

# Education and Examination Regulations

## Master's programme in Biomedical Sciences

FACULTY OF MEDICAL SCIENCES

Academic year 2021-2022



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## Paragraph 1. General provisions

### Article 1. Purpose of the regulations

1. In these education and examination regulations (hereinafter: regulations) the current procedures and rights and obligations have been laid down for teaching and examination of the degree programme in Biomedical Sciences, Croho<sup>1</sup> code 66990 (hereinafter: the programme). This programme was established by the Executive Board of Radboud University and is taught by the Faculty of Medical Sciences of Radboud University. The Faculty of Medical Sciences together with the academic hospital composes the Radboud university medical center (hereinafter: Radboudumc).

### Article 2. Scope of the regulations

The regulations apply to students who register for the degree programme described in Article 1 in the academic year 2020-2021. The provisions in section 2 of these regulations apply to registration for the 2021–2022 academic year.

### Article 2a Executive Board guidelines

1. With a view to the organisation and coordination of the provisions in these regulations, the Executive Board has established the following guidelines:
  - a. Guideline for regulations on academic distinctions.
  - b. Guideline for BSA regulations.
  - c. In addition to the abovementioned guidelines, there are various temporary guidelines established by the Executive Board for the 2021–2022 academic year due to measures implemented regarding the COVID-19 pandemic. These guidelines are available at <https://www.ru.nl/nieuws-agenda/nieuws/coronavirus-radboud-universiteit/coronarichtlijnen/>.
2. The provision in these Education and Examination Regulations apply in full regardless of the provision in the guidelines specified in paragraph 1.
3. The guidelines are available on the Radboud University website (<https://www.radboudnet.nl/onderwijs/werkwijze-regelingen/>).

### Article 3. Definitions

1. The terms in these regulations that are also used in the Higher Education and Research Act (Wet op het Hoger onderwijs en Wetenschappelijk onderzoek; hereinafter to be referred to as 'the Act') have the same meaning as these terms have in the Act.

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<sup>1</sup> Central Register of Higher Education Study Programmes

2. Notwithstanding the provisions in paragraph 1 of the present article; the following terms have the following meanings:
- a. Contact hour: a tuition period during which the lecture is physically present;
  - b. Days: unless specified otherwise the word 'days' in these regulations refers to calendar days;
  - c. Module test: an examination with respect to the knowledge, understanding and the skills of the student, as well as the assessment of the outcomes of that examination, which, in coherence with one or more other examinations referred to here, constitute the examination as referred to in article 7.10 paragraph 1 of the Act. Where these regulations refer to examination<sup>2</sup>, this term also includes module tests, unless explicitly stipulated otherwise;
  - d. Final paper: an assessment of the student's academic achievements in the particular field of the programme (master's thesis);
  - e. Resit: the re-examination of an examination as referred to in article 7.10 paragraph 1 of the Act. Where these regulations refer to examination, this term also includes resits, unless explicitly stipulated otherwise;
  - f. Pre-Master's: a programme as referred to in 7.30 of the Act to support students who do not meet the admission requirements.
  - g. Regulations on Fraud: the RU Regulations on Fraud. In order to provide the student with proper and clear information, the Regulations on Fraud have been attached to these regulations as appendix IV;
  - h. Regulations on RU examination spaces: the rules for RU examination spaces as determined by the dean through an individual decision. These regulations have been included as Appendix V;
  - i. Working day: Monday to Friday, with the exception of public holidays as specified in the CAO of Dutch Universities *and* the collective free days designated by the Executive Board;
  - j. Assessment regulations: description of the form and components of an examination (module tests), and of the manner in which the result is determined;
  - k. UMC-Raad: the faculty joint assembly of Radboudumc;
  - l. Specialisation coordinator: a Radboudumc professional responsible for the cohesiveness between the specialisation courses and for student coaching within a specialisation. The specialisation coordinators represent and evaluate the specialisation and foster cohesiveness, depth, and structure in the specialisation itself.
  - m. Osiris: the study information system in which students register for education and examinations and grades are recorded.

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<sup>2</sup> In this translation, the word 'bachelor or master examination' is used for the Dutch word 'examen' and the word 'examination' for the Dutch word 'tentamen'.

## Paragraph 2. Admission to the programme

### Article 4. Admission requirements and procedures

1. To be admitted to the programme, the prospective student must meet the registration requirements under and pursuant to the Act and/or the requirements set by the university board with respect to the previous qualifications, admission and language and with respect to the admission procedures that apply for registration under and pursuant to the Act and/or by the executive board, in a separate decision.

These requirements and procedures have been attached to these regulations as Appendix I for reference.

### Article 4a. Pre-Master's

1. The option to participate in a Pre-Master's programme is provided to facilitate the transfer of a student with a related Bachelor's degree which does not meet the requirements for admission to the chosen degree programme. The Pre-Master's requirements referred to are attached to these regulations as Appendix I, Article I.2 for reference.
2. The regulations relating to this Pre-Master's programme were established by the dean on behalf of the Executive Board through a separate decision.

### Article 5. Admission decision

1. Decisions on admission to the programme are made by the dean on behalf of the executive board.
2. Without prejudice to the provisions in paragraph 1, decisions on admission to the programme are made by the selection committee consisting of specialisation coordinators, on behalf of the dean.

## Paragraph 3. Structure and form of the programme

### Article 6. Exit qualifications of the programme

#### General learning objectives

The MSc:

1. combines broad fundamental knowledge on the mechanisms underlying health and disease processes in the full width of the biomedical sciences with specialistic knowledge on a specific field of expertise within the biomedical sciences<sup>1</sup> e.g. molecular life sciences, clinical neurosciences or population research;
2. gains in-depth, expert understanding of a (new or unfamiliar) biomedical topic on the basis of a literature thesis and describes the state of the art concerning a disease, mechanism or methodology;
3. explores the context of health (care) problems and translates fundamental knowledge into biomedical research that aims towards prevention, therapy or diagnostics of disease;
4. conducts biomedical research independently, keeping up with international standards
5. establishes him- or herself as a member of a professional network of scientists; including
  - a. the competence to participate in scientific discussions and present his/her work in the English language to an international scientific audience
  - b. the capacity to write a scientific article at the level of international peer-reviewed journals
6. integrates the societal and ethical impact of scientific research in relevant situations in his/her professional career

<sup>1</sup> The BMS Master's has eight specialisations to choose from, including a free specialisation. Each specialisation contains a number of courses that reflect its central topics and methodology. Students also have the opportunity to participate in a wider selection of (elective) courses.

The following specialisations are offered:

- **Immunology and host defence**

Students learn to understand the immune system and its interactions with pathogens or cancer cells, and develop therapies for immunological diseases

- **Clinical human movement sciences**

Students explore different aspects of movement sciences with a clinical perspective, ranging from orthopaedic biomechanics to neural control and movement disorders

- **Epidemiology**

Students study the distribution and determinants of health and disease conditions in human populations

- **Health Technology Assessment**

Students learn to apply effectiveness research, create decision models for healthcare innovations and learn to measure health outcomes

- **Drug Safety and Toxicology**



Students study the effect of toxic substances and adverse drug effects from molecule to man, to improve patient safety

- **Molecular Medicine**

Students learn to translate fundamental knowledge on the molecular aspects of biomedical sciences into diagnostic, therapeutic and personalized treatment strategies

- **Medical Neuroscience**

Students learn to conduct research from basic to clinical and system-level neuroscience to provide better treatment options for brain-based disorders

- **Free specialisation**

Students have the option to assemble an individual programme and design their own specialisation

These specialisations are closely linked to the three research institutes of Radboudumc:

- Radboud Institute for Health Sciences (RIHS)
- Radboud institute for Molecular Life Sciences (RIMLS)
- Donders Centre for Medical Neuroscience (DCMN)

### **Research profile**

The MSc

1. has state-of-the-art knowledge on advanced experimental and methodological approaches in the field of specialisation, providing the basis for developing and executing innovative research ideas;
2. achieves a profound professional level of the scientific competences formulated under 'general learning objectives' by conducting at least two research projects (internships). Has learned how to use past research experiences to further improve his/her own research skills.
3. Is proficient to move into an international PhD programme or to participate in research projects at healthcare institutions or e.g. pharmaceutical companies.

### **Communication profile**

The MSc

1. understands mechanisms and processes that are involved in the perception and interpretation of scientific information by lay persons.
2. is able to design a communicative intervention on the basis of a thorough understanding of the target group.
3. is able to evaluate the effectiveness of communicative interventions.

### **Consultancy profile**

The MSc

1. is able to effectively work with stakeholders in an advisory project to solve a policy problem, the solution of which requires biomedical expertise.

2. acquires the communicative skills to effectively manage human interaction in the context of policy making, including possible differences in stakeholder views, and associated resistance.
3. is able to write an advisory report that matches client needs and expectations.

#### Article 7. **Study load of the programme**

The programme has a study load amounting to 120 ECs. The programme's study load has been set under or pursuant to the Act and/or by the executive board, in a separate decision.

#### Article 8. **Form of the programme**

The programme is taught full-time. The programme's form is determined by the executive board, in a separate decision.

#### Article 9. **Language of the programme**

The programme is taught in the English language, which is the programme's language of instruction. The programme's language of instruction is determined by the executive board, in a separate decision.

#### Article 10. **Examination programme**

The programme has a master examination programme which is aimed at realising the exit qualifications described in article 6. This examination programme constitutes a coherent complex of units of study, as described in more detail in appendix II. The Board of Examiners confirms the final programme of each individual student.

#### Article 11. **Incorporating units of study (optional courses / electives)**

1. With due consideration for the master examination programme described in appendix II, the programme allows for the incorporation of optional courses and/or electives from other degree programmes. Academic courses outside the field of the biomedical sciences can be incorporated into an individual programme to a maximum amount of 12 EC. The remaining part of an individual programme can be filled with additional internships or theoretical courses within the field of the biomedical sciences.

Theoretical courses within the field of the biomedical sciences can be chosen from:

- a. courses offered by degree programmes of the Radboudumc
  - b. courses from other academic degree programmes
  - c. individual courses (i.e. courses customized for one or more students)
2. The Board of Examiners incorporates optional units of study from other degree programmes upon the student's request.
3. For the incorporation of the optional units of study the following conditions apply:

- a. Beforehand a request for incorporation of units of study has to be submitted for approval by the Board of Examiners. The Board of Examiners checks whether the curriculum as laid down in the study plan fits within the domain of the programme and will review the plan, considering the programme's objectives, in terms of level and coherence.
  - b. The student chooses electives from academic programmes offered by the Radboudumc, the Radboud University or other recognized institutions for academic education in the Netherlands or abroad.
  - c. A maximum of 12 EC may be spent on academic courses outside the field of biomedical sciences.
  - d. A maximum of 12 EC may be spent on courses of academic Bachelor degree programmes. (it is not allowed to re-use courses that are already included in a students' bachelor examination).
  - e. Electives have a minimum study load of 2 EC.
  - f. Units of study which have been approved by the Board of Examiners are included as individual part in the examination programme of the student involved, with the obligation to conclude them with a sufficient result. No rights with respect to enrolment can be derived from the approval of the Board of Examiners for inclusion of additional tests in the programme. Students should therefore determine prior to application whether they will suffer any adverse consequences after approval.
4. Incorporation of a unit of study is only permitted before the relevant unit of study starts. Elective courses can only be attended after approval by the Board of Examiners.
  5. In the event the study load units and the study result units of the units of study to be incorporated differ from the provisions laid down in these regulations, conversion will take place. The board of examiners will decide on the conversion, with due observance of the memo on conversion: 'Conversion of study load and study results' (Conversie van studiebelasting en studieresultaten).
  6. Incorporation of units of study from other degree programmes as optional courses takes place in accordance with the relevant rules with respect to procedures and rights and obligations as referred to in article 7.13 paragraph 2 of the Act, in so far as these procedures relate to that unit of study.

#### Article 12. **Adding units of study (extracurricular)**

1. The total number of units of study added to the examination programme may not be more than 30 ECs.
2. The Board of Examiners adds the extracurricular units of study from the master's programme in Biomedical Sciences or from other degree programmes upon the student's request.
3. For the addition of optional units of study the following conditions apply:

- a. Beforehand a request for adding units of study has to be submitted for approval by the Board of Examiners. The Board of Examiners checks whether the curriculum as laid down in the study plan fits within the domain of the programme and will review the plan, considering the programme's objectives, in terms of level and coherence.
  - b. The student chooses electives from academic programmes offered by the Radboudumc, the Radboud University or other recognized institutions for academic education in the Netherlands or abroad.
  - c. A maximum of 12 EC from the total programme may be spent on academic courses outside the field of biomedical sciences.
  - d. A maximum of 12 EC from the total programme may be spent on courses from academic Bachelor degree programmes. (it is not allowed to re-use courses that are already included in a students' bachelor examination)
  - e. Electives have a minimum study load of 2 EC.
  - f. Units of study which have been approved by the Board of Examiners are included as individual part in the examination programme of the student involved, with the obligation to conclude them with a sufficient result. No rights with respect to enrolment can be derived from the approval of the Board of Examiners for inclusion of additional tests in the programme. Students should therefore determine prior to application whether they will suffer any adverse consequences after approval.
4. For adding units of study, the provisions in article 11 paragraphs 4 up to and including 6 apply accordingly.

#### Article 13. **Exemptions from units of study**

1. The total number of exemptions never exceeds 18 ECs.
2. Upon a student's request, the Board of Examiners may grant the student exemption from a specific unit of study and the corresponding examination if this student:
  - a. has completed a relevant unit of study as part of a university or higher professional education programme which is similar both as regards content and as regards level;
  - b. can prove previous (academic) achievements within the field of the biomedical sciences that justify exemption.
3. The Board of Examiners does not grant any exemptions for module tests.
4. In the assessment referred to in paragraph 3 of the present article, the Board of Examiners checks the current relevance of the knowledge, understanding or skills that were tested in the examination.
5. No exemption as referred to in paragraph 1 of the present article is granted for the final paper (master's thesis).
6. The Board of Examiners does not grant exemptions on the basis of results obtained in the period in which the student was barred from sitting examinations because of examination fraud which was established by the Board of Examiners as referred to in the RU Regulations on Fraud.

#### Article 14. **Replacing units of study**

Replacing units of study, other than the electives and optional courses described in Article 11 and the courses for the consultancy and communication profile, is not permitted (see Article II.2B 'compulsory courses'). Units of study which have been approved by the Board of Examiners are included as individual part in the examination programme of the student involved; these units of study cannot be replaced unless the Board of Examiners approves a plan for replacement of one or more units. An adaptation to a previously approved study plan requires a valid motivation.

#### Paragraph 4. **Structure and form of the units of study**

#### Article 15. **Registration and application for examinations and resits**

1. The student registers for units of study of the programme he has enrolled in, in the manner and before the deadlines as described in appendix III.
2. The student who has registered for tuition is also registered for the corresponding following examination (including all module tests) in the relevant study year. If a student should not want to sit the examination, the student will have to deregister, via Osiris, at the latest 10 working days before the examination date.

3. The student has to register for a resit of an examination. The student has to register, via Osiris, at the latest 10 working days before the examination date, unless a different method or deadline has been set in appendix III.
4. If the student fails to deregister in due time, non-appearance is considered as a used opportunity to sit the examination, unless the board of examiners should decide otherwise in special circumstances.

**Article 16. Admission to tuition and examinations**

1. The student is permitted to attend all units of study in the programme and to sit the relevant examinations.
2. Contrary to the provisions in paragraph 1 of the present article, in appendix III limitations can be set to the number of examinations of a unit of study, a student is allowed to sit during the programme. There are no maximum numbers of examinations applicable for the units of study in the master's programme in Biomedical Sciences.
3. There are no entry requirements for components of the master's programme. The MSc student is allowed to take courses and sit relevant examinations. In such cases the student is obligated to inquire into the level of knowledge required by the lecturer prior to the start of the course. In case of any hiatus in prior knowledge it is the student's responsibility to achieve the desired entry level through self-study.
4. An examination that has been passed may be resat, unless determined otherwise in appendix III. A module test that has been passed may not be resat before the examination result has become irrevocable, unless determined otherwise in appendix III.
5. In special circumstances, the Board of Examiners may exempt the student from the entry requirements, with or without imposing alternative requirements.
6. Admission to tuition and examinations is not made dependent on other financial contributions than tuition fees, unless costs should be involved that are connected with the course in question. If any costs referred to in this paragraph should be involved, these costs have been listed in appendix III.

**Article 17. Units of study organised per academic year**

Each unit of study is offered once per academic year, unless stated otherwise in appendix II.

**Article 18. Number of opportunities to sit an examination per unit of study; resits**

1. Per academic year, the student can sit one examination per unit of study and resit this examination once, unless stated otherwise in appendix III.
2. If the examination referred to in paragraph 1 consists of module tests, the resit will also consist of module tests, unless stated otherwise in appendix III.

**Article 19. Timetable for tuition and examinations**

Appendix II at least arranges in which semester and in which period the opportunity is provided to attend courses and to sit examinations.

**Article 20. Language of tuition and examinations**

Tuition and examinations of the units of study are provided in the language of instruction of the programme. If the courses and/or the examinations are provided in any other language than the language of instruction, this is referred to in the overview in appendix III.

**Article 21. Learning objectives**

Each unit of study is aimed at realising the learning objectives described in these regulations. The learning objectives per unit of study have been laid down in further detail in the prospectus.

**Article 22. Format of tuition**

The format of the tuition has been laid down per unit of study in the prospectus.

**Article 23. Number of contact hours**

The number of contact hours per unit of study has been laid down in the prospectus.

**Article 24. Format of examination**

1. The examination format has been laid down per unit of study in Osiris. The programme has the following examination formats:
  - a. Written examinations, whereby 'written' is meant to include writing in digital form;
  - b. Oral examinations;
  - c. assignments;
  - d. portfolio;
  - e. practicals;
  - f. oral presentations and discussions;
  - g. projects;
  - h. internship report
2. In special cases, the board of examiners may decide that the format of the relevant examination described in Osiris will be departed from.
3. Written examinations are administered in the rooms designated by the programme for this purpose.
4. In case of an oral examination, the board of examiners will assign a second examiner on request of the student or the first examiner. An oral examination is an individual test in which,

in principle, not more than one person is tested at the same time. Oral examinations are public, unless the student has objected.

5. For other than written or oral examinations further rules are set in the assessment regulations as referred to in article 26.7.
6. The Board of Examiners may allow students with an impairment, by way of special examination facilities, to sit examinations in a format adapted to their individual impairment. Prior to taking a decision in this matter, the board of examiners may seek expert advice. In so far as facilities in the context of a 'digital test' are concerned, the board of examiners, when formatting the facility, may seek advice from the faculty's digital testing coordinator.

## Paragraph 5. Testing and administering examinations

### Article 25. Rules when examinations are administered

For the proper course of events during examinations that are administered in RU examination rooms, the dean has adopted House Rules in a separate decision. These rules have been attached to these regulations as appendix V for reference.

### Article 26. Establishing and registering examination results

1. The examiner establishes the result of an exam in writing and registers the result in Osiris.
2. The result of an examination is expressed in rounded full or half points on a scale of 1-10. If the result of an examination is established differently, this is described in more detail in the overview in appendix III.
3. Contrary to the provisions of paragraph 2 of the present article, the result of an examination is not set at 5.5 points. An arithmetical score lower than 5.5(0) is rounded to 5 and a score equal to or higher than 5.5(0) is rounded to 6.
4. If the result of an examination is more than or equal to 6.0 points or more, the examination is considered to have been successfully completed. If the result of the examination equals 5.0 points or less, the examination is considered not to have been successfully completed.
5. The provisions in paragraphs 2, 3 and 4 do not apply for module tests.
6. If an examination that has already been sat is resat, the more recently obtained result always determines the final grade.
7. For each examination, the accompanying testing formats, assessment scales, and weighting factors are specified in Osiris. The testing information in Osiris requires approval of the board of examiners and will be published in Osiris before the start of the unit of study. The testing information does not deviate from that which has been determined in appendix III.



#### Article 26a. **Alphanumerical results**

Without prejudice to the provisions in Article 27, the following alphanumerical results will be recorded in Osiris in the following circumstances:

1. 'ND' (*'niet deelgenomen'*) (did not participate) if the student was registered for a unit of study or an examination but did not participate;
2. 'VR' (*'vrijstelling'*) (exemption) if, in accordance with the provisions of these regulations, the Board of Examiners has granted an exemption from an educational unit in the examination programme;
3. 'FR' (*'fraude'*) (fraud) if fraud of any kind has been determined by the Board of Examiners when taking an examination and the Board of Examiners has declared the result of the examination in question invalid, in accordance with the provisions of the Regulation on Fraud attached to these regulations;
4. 'EFR' (*'ernstige fraude'*), (serious fraud), if serious fraud has been determined by the Board of Examiners when taking an examination and the Board of Examiners has declared the result of the examination in question invalid, in accordance with the provisions of the Regulation on Fraud attached to these regulations.

#### Article 27. **Publication of examination results**

1. Immediately after the result of an examination has been established, the examiner provides the student administration office with the data required for the publication of this result.
2. The examiner publishes the result of a written examination within 15 working days after the date the examination was administered *and* no later than 10 working days before the date of the resit examination. If an examination is taken in multiple sessions, the result will be published within 15 working days of the last session. Immediately following an oral examination, but no later than 5 working days after it was administered, the examiner informs the student about the result and provides the student with a written statement of it. With respect to examinations that are administered in any other way, in appendix III is determined within which period of time the student is informed of the result.
3. In special circumstances and upon request, the board of examiners may extend or reduce the periods referred to in paragraph 2 of the present article.
4. When the result is published, the student is informed about the possibility to appeal at the examinations appeals board within the applicable appeal period. The provision here does not apply to module tests.

#### Article 28. **Perusal and inspection rights**

1. For a period of at least 15 working days following the publication of the result of an examination, the student is entitled, upon his request, to peruse and inspect the work assessed.

2. For the period referred to in paragraph 1 of the present article, any interested party is entitled to inspect, during the perusal, both the questions asked and the assignments set for the relevant written examination and the standards applied for the assessment.
3. Notwithstanding paragraphs 1 and 2 of the present article, the examiner may decide that perusal will take place for all students at the same time, on a date and at a time and place set in advance. If a student should not be able to attend this perusal because of circumstances demonstrably beyond his control, a separate perusal can be arranged, upon the student's request, preferably within the period of time referred to in paragraph 1 of the present article.
4. In any event, the opportunity for perusal is offered no later than 5 working days prior to the first following opportunity to sit the examination.

**Article 29. Validity term of examinations**

7. The validity term of any examinations that have been passed is indefinite;
8. The validity term of module tests ends directly after ending of the academic year following the academic year in which the module test was taken, unless stated otherwise in the Appendix III.

**Article 30. Master's examination**

1. The programme is finalised by the master's examination.
2. The board of examiners establishes the result of the master's examination in writing as soon as the student has passed all the examinations corresponding to the units of study in the examination programme pertaining to the degree programme in question, and the student has requested the Master's examination. The Board of Examiners determines which examination was last taken by the student.
3. The Board of Examiners establishes the exam date simultaneously with the exam result. The examination date is the day on which the Board of Examiners establishes the result, as specified in paragraph 2.
4. Prior to establishing the result of the examination, the board of examiners itself may conduct an inquiry into the student's knowledge with respect to one or more units of study or aspects of the programme.

**Article 31. Degree and distinction**

1. The student who has passed the programme's examination is awarded the degree of Master of Science (MSc).
2. The board of examiners may award a distinction to the student who has successfully completed the programme. The rules that apply for awarding distinctions have been laid down in a guideline. The guideline for awarding distinctions for the Master's BMS are attached in Appendix VI.

## Paragraph 6. Study progress, counselling and recommendations

### Article 32. Study progress and student counselling

1. The dean is responsible for the registration of the study results in such a way that the board of examiners can provide every student, upon his request and within a reasonable period of time, with an updated overview of the results obtained.
2. The dean is responsible for providing adequate student counselling.

### Article 33. BSA-arrangements: Not applicable

## Paragraph 7. Evaluation of tuition

### Article 34. Tuition evaluation method

With due observance of the quality assurance system of the university, as laid down in the Handbook Quality Assurance System Degree Programmes Radboud University (*Handboek Kwaliteitszorg Onderwijs Radboud Universiteit*), the dean ensures that the tuition in the degree programme is systematically evaluated.

## Paragraph 8. Judicium abeundi

### Article 35. Student behaviour in relation to future professional practice

In order to provide the student with proper and clear information, the student is informed about legal provisions in the Act (article 7.42a) that give the executive board the authority, in special cases, provided the described due diligence requirements have been met, to terminate or refuse a student's enrolment, if the student's behaviour has demonstrated an incapacity to exercise one or more professions for which their education trains them, or for the practical preparation for professional practice.

## Paragraph 9. Transitional provisions

1. For students who enrolled in the master programme in 2016-2017 or earlier, the next transitional provisions apply:
  - a. Students who have already completed components of the master programme in accordance with the exam regulations of 2016-2017 or earlier, will graduate under the requirements of the EER which was operative in the year they started the master programme (conditionally). In case of any ambiguity the student is to contact the Board of Examiners. The Board of Examiners' decision is final.

- b. The scope of internships is determined by the EER under which the student will graduate. Students may either graduate under the EER of 2016-2017 or that of 2017-2018/20-18-2019. Combinations which are in between both EERs in terms of internship scope are not allowed.
  - c. As of academic year 2017-2018 a literature thesis (scope of 6 ECs) is part of the master programme (compulsory). Students working under earlier Education and Exam Regulations may incorporate said literature thesis as an elective (optional).
  - d. As of academic year 2017-2018 the course programme as laid down in the EER of 2016-2017 and prior is no longer offered. Students who did not take or successfully complete one or more components of their compulsory profile or major programme (see EER operative in the year they started the master programme), are obliged to take (an) alternative component(s), to replace any missing component(s). An overview of the courses from previous curriculums and replacement courses from the new course programme is indicated in Appendix 4, Table 2 of the EER master BMS 2018-2019.
2. The limitation regarding the adding of extracurricular units of study, as mentioned in article 12, paragraph 1 does not apply for students who started before academic year 2019-2020 with the master programme.

## Paragraph 10. Final provisions

### Article 36. **Safety net scheme and hardship clause**

1. In cases not covered by these regulations, or insufficiently covered by these regulations, the dean decides.
2. In cases of conflict between these regulations and the relevant legal provisions, the WHW provisions will take precedence.

### Article 37. **Adoption, employee participation and amendments**

1. The present regulations are laid down or amended by the dean, after the programme committee has delivered its opinion on them and after the UMC-Raad has consented to them.
2. Amendments to these regulations will not take effect in the current academic year, unless the interests of the student are not disproportionately compromised by it.
3. If, as a result of the measures implemented for the COVID-19 pandemic, these regulations cannot be followed in some way, an addendum will be added to these regulations. The participational structure will be involved in establishing this addendum in accordance with the standard, statutory provisions regarding the adoption of the EER in whole or in part.

Article 38. **Implementation**

1. These regulations enter into effect on September 1, 2021.
2. The education and assessment regulations laid down previously cease to have effect as from that date.

Article 39. **Publication**

1. The dean is responsible for the appropriate publication of these regulations and of any amendments of them.
2. Any interested party is entitled to collect a copy of these regulations at the faculty office.

Article 40. **Evaluation**

The dean ensures that these regulations are evaluated on a regular basis.

These regulations were adopted by the dean on 15 June 2021.

## Appendix I Admission requirements and procedures

### Article I.1: Admission requirements

Admission to the Master programme of Biomedical Sciences requires the following prior education:

1. A Bachelor's degree based on successfully passing the final examination of the Bachelor of Biomedical Sciences at Radboud University Nijmegen.
2. A Bachelor's degree based on successfully passing the final examination of other related Bachelor programmes in the Netherlands which have been appointed as such by the Dean, on the understanding that the Board of Examiners may determine additional requirements for the Master programme.
3. A certificate of admission to the Master, issued by the Executive Board of Radboud University, to candidates holding a secondary school diploma in Science and Engineering or Science and Health supplemented by the subject Physics and moreover a graduate degree in the programmes of Physical Therapy, Higher Laboratory Education in Chemistry and Biotechnology, or Higher Laboratory Education in Medicine after they have successfully met the programme of additional prior education requirements as laid down in appendix 1 to these regulations. The result of this programme is sufficient if a mark of 6 or higher is achieved in all components.
4. A Bachelor's degree based on successfully passing the final examination of a related Bachelor programme abroad and an additional successfully completed English interview with one or two members of the admissions board of the Examination Board Biomedical Sciences. Admission depends on:
  - a) the degree of biomedical knowledge and experience in the field displayed in the interview;
  - b) an assessment of the applicant's prior education by the Examination Board of the Master of Biomedical Sciences.

### Article I.2: Programme of additional prior education requirements (Pre-master's)

In the event that the requirements set above are not met, but the board of examiners is of the opinion that the deficiencies can be remedied within a reasonable period of time, the scope and content of a premaster programme will be determined. The result of the pre-master programme is sufficient for admission to the Biomedical Sciences Master's degree if for all components a grade of 6 or higher has been achieved. For a number of specific pre-programmes the pre-master programme has been laid down.

### Pre-master-programme Biomedical Sciences for students of Medicine

Component	EC	Code
Premaster minor: Biomedical Research Methods	12	MED-MIN17
Minor	12	MED-MINxx
Elective ninth quarter	3	MED-B3KO
Thinking critically about science	3	MED-B3WI
Bachelor research internship	27	MED-B3BOS
Bachelor writing	1	MED-B3WR
Professionalism BMW semester 5	1	MED-B3PFS5B
Professionalism BMW semester 6	1	MED-B3PFS6B
<i>Total:</i>	<i>60 EC</i>	

### Pre-master-programme Biomedical Sciences for graduates of HLE, Physical Therapy, and MBRT

Component	EC	Code
Premaster Minor: Biomedical Research Methods	12	MED-MIN17
Minor	12	MED-MINxx
Research proposal	7	MED-B2CSIP
Research: Biomedical evidence in practice (seventh quarter)	9	MED-B2RK7
Research: Personalized healthcare research (eight quarter)	9	MED-B2RK8
Professionalism BMW semester 5	1	MED-B3PFS5B
Professionalism BMW semester 6	1	MED-B3PFS6B
<i>Total:</i>	<i>51 EC</i>	

### HAN-RU-minor Bewegingswetenschappen (ingedaald premaster-programma voor geselecteerde studenten)

Component	EC	Code
Premaster Minor: Biomedical Research Methods	12	MED-MIN17
Minor Moving Questions: An introduction to clinical human movement sciences	12	MED-MIN05
Research proposal	7	MED-B2CSIP
Research: Biomedical evidence in practice (seventh quarter)	9	MED-B2RK7
Research internship premaster BMW at HAN (12 weeks)	17	MED-B3OSPBMW
Professionalism BMW semester 5	1	MED-B3PFS5B
Professionalism BMW semester 6	1	MED-B3PFS6B
<i>Total:</i>	<i>59 EC</i>	

### Article I.3: Language requirements

1. In addition to the admission requirements referred to above, adequate command is required of the language in which the courses are taught, i.e. English.
2. Sufficient English proficiency is required to participate in both the English-taught courses and English examinations. The language requirement referred to in paragraph 1 of the present article is in any case met, if the student:
  - a. holds a diploma of pre-university education; or
  - b. holds a diploma of secondary education, obtained at an English-language institution for secondary education in or outside the Netherlands; or
  - c. holds a diploma in higher vocational training; or
  - d. has passed one of the following tests:
    - TOEFL with a score of 90 or higher (internet-based version) with all sub-scores equal or higher than 22.
    - IELTS with a score of 6.5 or higher with at least 6.0 for all sub-items and at least 6.5 for 'writing'.;
    - Cambridge examinations: a CAE or CPE exam with a C-grade or higher.

### Article I.4: Flexible admission into the Master programme

1. Upon request and insofar as the available capacity allows, the Board of Examiners may decide to already admit a student enrolled in the Bachelor's programme Biomedical Sciences to programme components and corresponding examinations of the Master's programme Biomedical Sciences for the duration of the academic year before the bachelor programme has been successfully completed.
2. A request is eligible if:
  - a. The first year of the Bachelor's programme has been completed successfully;
  - b. A sufficient mark has been obtained for the bachelor research;
  - c. At least 168 ECs of the total bachelor's programme have been earned, in which ECs received for exemptions are to be taken into account as well.
3. In exceptional cases the Board of Examiners may deviate from the conditions for flexible admission as stated in paragraph 2c in favour of the student.
4. Students who are admitted to examinations of the master's programme under this article are not entitled to sitting the final examination of the master's programme or starting the second internship, as long as the bachelor's degree has not been obtained and the student has not been enrolled in the master's programme.



5. Students who were unable to obtain their Bachelor's or Pre-Master's certificate in 2021 before 1 September 2021 as a result of the coronavirus pandemic can make use of a special transitional scheme. These students are given the opportunity to obtain their Bachelor's or Pre-Master's certificate before 1 September 2022. At the same time they are conditionally admitted to the Master's programme if:
- a. Bachelor's or Pre-Master's courses to be completed do not exceed 12 EC. In exceptional circumstances, the board of examiners may deviate from this guideline and decide in favour of the student.
  - b. Only a single Bachelor's or Pre-Master's component of no more than 30 EC is missing (such as an internship) provided that the student has already started this component.
  - c. The language requirement as stated in this EER (Art. I.3) has been met.

Students who do not obtain their Bachelor's or Pre-Master's certificate before 1 September 2021 will not be permitted to continue their Master's in Biomedical Science from that point.

## Appendix II Examination programme

### Article II.1.: Composition of the programme

1. The student chooses one of the following profiles:
  - a. the research profile
  - b. the communication profile
  - c. the consultancy profile.
2. The master's programme in Biomedical Sciences (BMS) comprises multiple programme components, whose minimum required scope is specified in the tables below.

**Table:** Compulsory exam components for BMS and corresponding minimal study load:

Compulsory exam component	Number	Scope in EC	Explanation
Profile specific modules <ul style="list-style-type: none"><li>• Research</li><li>• Communication</li><li>• Consultancy</li></ul>	2 of 3 4 4	6 12 12	Art.II.1 lid 3 en Art.II.2B
Other modules BMS	6	≥18	Art.II.1 lid 3
Literature thesis	1	6	Art.II.1 lid 4
Scientific integrity <ul style="list-style-type: none"><li>• Research integrity rounds</li><li>• Thinking critically about science (m.u.v. BSc BMW van de RU)</li></ul>	1 of 2	0 3	Art.II.1 lid 5 en Art.II.2B
Coaching	1	0	Art.II.1 lid 6
Research internship	1	≥30	Art.II.1 lid 7
Profile internship	1	≥30	Art.II.1 lid 7

3. A list of BMS elective modules and (profile-specific) compulsory modules is included in Appendix II, Art. 2.
4. A literature thesis with a scope of 6 ECs is a compulsory component of the master programme. The requirements for the literature thesis can be found on the Radboudumc website.
5. Scientific integrity is an obligatory component of the BMS Master's programme. Students have to participate in the Research integrity rounds (at least three meetings). Students admitted to the BMS Master's based on the completion of the *Biomedische Wetenschappen* Pre-Master's and those admitted based on the completion of a programme at a foreign university must take the MED-BMS01 course. Students admitted to the BMS Master's based on prior education at a Dutch university can substitute another course for MED-BMS01.
6. Participation in the compulsory parts of the coaching is a mandatory part of the Master's programme for students who started their Master's in the 2020-2021 academic year or later. Every student will be assigned to a specialisation coordinator who will support the student during their Master's as a coach. Please refer to the assessment regulations for more details.

7. Internships have a study load of 24, 30, 36, 42, 48 of 60 EC. The table below includes the codes for the internship courses and the associated internship duration. The minimum and maximum scope depend on the type of internship, as shown in the table below. Internships can only be attended after approval by the Board of Examiners.

<b>Stagecursus</b>	<b>Omschrijving</b>	<b>weken</b>	<b>Sbu</b>
MED-BMS30GEN	Research Stage Algemeen (30 EC)	20	840
MED-BMS36GEN	Research Stage Algemeen (36 EC)	24	1008
MED-BMS42GEN	Research Stage Algemeen (42 EC)	28	1176
MED-BMS48GEN	Research Stage Algemeen (48 EC)	32	1344
MED-BMS30RES	Stage Researchprofiel (30 EC)	20	840
MED-BMS36RES	Stage Researchprofiel (36 EC)	24	1008
MED-BMS42RES	Stage Researchprofiel (42 EC)	28	1176
MED-BMS48RES	Stage Researchprofiel (48 EC)	32	1344
MED-BMS60RES	Stage Researchprofiel (60 EC)	40	1680
MED-BMS30COM	Stage Communicatieprofiel (30 EC)	20	840
MED-BMS36COM	Stage Communicatieprofiel (36 EC)	24	1008
MED-BMS42COM	Stage Communicatieprofiel (42 EC)	28	1176
MED-BMS48COM	Stage Communicatieprofiel (48 EC)	32	1344
MED-BMS30CONS	Stage Consultancy profiel (30 EC)	20	840
MED-BMS36CONS	Stage Consultancy profiel (36 EC)	24	1008
MED-BMS42CONS	Stage Consultancy profiel (42 EC)	28	1176
MED-BMS48CONS	Stage Consultancy profiel (48 EC)	32	1344
MED-BMS24ADD	Additionele Stage (24 EC)	16	672
MED-BMS30ADD	Additionele Stage (30 EC)	20	840

8. Electives (Art. 11 of the EER) can be fulfilled with additional internship or theoretical courses. Elective courses can only be attended after approval by the Board of Examiners.

Theoretical courses can be chosen from:

- Existing courses within Radboudumc
- courses from other university programmes
- individual modules (i.e. courses customised for one or more students)

9. The programme's Board of Examiners determines the definitive composition of any individual exam programme. Courses from the Biomedical Sciences Master's programme have been approved in advance as a component of the individual examination programme. For the other components (courses outside the BMS programme, internships, and literature thesis), the student drafts a plan for each component, discusses it with their specialisation coordinator, and submits it to the Board of Examiners for approval. The Board of Examiners checks whether the component as established in the plan fits within the domain of the programme and will review said plan, considering the programme's objectives, in terms of level and coherence.

10. In 'Rules and Regulations' the Board of Examiners provides further details on the manner in which plans for programme components must be submitted and approved.

## Article II.2.: Modules master Biomedical Sciences (BMS)

(belonging to the Education and Examination Regulations for the Biomedical Sciences Master's, amended as of 1 September 2021)

### A. BMS modules schedule

Period <sup>1)</sup>	Code	Title	EC
W36A	MED-BMS24	Medical Neuroscience: conceptual basics and anatomy	3.0
	MED-BMS53	Orthopaedic biomechanics in motion	3.0
	MED-BMS64	Molecular and cellular toxicology	3.0
	MED-BMS75	Advanced tools in molecular biology	3.0
	MED-BMS77	Design of applied medical research	3.0
	MED-BMS86	Introduction to Health Technology Assessment	3.0
	MED-BMS88	Advanced Immunology	3.0
W36B	MED-BMS32	Medical Neuroscience: Molecular and cellular neuroscience	3.0
	MED-BMS40	Nanomedicine	3.0
	MED-BMS54	Applied exercise physiology	3.0
	MED-BMS58	Cost-effectiveness analysis in health care	3.0
	MED-BMS67	Chemical mutagenesis and carcinogenesis	3.0
	MED-BMS74	Inflammatory diseases	3.0
	MED-BMS78	Modern methods of data collection	3.0
W36C	MED-BMS11	Basic course for Clinical Investigators (BROK) (LET OP: part 1)	1.5
W40A	MED-BMS25	Medical Neuroscience: functional imaging	3.0
	MED-BMS43	From target to therapy	3.0
	MED-BMS47	Biomarkers in population-based research	3.0
	MED-BMS55	From vascular function to vascular failure	3.0
	MED-BMS62	Advanced modelling in economic evaluation	3.0
	MED-BMS63	Biodynamic and toxicokinetic modelling	3.0
W40B	MED-BMS30	Medical Neuroscience: Animal models for psychiatric and neurological disorders	3.0
	MED-BMS41	Advanced models of human disease	3.0
	MED-BMS42	Targeting cellular processes to treat disease	3.0
	MED-BMS50	Neural control of movement	3.0
	MED-BMS61	Statistical modeling in observational research	3.0
	MED-BMS66	Reproductive Epidemiology and Toxicology	3.0
W40C	MED-BMS11	Basic course for Clinical Investigators (BROK) (LET OP: part 2)	1.5
	MED-BMS12	Research with ionizing radiation	1.5
W44A	MED-BMS19	Vision: From molecule to perception and treatment	3.0
	MED-BMS29	Neurobiology of stress	3.0
	MED-BMS39	Understanding proteins in 3D	3.0
	MED-BMS48	Clinical trials	3.0
	MED-BMS49	Movement science in rehabilitation	3.0
	MED-BMS65	Clinical toxicology	3.0
	MED-BMS72	Cancer development and immune defense	3.0
	MED-BMS81	Applied medical research and society	3.0
W44B	MED-BMS21	Neurodevelopmental disorders: bench to bedside	3.0
	MED-BMS33	Neural stem cells to model neurological disorders	3.0
	MED-BMS37	Cell death in life and disease	3.0
	MED-BMS52	Disorders of movement	3.0
	MED-BMS56	Health outcome measurement	3.0
	MED-BMS59	Prediction models and machine learning	3.0
	MED-BMS60	Human risk assessment	3.0
	MED-BMS76	Cell movements	3.0
	MED-BMS89	Moving Science - using film in science communication	3.0

W44C	MED-BMS11	Basic course for Clinical Investigators (BROK) (LET OP: part 1)	1.5
W48A	MED-BMS08	Qualitative research	3.0
	MED-BMS13	Data-analysis and modelling in MATLAB	3.0
	MED-BMS16	Causal inference in observational research	3.0
	MED-BMS28	Stress-related disorders	3.0
	MED-BMS85	Big data in biomedical sciences	3.0
	MED-BMS87	Infectious Disease Epidemiology	3.0
48B	MED-BMS05	Participatory approaches to innovation	3.0
	MED-BMS07	Science, communication and society	3.0
	MED-BMS14	Design and analysis of experiments	3.0
	MED-BMS31	OMICS data analysis of systems biology	3.0
	MED-BMS51	Sensorimotor control	3.0
48C	MED-BMS11	Basic course for Clinical Investigators (BROK) (LET OP: part 2)	1.5
W02A	MED-BMS02	Management skills for a consultant	3.0
	MED-BMS09	Science presentation and visualisation	3.0
	MED-BMS23	Biomedical imaging: seeing is understanding	3.0
	MED-BMS27	Higher order cognition and emotion	3.0
	MED-BMS38	Biomarkers: let's get personal	3.0
	MED-BMS57	Health care improvement science	3.0
W02B	MED-BMS03	Policy research	3.0
	MED-BMS06	Science popularisation	3.0
	MED-BMS10	Laboratory animal science	3.0
	MED-BMS17	Hands-on: genome data association analysis	3.0
	MED-BMS22	Vanishing boundaries between neurodevelopmental disorders	3.0
	MED-BMS82	Advanced matlab	3.0
W06A	MED-BMS01	Thinking Critically about Science	3.0
	MED-BMS26	Neuroscience of sleep	3.0
	MED-BMS69	Tumors of the digestive tract	3.0
	MED-BMS71	Women's cancers	3.0
	MED-BMS84	Longitudinal and multilevel data analysis	3.0
W06B	MED-BMS04	Policy making, health systems and public management in health care	3.0
	MED-BMS34	Reconstructive and regenerative medicine	3.0
	MED-BMS44	Mitochondrial disease drug development	3.0
	MED-BMS46	Healthy versus neurodegenerative brain aging	3.0
	MED-BMS68	Urological cancers	3.0

<sup>1</sup>“a” refers to Monday and Tuesday, “b” to Thursday and Friday and “c” to Wednesday. The first -four week- period (W36) starts September.

## B. Compulsory modules and elective modules

Compulsory modules for all MSc students:

Scientific integrity forms a compulsory part of the Master's programme.

Coaching is a compulsory part for students who started their Master's in the 2020-2021 academic year or later.

Period	Code	Title	ECTS
3 meetings per year	MED-BMSRIR <sup>1)</sup>	Research integrity rounds Radboudumc	0
All of the Master's	MED-BMSCOA <sup>2)</sup>	Coaching	0
W06A	MED-BMS01 <sup>3)</sup>	Thinking critically about science	3

1) All students will take part in at least three Radboud Integrity Rounds over the course of their 2-year Master's programme. Every year, three meetings will be organised. For the schedule, please refer to [www.radboudumc.nl/researchintegrityround](http://www.radboudumc.nl/researchintegrityround)

2) The compulsory components of the coaching programme (applicable to students who started their Master's in the 2020-2021 academic year or later) are further explained in the relevant assessment regulation. For more information, please refer to the prospectus:

<https://www.ru.nl/courseguides/fmw/master/biomedical-sciences-2021-2022/coaching/>

3) Students admitted to the BMS programme based on prior education at a Dutch university may substitute MED-BMS01 with a different BMS course.

#### Compulsory courses for the communication profile:

Period	Code	Title	ECTS
W01B	MED-BMS06	Science popularisation	3
W48B	MED-BMS07	Science, communication and society	3
W48A	MED-BMS08	Qualitative research	3
W01A	MED-BMS09	Science presentation and visualisation	3

The compulsory courses for the communication profile align with the profile-specific learning outcomes. Students may (in accordance with Article 14 'Replacing units of study') submit a motivated request to the Board of Examiners to take a comparable course from a different academic programme while retaining objectives. It is subject to the following conditions:

- a. Students who want to replace a compulsory profile course may submit a request to that effect. The Board of Examiners will check the request in terms of level and relation to the profile-specific learning objectives.
- b. The student chooses electives from academic programmes offered by Radboud University or other recognised institutions for academic education
- c. A maximum of 12 EC from the total programme may be spent on courses from academic Bachelor's degree programmes. (It is not allowed to re-use courses that are already included in a students' bachelor examination).
- d. Each elective has a minimum study load of 2 EC.
- e. No rights with respect to enrolment can be derived from the approval of the Board of Examiners for the inclusion of additional tests in the programme. Students should therefore

determine whether they will suffer any adverse consequences after approval prior to application.

Compulsory courses for the consultancy profile:

Period	Code	Title	ECTS
W01A	MED-BMS02 or MED-BMS57	Management skills for a consultant or Health care improvement science	3
W01B	MED-BMS03	Policy research	3
W05B	MED-BMS04	Policy making, health systems and public management in health care	3
W48B	MED-BMS05	Participatory approaches to innovation	3

The compulsory courses for the consultancy profile align with the profile-specific learning outcomes. Students may (in accordance with Article 14 'Replacing units of study') submit a motivated request to the board of examiners to take a comparable course from a different academic programme while retaining objectives.

It is subject to the following conditions:

- a. Students who want to substitute a compulsory profile course may submit a request to that effect. The Board of Examiners will check the request in terms of level and relation to the profile-specific learning objectives.
- b. The student chooses electives from academic programmes offered by the Radboud university medical center, Radboud University or other recognised institutions for academic education
- c. A maximum of 12 EC from the total programme may be spent on courses from academic Bachelor's degree programmes. (It is not allowed to re-use courses that are already included in a students' bachelor examination).
- d. Each elective has a minimum study load of 2 EC.
- e. No rights with respect to enrolment can be derived from the approval of the Board of Examiners for inclusion of additional tests in the programme. Students should therefore determine whether they will suffer any adverse consequences after approval prior to application.



Elective courses for the research profile:

Students in the research profile can choose at least 6 EC of courses from the table below.

<b>Period</b>	<b>Code</b>	<b>Title</b>	<b>ECTS</b>
W01A	MED-BMS09	Science presentation and visualisation	3
W01B	MED-BMS10	Laboratory animal science	3
W..C, 4x	MED-BMS11	BROK	1.5
W40C	MED-BMS12	Research with ionizing radiation	1.5
W48A	MED-BMS13	Data-analysis and modelling in MATLAB	3
W48B	MED-BMS14	Design and analysis of experiments	3
W44A	MED-BMS48	Clinical trials	3
W01B	MED-BMS82	Advanced matlab	3
W05A	MED-BMS84	Longitudinal and multilevel data analyses	3
W48A	MED-BMS85	Big data in biomedical sciences	3
W44B	MED-BMS89	Moving Science - using film in science communication	3

## Appendix III Course specific information

### Theoretical courses

Unit of study		Module BMS
	code	MED-BMSxx
	study load	3 EC
	objectives	Refer to <a href="#">Prospectus</a>
<b>Information education</b>		
	Entry requirements	n.a.
	Period	Appendix II
	Registration for tuition	Osiris, placement is based on preferences and capacity
	Tuition form	Refer to <a href="#">Prospectus</a>
	Language of instruction	English
<b>Information examination</b>		
	Entry requirements	n.a.
	Number of examination opportunities per academic year	2
	Registration examination	Automatically enrolled for the first examination opportunity
	Deregistration examination	n.a.
	Language	English
	Period of validity	Indefinitely
	Number of module tests	See Osiris
	Establishing results	The result of the examination is determined in accordance with Art. 26.
	Resit of passed examination	A module that has been passed successfully cannot be retaken.
	Resit of module tests	Resit opportunities for an insufficient result are laid down in the assessment regulations.
	Validity module tests	Indefinitely
<b>Set-up first examination opportunity</b>		
	Type of examination	See Osiris
	Period	Appendix II
	Term for publication of results	15 working days
<b>Set-up resit examination</b>		
	Type of examination	See Osiris
	Period	10 weeks after completion of the course
	Term for publication of results	15 working days

Unit of study		Radboud integrity rounds
	code	MED-BMSRIR
	study load	0 EC
	objectives	Refer to <a href="#">Prospectus</a>
<b>Information education</b>		
	Entry requirements	n.a.
	Period	Website
	Registration for tuition	Website
	Tuition form	Refer to <a href="#">Prospectus</a>
	Language of instruction	English
<b>Information examination</b>		
	Entry requirements	3 meetings during the master
	Number of examination opportunities per academic year	n.a.
	Registration examination	Automatically when meeting entry requirements
	Language examination	English
	Period of validity	Indefinitely
	Establishing results	The result of the examination is determined to be satisfied / not satisfied
<b>Set-up first examination opportunity</b>		
	Type of examination	Participation in meetings
	Period	Website
	Term for publication of results	15 working days
<b>Set-up resit examination</b>		
	Type of examination	Participation in meetings
	Period	n.a.

Unit of study		Research internship (general)
	code	MED-BMS...GEN
	study load	30-48 EC
	objectives	Refer to <a href="#">Prospectus</a>
<b>Information education</b>		
	Entry requirements	Stagevoorstel is goedgekeurd door Examencommissie
	Period	variable
	Registration for tuition	OSIRIS-zaak
	Tuition form	Individuele begeleiding op een onderzoeksafdeling. Zie ook Brightspace
	Language of instruction	English
<b>Information examination</b>		
	Entry requirements	Stagevoorstel is goedgekeurd door Examencommissie
	Number of examination opportunities per academic year	n.v.t.
	Registration examination	Automatisch bij inschrijving voor onderwijs
	Deregistration examination	n.v.t.
	Language	English
	Period of validity	Indefinitely
	Number of module tests	3, I) Professionaliteit en activiteiten tijdens stage II) Concept scientific article III) Presentation
	Establishing results	The result of the examination is determined in accordance with Art. 26. The method of assessing sub-tests I, II and III

		when determining the exam result is described in the internship manual.
	Resit of passed examination	A sufficiently completed internship cannot be retaken.
	Resit of module test	If a module test result is insufficient, the examiner determines the form of a resit opportunity.
	Validity module tests	Conform Art. 30.2
<b>Set-up first examination opportunity</b>		
	Type of examination	performance, report and presentation
	Period	Variable
	Term for publication of results	20 working days
<b>Set-up resit examination</b>		
	Type of examination	In consultation
	Period	n.a.
	Term for publication of results	20 working days

<b>Unit of study</b>		<b>Coaching</b>
	code	MED-BMSCOA
	study load	0 EC
	objectives	Refer to <a href="#">Prospectus</a>
<b>Information education</b>		
	Entry requirements	n/a
	Period	Throughout the Master's
	Registration for tuition	Refer to website
	Tuition form	Refer to prospectus
	Language of instruction	English
	Study cost	n/a
<b>Information examination</b>		
	Entry requirements	n/a
	Number of examination opportunities per academic year	n/a
	Registration examination	n/a
	Language	English
	Period of validity	Indefinitely
	Number of module tests	Refer to examination regulation (published in the Brightspace course of the Biomedical Sciences Master's)
	Establishing results	The result of the examination will be established as passed /not passed
	Resit of passed examination	n/a
	Resit of module test	n/a
	Validity module tests	n/a
<b>Set-up first examination opportunity</b>		
	Type of examination	Refer to examination regulation
	Period	During the Master's programme
	Term for publication of results	15 working days
<b>Set-up resit examination</b>		
	Type of examination	Refer to examination regulation
	Period	n/a.
	Term for publication of results	15 working days

<b>Internship Research Profile</b>		
	Code	MED-BMS...RES
	Study load	30 - 60 EC
	Objectives	Refer to <a href="#">Prospectus</a>
<b>Information education</b>		
	Entry requirements	The work plan for the research training period must be approved by the board of examiners as part of the individual study plan before the start of the research training period.
	Registration for tuition	The student submits the research training period workplan to the board of examiners 6 weeks before the start of the research training period.
	Tuition form	The student conducts research under supervision of a scientist and writes a report.
	Number of contact hours	The student conducts research 40 hours a week; estimated supervision time is at least 5 hours a week.
	Language of instruction	English
	Study costs	Not applicable
<b>Information examination</b>		
	Entry requirements examination	Not applicable
	Number of examination opportunities per study year	1
	Registration examination	BMS students are automatically enrolled.
	Deregistration examination	Not applicable
	Examination language	English
	Period of validity	Unlimited
	Determination examination grade	According to article 26; numerically graded. Specific rules apply to examiners and assessment forms, see Rules and regulations of the board of examiners and Guidelines internship. Detailed assessment regulations for research training periods are printed on the assessment form.
	Resit of passed examination	Not allowed
	Resit of module tests	If a student fails the research training period, the examiner in consultation with the Board of Examiners will determine the options for resit.
<b>Set-up first examination opportunity</b>		
	Period	variable
	Number of module tests	3
	Examination form	Professional attitude and activities, oral presentation and written internship report. See internship assessment forms and Guidelines internship for details.
	Term for publication of examination results	20 working days
	Validity term of module tests	As stated in article 30.2
<b>Set-up resit examination</b>		
	Period	If a student fails the research training period, the examiner in consultation with the board of examiners will determine the options and period for resit.
	Number of module tests	Equal to first examination opportunity
	Examination form	Equal to first examination opportunity
	Term for publication of examination results	20 working days
<b>Committee to be approached with special requests</b>		
	Board of Examiners	

<b>Profile Internship consultancy/communication</b>		
	Code	MED-BMS... COM / MED-BMS... CONS
	Study load	30-48 EC
	Learning objectives	See <a href="#">Prospectus</a>
<b>Information education</b>		
	Entry requirements	The work plan for the profile internship must be approved by the board of examiners as part of the individual study plan before the start of the internship.
	Registration for tuition	The student submits a workplan to the board of examiners at least 6 weeks before start of the internship.
	Tuition form	The student conducts research under supervision of a scientist and writes a report.
	Number of contact hours	The student conducts research 40 hours a week; estimated supervision time is at least 5 hours a week.
	Language of instruction	English
	Study costs	Not applicable
<b>Information examination</b>		
	Entry requirements examination	Not applicable
	Number of examination opportunities per study year	1
	Registration examination	BMS students are automatically enrolled.
	Deregistration examination	Not applicable
	Examination language	English
	Period of validity	Unlimited
	Determination examination grade	According to article 26; numerically graded. Specific rules apply to examiners and assessment forms, see Rules and regulations of the board of examiners and Guidelines internship on Brightspace. Detailed assessment regulations for internships are printed on the assessment form.
	Resit of passed examination	Not allowed
	Resit of module tests	If a student fails the internship period, the examiner in consultation with the board of examiners will determine the options for resit.
<b>Set-up first examination opportunity</b>		
	Period	variable
	Number of module tests	3
	Examination form	Professional attitude and activities, oral presentation and report
	Term for publication of examination results	20 working days
	Validity term of module tests	As stated in article 30.2
<b>Set-up resit examination</b>		
	Period	If a student fails the internship period, the examiner in consultation with the board of examiners will determine the options and period for resit.
	Number of module tests	Equal to first examination opportunity
	Examination form	Equal to first examination opportunity
	Term for publication of examination results	20 working days
<b>Committee to be approached with special requests</b>		
	Board of Examiners	

**Table III d. Literature thesis**

<b>Literature thesis</b>		
	Code	MED-BMSLIT
	Study load	6 EC
	Learning objectives	See <a href="#">Prospectus</a>

<b>Information education</b>		
	Entry requirements	The application for the Literature thesis must be approved by the board of examiners as part of the individual study plan before the start of the Literature thesis.
	Registration for tuition	The student submits the application form Literature thesis to the board of examiners, at least 6 weeks, before start of the literature thesis.
	Tuition form	The student answers a research question, performs a literature study and writes a review under structured supervision of a scientist. Specific guidelines for the Literature thesis (including a time limit of 4 weeks, restrictions on topic and supervisors) are published on Brightspace.
	Number of contact hours	The student conducts the literature study in 4 weeks (or an equivalent thereof); estimated supervision time is at least 1.5 hours a week.
	Language of instruction	English
	Study costs	Not applicable
<b>Information examination</b>		
	Entry requirements examination	Not applicable
	Number of examination opportunities per study year	2
	Registration examination	Via approval of the Literature thesis application form.
	Deregistration examination	Not applicable
	Examination language	English
	Period of validity	Unlimited
	Determination examination grade	According to article 26; numerically graded. Specific rules apply to examiners and assessment forms, see Rules and regulations of the board of examiners and guidelines Literature thesis on Brightspace. Detailed assessment regulations for Literature thesis are printed on the assessment form (available from Brightspace).
	Resit of passed examination	Not allowed
	Resit of module tests	Not applicable
<b>Set-up first examination opportunity</b>		
	Period	Flexible, 4-week time period
	Number of module tests	1
	Examination form	Written Literature thesis. See Literature thesis assessment form (approved by the board of examiners) and guidelines Literature thesis on Brightspace for details.
	Term for publication of examination results	15 working days
	Validity term of module tests	Not applicable
<b>Set-up resit examination</b>		
	Period	Flexible, 4 week time period
	Number of module tests	1
	Examination form	If a student fails the Literature thesis, the student has to write a complete new Literature thesis on a new topic.
	Term for publication of examination results	15 working days
<b>Committee to be approached with special requests</b>		
	Board of Examiners BMS	





## Appendix IV Regulations on fraud

### Paragraph 1. Introductory provisions

#### Article 1. Purpose and scope of these regulations

To prevent fraud during examinations and bachelor/master examinations, as referred to in article 7.12b WHW relating to the education and examination in the Master's programme in Biomedical Sciences of Radboud University (hereinafter: RU), the dean of the Medical faculty adopts the following regulations.

#### Article 2. Definitions

The terms that are used in these regulations – in so far as these terms are also used in the Higher Education and Research Act (Wet op het Hoger onderwijs en Wetenschappelijk onderzoek (hereinafter: the Act)) 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 Act and the EER.

### Paragraph 2. Definition fraud, procedure and sanctions

#### Article 3. Definition of fraud

1. At RU, fraud is understood to mean any act or omission by a student which, in its nature, is intended to have as an effect that proper assessment of the knowledge, understanding and skills of that student, or another student, is made fully or partially impossible.
2. Fraud is in any case understood to mean:
  - a) fraud when sitting written examinations, including
    - i. having materials available which are not permitted under the House Rules Examinations Rooms RU Regulations (*Regeling Huisregels Tentamenruimten RU*);
    - ii. copying or exchanging information;
    - iii. passing oneself off as someone else, or being represented by someone else during examinations or bachelor/master examinations;
  - b) fraud when producing these and other papers, including
    - i. plagiarism in the sense of using or copying someone else's texts, data or ideas without complete and correct source references, 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. fabricating (making up) and/or falsifying (distorting) research data;

- iii. submitting a thesis or any other paper that was written by someone else.
  - c) other fraud in the context of examinations or bachelor/master examinations, including
    - i. taking possession of assignments, answer keys and the like, prior to the time the examination or bachelor/master examination is to take place;
    - ii. changing answers to assignments in an examination or a bachelor/master examination after it has been handed in for assessment;
    - iii. providing incorrect information when applying for an exemption, extension of validity period, and the like, of an examination or a bachelor/master examination.
3. For the purpose of these regulations, an attempt to commit fraud will also be seen as fraud.

#### Article 4. **Procedure establishing fraud**

1. When fraud is suspected, the board of examiners or the examiner immediately informs the student of this suspicion. If the suspicion of fraud is established when the examination is administered, the board of examiners or the examiner will allow the student to complete the examination.
2. The board of examiners or the examiner may order the student to make any material related to the suspicion of fraud available to them.
3. For the purposes of the provisions in paragraphs 1 and 2 of the present article, examiner is also understood to mean the invigilator or any other RU member of staff.
4. The board of examiners or the examiner drafts a report of the suspicion of fraud. The report drafted by the examiner will be sent to the board of examiners without delay.
5. The board of examiners makes the report referred to in paragraph 4 available to the student without delay and then starts an investigation into the matter. The board of examiners provides the student with the opportunity to respond to the report in writing. The board of examiners hears both the examiner and the student.
6. Within four weeks following the date the report was made available to the student, the board of examiners decides whether fraud was actually committed. The board of examiners informs both the student and the examiner of their decision in writing. The four-week period may be extended by two weeks.

#### Article 5. **Remedial action**

If the board of examiners has established fraud:

- a) the board of examiners declares the relevant examination invalid, and
- b) the board of examiners includes a statement in the student's student file that it has established fraud and, if applicable, which sanctions have been imposed.

## Article 6. **Sanctions**

1. If the board of examiners has established that fraud has been committed, the board of examiners may:
  - a) determine that the student may not sit one or more examinations during a period to be set by the board of examiners, which period amounts to a maximum of one year;
  - b) determine that no distinction will be awarded on the degree certificate;
  - 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 should be ended.

If the board of examiners has established that *serious* fraud has been committed, the board of examiners may also

- d) make a recommendation to the executive board that the student's registration for a degree programme should be terminated with definitive effect.
2. After the board of examiners has established that serious fraud has been committed, the executive board – upon the board of examiners' recommendation – may terminate the student's registration for a programme with definitive effect.
3. The sanctions referred to in this article are imposed as from the day following the date the student is notified of the decision that sanctions are imposed.

## Paragraph 3. **Transitional provisions**

Not applicable

## Paragraph 4. **Final provisions**

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

1. Decisions pursuant to these regulations may be sent to the student digitally and/or by email.
2. The student can appeal against any decision made under these regulations, within six weeks following the date on the relevant decision, by lodging a notice of appeal at the Examinations Appeals Board (*College voor Beroep van de Examens (CBE)*).

### Article 8. **Adoption and amendment**

1. These regulations are adopted by the dean.
2. In so far as the content of these regulations relates to the duties and powers of the degree programme's board of examiners, the content must also be confirmed by that board of examiners.

Article 9. **Effect**

These regulations take effect on 1 September 2021. These regulations will then replace any previous regulations

Article 10. **Publication**

1. The dean ensures the appropriate publication and possible amendments of these regulations.
2. For the purpose of proper and clear provision of information to students and prospect students, the dean includes these regulations as an appendix to the Education and Examination Regulations (*Onderwijs- en Examenreglement (OER)*). Accordingly, the board of examiners includes these regulations accordingly as an appendix to the rules and guidelines of the degree programme to be laid down by that board.

Thus adopted by the dean and the board of examiners.

## Paragraph 1. Introductory provisions

### Article 1. Purpose of the regulations

For the proper course of events during examinations and master examination relating to the education and the examination of the Master's programme in Biomedical Sciences that are administered in examination rooms at Radboud University (hereinafter: RU), the dean of the Medical faculty of RU adopts the following regulations.

### Article 2. Definitions

The terms that are used in these regulations – in so far as these terms are also used in the Higher Education and Research Act (*Wet op het Hoger onderwijs en Wetenschappelijk onderzoek* (hereinafter: the Act)) 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 Act and the EER.

### Article 3. Examiners and invigilators

1. For the administration of examinations the board of examiners of the Master's programme in Biomedical Sciences has appointed one or more examiners.
2. The examiners appointed as referred to in paragraph 1 are responsible for the supervision and execution of the provisions in these regulations. On behalf of the examiner(s) appointed, one or more invigilators may be present in the examination rooms, assigned by or on behalf of the executive board.
3. When invigilators have been assigned, at least one appointed examiner is also present in the examination room or, as appropriate, available on call.

### Article 4. Instructions by the executive board

1. This regulation contains instructions in the sense of article 7.57h of the Act. Given the mandating decision of the Executive Board of May 15, 2019, the Dean is authorized to adopt these regulations on behalf of the Executive Board. The student is obliged to comply with the instructions laid down in these regulations.
2. A student who fails to comply with any instructions under these regulations may be denied access to the examination room by or on behalf of the examiner. Non-compliance with the instructions may also lead to a suspicion of fraud in the sense of the Regulations on Fraud (Regeling Fraude).

**Article 5. Guidelines for examiners**

These regulations include instructions in the sense of article 7.12b of the Act. The examiner is obliged to comply with the instructions laid down in these regulations.

**Article 6. Instructions by examiners for students**

1. The examiner may give instructions, in the context of the instructions described in these regulations, to a student in the RU examination room if a concrete situation should be cause for this. The student is obliged to comply with these instructions.
2. The student who fails to comply with the instructions referred to in paragraph 1 may be denied access to the examination room by or on behalf of the examiner. Not-compliance with the instructions may also lead to a suspicion of fraud in the sense of the Regulations on Fraud (*Regeling Fraude*).

## **Paragraph 2. House rules**

**Article 7. Admission to the examination room and leaving it**

1. With respect to entering and leaving the examination rooms, the following applies:
  - a. the examination room is accessible for the student at least 15 minutes before the examination starts;
  - b. except in the circumstances described in paragraphs c and d, the student is no longer admitted into the examination room after the examination has started;
  - c. the student who arrives too late at the examination room is given the opportunity, 15 minutes following the start of the examination, to be as yet admitted into the examination room;
  - d. the student is permitted to use the toilet during the examination;
  - e. the student is not allowed to leave the examination room within the first 30 minutes following the start of the examination;
  - f. the student is not allowed to leave the examination room within the last 30 minutes of the examination.
2. In special circumstances the examiner may act contrary to the provisions in paragraph 1. If the provisions in paragraph 1 are departed from, the student will be informed of this in due time.

**Article 8. Student ID**

1. In the examination room the student must be able to furnish proof of identity, at any time, by producing a valid identity document.

2. The student who cannot furnish proof of identity as laid down in the first paragraph of the present article will not be admitted into the examination room or can as yet be denied access to that room.

#### Article 9. **Start and duration of the examination**

The examiner starts the examination at the time scheduled. If the examination starts at a later moment in time because of relevant circumstances, the examiner ensures that the scheduled duration of the examination can be fully used by the student.

#### Article 10. **Materials permitted in examinations**

1. When taking the examination, the student is not allowed to have materials available that serve or could serve as auxiliary materials for the examination paper, unless the use of that material has been explicitly permitted by the examiner before the start of the examination.
2. Materials for the purpose of these regulations include, amongst other things: textbooks and dictionaries, notes and lecture notes, and watches, laptops, tablets, telephones and other smart devices and/or wearables.

#### Article 11. **Handing in examination papers**

1. When the examination ends, the student is obliged to hand in the examination paper.
2. The student may also be requested to hand in other examination materials, such as examination question papers and/or note paper used during the examination.

#### Article 12. **Peace and order and furniture and fixtures in the examination room**

1. Coats, bags and the like must be placed according to the examiner's instructions.
2. In order to prevent disruption of the Wi-Fi signal, equipment present in the room, including watches, laptops, tablets, telephones, and (other) (smart) devices and/or wearables, are switched off according to the examiners' instructions.
3. Without prejudice to the provisions of the preceding paragraphs, the examiner shall take the measures necessary for proper supervision and for maintaining the necessary order and rest in the examination room before, during and after the examination.
4. At the time of taking the examination, there is at least one clock that is clearly visible to every student in every examination room.
5. Eating and drinking in the examination room is permitted, unless proper supervision and/or maintaining the necessary order and rest is not possible as a result.

### **Paragraph 3. Transitional provisions**

N.A.

### **Paragraph 4. Final provisions**

#### **Article 13. Departure from rules and house rules**

In special circumstances the examiner may depart from the provisions in these regulations.

#### **Article 14. Adoption and amendment**

1. These regulations are adopted by the dean.
2. In so far as the content of these regulations relates to the duties and powers of the programme's board of examiners, the content must also be confirmed by that board of examiners.

#### **Article 15. Effect**

These regulations take effect on September 1, 2021. These regulations then replace any previous regulations.

#### **Article 16. Publication**

1. The dean ensures the appropriate publication of these regulations and any amendments of these regulations.
2. For the purpose of proper and clear provision of information to students and prospect students, the dean includes these regulations as an appendix to the Education and Examination Regulations (*Onderwijs- en Examenreglement (OER)*). The board of examiners includes these regulations accordingly as appendix to the rules and guidelines of the programme that are to be laid down by that board.

Thus adopted by the dean and ratified by the Board of Examiners.



## Appendix VI      Judicium Regulations Master BMS

This guideline is available on the Radboud University website ((<https://www.ru.nl/studenten/> or <https://www.radboudnet.nl/onderwijs/werkwijze-regelingen/>).

1. The Board of Examiners is the body that determines whether, and if so, which, judicium is awarded.
2. The judicium
  - a. “cum laude” is awarded if the weighted average result of the final assessment of the components referred to in paragraphs 3 and 4 is greater than or equal to 8.0, or
  - b. “summa cum laude” is awarded if the weighted average result of the final assessment of the components referred to in paragraphs 3 and 4 is greater than or equal to 9.0.
3. The judicium is calculated on all components of the examination program for which a mark has been awarded on a scale from 1 to 10.
4. A judicium as described in paragraph 2a or 2b is only awarded if the internships have been assessed with at least an 8.0 and the average of all theoretical components is at least 8.0
5. The number of ECs of the component as referred to in paragraph 3 applies as a weighting factor in the calculation of the weighted average result.
6. The judicium is not awarded if two or more components of the examination program have been retaken or if a component has been retested more than once, subject to the authority of the Board of Examiners to make a different reasoned decision.
7. The judicium is not awarded if fraud has been detected in one of the components of the entire examination program.