in the context of the knowledge that has already been acquired.
7. reports on and discusses their own research and literature studies in a clear manner, both verbally and in writing in accordance with the general format of a scientific journal or in another appropriate format to a broad scientific or non-scientific audience.

8. collaborates as a member of a (scientific) team and executes individual tasks within this team and competently shares the results that have been obtained.
9. reflects on and forms an opinion about the ethical and societal implications of (medical) biological research and argues this opinion in both its societal and scientific contexts.
10. reflects on their own actions, ambitions, skills and perspectives, thus shaping their own career based on informed choices that were made in the Bachelor's minor programme and/or on subsequent choices for a Master's programme, including its specialisations, or in continuation of work in the professional field.
11. behaves in accordance with Scientific Integrity Regulations, as specified in the relevant University regulations.

## Article 7.2 Programme language

The study programmes are taught in English.

## Article 7.3 Composition of the first year of the programme

Subject to the general provisions of these EER, the degree programme consists of the following compulsory components (60 EC):

Course code	Course name	EC
NWI-BP001B	Introduction to the Bachelor Programme	0
NWI-BP001C	Research Skills	0
NWI-BP003B	Evolution and Development of Plants	6
NWI-BP004C	Animal Evolution and Adaptation	6
NWI-BP006B	Histology	3
NWI-BP007C	Cellular Biochemistry	6
NWI-BP010C	Molecular Biology and Recombinant DNA	3
NWI-BP012C	Statistics 1	3
NWI-BP024C	Mathematics for Biologists	3
NWI-BP027B	Biodiversity	6
NWI-BP030	Ecology	6
NWI-BP031	Genomics and Big Data	6
NWI-BP032	Human Biology	6
NWI-BP033	Microbiology	6
NWI-RADAR-EN	RADAR: Academic Language Proficiency	0

## Article 7.4 Composition of the second and third year of the programme

### 1. Compulsory components (42 EC)

The second and third year of the programme contain the following compulsory components:

Course code	Course name	EC
NWI-BB005C	Animal Physiology	3
NWI-BB069B	Plant Physiology	6
NWI-BB071B	Man and Environment	3
NWI-BB076B	Bachelor portfolio Biosciences (Note: This component starts in the first year of the degree programme.)	3
NWI-BB085C	Brain and Behaviour	6
NWI-BB090	Microbial Metabolism	6
NWI-BB091	Genetics	3
NWI-BB093	Statistics 2	3
NWI-BB099	Biology Essay	3
NWI-FCEM02B	Writing about Science	3
NWI-FFIL100	Philosophy and Ethics of Science	3

## 2. Limited choice electives (60 EC)

The second and third year of the programme contain an elective space of 60 EC. Students of the 2018 cohort and later have to register for a learning path in the second year. Students of previous cohorts can also choose this.

The learning paths 1 to 7 below consist of 30 EC, each with 12 to 18 EC of compulsory courses: The remaining 12 to 18 EC are preferably chosen from the specific curriculum courses as listed in the study guide (<https://www.ru.nl/courseguides/science/bachelor/bachelor-biology-0/general-information/learning-trajectories-minors/>). However, students are free to choose courses from other curricula, list BB1 and list BB2.

The remaining 30 EC can be filled with additional courses from the learning pathways, the BB1 and BB2 lists and/or be used for a minor (15-30 EC).

### ***Biology learning paths and compulsory courses:***

1. Physiology and Adaptation (PA). With this learning path, the student has to take two of the four compulsory courses.
  - a. NWI-BB043B – Plant Genome Analysis (6EC)
  - b. NWI-BB018C – Ecophysiology of Plants (6EC)
  - c. NWI-BB048B – Endocrinology (6EC)
  - d. NWI-BB020C – Animal Adaptation Physiology (6EC)
2. Ecology (Ec)
  - a. NWI-BB018C – Ecophysiology of Plants (6EC)
  - b. NWI-BB060B – Animal Ecology (6EC)
  - c. NWI-BB036B – Applied Ecology (6EC)



3. Man and the Environment (ME)
  - a. NWI-MB023C – Man and Nature: Present, Past and Future (6EC)
  - b. NWI-MB021C – Geographic Information Systems (6EC)
4. Microbiology (Mb)
  - a. NWI-BB024B – Physiology of Microorganisms (6EC)
  - b. NWI-BB027B – Applied & Environmental Microbiology (6EC)

***Medical Biology learning paths and compulsory courses:***

5. Human Biology (HB). With this learning path the student has to take two of the three compulsory courses.
  - a. NWI-BB019B – Immunology (6EC)
  - b. NWI-BB025B – Human Pathology (6EC)
  - c. NWI-BB047C – Medical Embryology (6EC)
6. Neurobiology
  - a. NWI-BB092 – Neural Basis of Cognition and Perception (6EC)
  - b. NWI-BB094 – Neurons and Synapses (6EC)
7. Functional Genomics
  - a. NWI-BB017C – Advanced Molecular Biology (6EC)
  - b. NWI-BB064B – Functional Genomics (6EC)
8. Free learning trajectory (a learning path that can be selected completely freely).

***Medicine Minor (30EC), MED-MI-GNK-BIO***

Participation in the Medicine minor is only permitted after a selection. The courses within the minor can only be chosen as part of the complete minor and not separately. The minor will be offered for the last time in 2022-2023.

***3. Free electives (6 EC)***

The second and third year of the programme contain a free elective component of 6 EC, to be filled with assessed courses at the academic Bachelor's level (provided with a course code). A maximum of 3 EC of the free elective space can be used to expand the Bachelor's internship (NWI-BB-STAGE).

***4. Bachelor's internship (12 EC), NWI-BB-STAGE***

The Bachelor's internship includes a (medical) biological research question that is investigated through scientific experiments and/or data analysis. The findings are recorded and presented in a written report and an oral presentation. The internship must take place at a department of Radboud University or Radboud university medical center, or at an external research department, provided that permission is given in writing by the Examination Board prior to the start of the internship. The internship also takes place under the responsibility of an internal

examiner (i.e. an examiner connected to the Radboud University or the Radboud university medical center). Assessment of the Bachelor's internship will be conducted with the internship assessment form for the Bachelor's phase of the programme.

## Section 8. Transitional provisions

1. The courses NWI-BP007B Cellular Biochemistry, NWI-BP010B Molecular Biology and Recombinant DNA, NWI-BP011B Genetica en Populatiegenetica, NWI-BP012B Statistiek, NWI-BP013B Organisme en Milieu, NWI-BP015B Populatie en Evolutiebiologie, NWI-BP019B Humane Biologie, NWI-BP024B Wiskunde, NWI-BP025B Humane en Functionele Biologie, NWI-BP026B Pathobiologie, NWI-BP028B Vaardigheden en Symposium, NWI-BP029D Microbiology may be used as part of the compulsory first year component, provided there is no overlap with other parts of the programme.
2. Cohorts starting before 2018 may include NWI-BP031 Genomics and Big Data, NWI-BP027B Biodiversity and NWI-BP032 Human Biology in their free elective component, provided there is no overlap with other parts of their programme.
3. Cohorts who began before 2018 may, in lieu of NWI-BP012B, take NWI-BB077B Statistics 2 as a required component of the first year.
4. NWI-BB005B Dierfysiologie, NWI-BB068B Biofysica, NWI-BB070B Biologie van Microorganismen, NWI-BB072C Bachelor Essay may be used as part of the compulsory second and third year component, provided there is no overlap with other parts of the programme.
5. 2016 and 2017 cohorts may include NWI-BB028B History of Biology in the compulsory component of the second and third year.
6. The courses NWI-BB020B Adaptation Physiology, NWI-BB023B Animal Cell Biology, NWI-BB032B Biotechnologie van Planten, NWI-BB034B Neurobiology, NWI-BB051B Applied Bioinformatics, NWI-BB063B Neuroscience, NWI-BB065B Pathophysiology of the Kidney, NWI-BB077B Statistiek II, NWI-BB080B Neurophysiology of Cognition and Behaviour and NWI-BB085B Brain and Behaviour may be used as part of the limited choice electives.
7. The course NWI-BB099 Biology Essay and 3 EC of limited choice electives may be substituted with the course NWI-BB072C Bachelor Essay.
8. The course NWI-BB099 Biology Essay may be used within the limited choice electives.
9. The following combinations of courses may not both be included in the same examination programme:
  - a. NWI-BP007B Cellular Biochemistry and NWI-BP007C Cellular Biochemistry
  - b. NWI-BP007C Cellular Biochemistry and NWI-BB023B Animal Cell Biology
  - c. NWI-BP010B Molecular Biology and Recombinant DNA and NWI-BP010C Molecular Biology and Recombinant DNA
  - d. NWI-BP011B Genetica en Populatiegenetica and NWI-BB091 Genetics
  - e. NWI-BP012B Statistiek and NWI-BP012C Statistics 1
  - f. NWI-BP012C Statistics 1 and NWI-BB077B Statistiek 2

- g. NWI-BP013B Organisme en Milieu and NWI-BP030 Ecology
- h. NWI-BP015B Populatie en Evolutiebiologie and NWI-BP030 Ecology
- i. NWI-BP019B Humane Biologie and NWI-BP032 Human Biology
- j. NWI-BP024B Wiskunde and NWI-BP024C Mathematics for Biologists
- k. NWI-BP025B Humane en Functionele Biologie and NWI-BP032 Human Biology
- l. NWI-BB032B Biotechnologie van Planten and NWI-BB032C Biotechnology of Plants
- m. NWI-BB005B Dierfysiologie and NWI-BB005C Animal Physiology
- n. NWI-BB020B Adaptation Physiology and NWI-BB020C Animal Adaptation Physiology
- o. NWI-BB070B Biologie van Micro-organismen and NWI-BP033 Microbiology
- p. NWI-BB080B Neurophysiology of Cognition and Behaviour and NWI-BB080C Neural Basis of Motor Control;
- q. NWI-BB085B Brain and Behaviour and NWI-BB085C Brain and Behaviour;
- r. NWI-BB085B Brain and Behaviour and NWI-BB092 Neural Basis of Cognition and Perception.

# 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 decision lies with the dean.
2. In all cases in which these regulations may result in an unreasonable or unfair situation for individual students, the Examining Board or the dean is authorised to make an exception to the provisions in these Education and Examination Regulations.

### Article 9.2 Establishment and amendments

1. Contrary to the provisions in Article 7 of the Structure Regulations, these regulations are drawn up or amended by the dean after receiving advice from the programme committees and after having obtained the approval of the Joint Assembly of the faculty.
2. Amendments to these regulations do not take effect in the current academic year, unless this disproportionately compromises the student's interests.
3. Contrary to paragraph 1, the dean is authorised to drop elective components from the curriculum should the circumstances be deemed impossible for offering these courses.

### Article 9.3 Entry into force

These regulations enter into force on 1 September 2022.

### Article 9.4 Publication

1. The dean is responsible for publishing these regulations and any amendments thereto.
2. Interested parties may consult these regulations via the prospectus.

As determined by the dean on 14-07-2022.

## Appendix 1: Guideline for awarding distinctions

- a. With due observance of the provisions set out in this Article, the Examining Board is responsible for the decision of whether a distinction shall be awarded and if so, which distinction.
- b. The distinction shall be calculated on the basis of all components of the examination programme for which a grade has been awarded on a scale ranging between 1 and 10, with the exception of extra-curricular components.
- c. The number of EC of the component 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 components referred to in paragraph b is equal to or higher than 8.0.  
Both the EC-weighted average of the assessments of all exam parts with a size of **less than 20 EC** and the EC-weighted average of the assessments of all exam parts with a size **equal to or more than 20 EC** must be at least 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 components referred to in paragraph b is at least 9.0.  
Both the EC-weighted average of the assessments of all exam parts with a size of **less than 20 EC** and the EC-weighted average of the assessments of all exam parts with a size **equal to or more than 20 EC** must be at least equal to 9.0 before any rounding off.
- f. A distinction shall not be awarded if more than 10% of the total study load of the examination programme (being one or more components) has been resat, unless the Examining Board decides otherwise, stating the reasons for this decision.
- g. A distinction shall not be awarded if exams have been resat more than once, unless the Examining Board decides otherwise, stating the reasons for this decision.
- h. A distinction is not granted if the extent of the granted exemption includes more than 50% of the programme, considering possible further restrictions to the number exemptions as stated in the EER.
- i. The distinction shall not be awarded if fraud was discovered in one of the exams of the examination programme.

## ***Appendix 2: Fraud Regulations***

### ***Section 1. Introductory provisions***

#### ***Article 1. Objective and scope of the regulations***

The Dean of the Faculty of Science at Radboud University 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: WHW)) that are part of the teaching and exams of the study programmes in the Faculty of Natural Sciences, Mathematics and Computer Science at Radboud University.

#### ***Article 2. Definitions***

The terms that are used in these regulations – in so far as these terms are also used in the WHW or the Education and Examination Regulations of the degree programme (hereinafter: the EER) – have the same meaning that is given to these terms in the WHW 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 in general is defined as:

a) Fraud when taking written interim and final exams, 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 exam.

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 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 examination, including:

i. Taking possession of assignments, answer keys and the like, prior to the time the exam takes place;

ii. Changing answers to questions on an examination after it has been submitted for assessment;

iii. Providing incorrect information when requesting exemption, an extension of the validity period, and other similar requests regarding an 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 Examining Board or the examiner will immediately inform the student. If fraud is suspected while an exam is being given, then the Examining Board or the examiner will provide the student with the opportunity to complete the exam.

2. The Examining Board or the examiner may order the student to provide the materials involved in the suspicion of fraud.

3. For the application of the provisions in paragraphs 1 and 2, 'examiner' is understood to mean the invigilator or another Radboud University staff member.

4. The Examining Board or the examiner will draw up a report of the suspected fraud. If the examiner draws up the report, they will send it to the Examining Board immediately.

5. The Examining Board will immediately make the report referred to in paragraph 4 available to the student and will begin an investigation into it. The Examining Board will provide the student with the opportunity to respond to the report in writing. The Examining Board will hear both the examiner and the student.

6. Within four weeks of making the report available to the student, the Examining Board will determine whether there is evidence of fraud. The Examining 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 Examining Board determines that fraud has been committed:

a) It will declare the exam in question to be 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 Examining Board determines an instance of fraud, it is able to:

a) Decide that the student is no longer able to sit for one or more exams during a period to be defined by the Examining Board, being no longer than a year;

b) Decide that no distinction will be granted on the student's diploma;

c) Make a recommendation to the Dean 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 Examining Board establishes that serious fraud has been committed:

a) the Examining Board can 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 suggestion of the Examining Board.

3. The sanctions as specified in this provision will be imposed on the day following the date on which the student has been informed of the decision to impose the sanctions.

### **Section 3. Transitional provisions**

Not applicable.

### **Section 4. Final provisions**

#### **Article 7. Decisions and legal protection**

1. Decisions on the basis of these regulations may be sent to the student digitally or by email.

2. For decisions based on these regulations, the student is permitted to appeal the relevant decision within six weeks of the decision date to the Examination Appeals Board (EAB).

#### **Article 8. Adoption and amendments**

1. This scheme is adopted and amended by the dean.

2. If the content of these regulations relates to duties and powers of the Examining Board of the study programme, that content must be approved by that Examining Board.

### **Article 9. Entry into force**

These regulations enter into force on 1 September 2022. On that date, these regulations will replace the preceding 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 includes these regulations as an appendix to the Education and Examination Regulations (Onderwijs- en Examenreglement (EER)).

As determined by the dean on 14-07-2022 and ratified by the Examining Board on 12-09-2022.

# APPENDIX

List BB1 Electives offered by the Biosciences educational institute

Course code	Course name	EC
NWI-BB011B	Biology and Society	3
NWI-BB017C	Advanced Molecular Biology	6
NWI-BB018C	Ecophysiology of Plants	6
NWI-BB019B	Immunology	6
NWI-BB020C	Animal Adaptation Physiology	6
NWI-BB021B	Neurobiophysics	6
NWI-BB022B	Systems Ecology	6
NWI-BB024B	Physiology of Microorganisms	6
NWI-BB025B	Human Pathology	6
NWI-BB027C	Applied and Environmental Microbiology	6
NWI-BB028B	History of Biology	3
NWI-BB032C	Biotechnology of Plants	6
NWI-BB036B	Applied Ecology	6
NWI-BB039C	Neurodevelopment	6
NWI-BB043B	Plant Genome Analysis	6
NWI-BB047C	Medical Embryology	6
NWI-BB048B	Endocrinology	6
NWI-BB060B	Animal Ecology	6
NWI-BB064B	Functional Genomics	6
NWI-BB080C	Neural Basis of Motor Control	6
NWI-BB081B	Cognitive Neuroimaging	6
NWI-BB083B	Ecological Theory and Data Analysis	6
NWI-BB084B	Molecular Principles of Development	6
NWI-BB086	Genomics for Health and Environment	12
NWI-BB087	Population and Evolutionary Biology	6
NWI-BB088	Biological Invasions	6
NWI-BB089	Quantitative Bioimaging in Health and Disease	6
NWI-BB092	Neural Basis of Cognition and Perception	6
NWI-BB094	Neurons and Synapses	6
NWI-BB095	Introduction to R Programming in Biology	3
NWI-BB097	Infectious Diseases	6

NWI-MB021B	Geographic Information Systems	6
NWI-MB023C	Man and Nature: Present, Past and Future	6
NWI-MB024C	Human and Ecological Risk Assessment	6

## List BB2 Other electives

Course code	Course name	EC
MAN-BKV55	Duurzaam Ondernemen	6
MAN-BCU2029	Globalising Worlds	6
MED-MIN16	Translational Neuroscience	12
NWI-FC0042B	Debating Science: An Introduction in 'Science in Society'	3
NWI-FNWI012	Leren en Onderwijzen in de Bètawetenschappen (not in conjunction with FNWI015)	6
NWI-FNWI015	Elementen in Bètaonderwijs (not in conjunction with FNWI012)	3
NWI-GCSE001	Climate Change	3
NWI-GCSE002	Energy and Sustainability	3
NWI-MOL053	Pharmacochemistry	6
NWI-MOL054	Toxicology	6
NWI-MOL055	Molecular Basis of Diseases	6
NWI-MOL066	Structure, Function and Bioinformatics	6
NWI-MOL073	Comparative Genomics	3
NWI-MOL075	Bioinformatica A	3
NWI-MOL078	Nanobiotechnology	6
NWI-MOL091	Green Chemistry OR Sustainable Chemistry 2	3
NWI-MOL101	Essentials of Organic Chemistry	6
NWI-MOL104	Medical Biotechnology	6
NWI-MOL107	RNA Structure and Function	6
NWI-MOL113	Nanomaterials in Biomedicine	3
NWI-MOL152	Data: Bioinformatics OR Data: Structural Bioinformatics	3
NWI-MOL168	Biomolecular Architecture	6