Hochschule
Bonn-Rhein-Sieg
University of Applied Sciences

Unofficial Translation of the German Original. The German Examination Regulation represents the only legally binding version.

Examination regulations

Programme-specific part

for the Master's programme

Biomedical Sciences

at the Rheinbach Campus

of the

Bonn-Rhein-Sieg University of Applied Sciences

of 23.03.2023

in the version of the second amendment regulation dated 01.10.2025

On the basis of § 2 paragraph (4) and § 64 of the Higher Education Act of the State of North Rhine-Westphalia (Higher Education Act - HG NRW) in the version published on 16 September 2014 (GV. NRW. page 547), last amended by the Act of 30 June 2022 (GV. NRW. p. 780b), the Department of Applied Natural Sciences at the Rheinbach Campus of Bonn-Rhein-Sieg University of Applied Sciences has issued the following examination regulations:

General

§ 1 Scope of the Examination Regulations

(1) These examination regulations shall apply in addition to the General Part of the Examination Regulations (PO-A) of the Faculty of Applied Natural Sciences of Bonn-Rhein-Sieg University of Applied Sciences for the Master's degree programme in Biomedical Sciences.

(2) The Examination Board of the Faculty of Applied Natural Sciences of Bonn-Rhein-Sieg University of Applied Sciences is responsible for matters relating to these examination regulations.

§ 2 Aim of the programme, purpose of the examination, academic degree

(1) The educational objective of the English-language Master's program in Biomedical Sciences is to award a professional qualification as Master of Science (M.Sc.). Students are enabled to work independently in the field of biomedical research, validate the results in clinical studies, and support the approval of medical products. In order to deepen these skills in both basic research and the approval of medical products, students choose between a research-oriented focus or a focus on clinical approval. The program thus qualifies students for further professional qualifications in the context of a doctorate or for a career in companies in the field of clinical research or diagnostics.

(2) After passing the final examination, the academic degree "Master of Science (M.Sc.)" is awarded in the degree programme Biomedical Sciences.

(3) The study programme leading to this degree provides the student with knowledge and understanding of biomedical sciences within the meaning of § 58 HG NRW.

(4) The final examination shall determine whether the student has acquired the specialist knowledge required for independent professional activity and is qualified to work independently based on scientific knowledge and methods.

§ 3 Prerequisites for study

(1) The admission requirements for admission to the Master's programme specified in §2 of the PO-A shall apply.

(2) The prerequisite for admission to the Master's degree programme in Biomedical Sciences is a previous, professionally qualifying university degree (e.g. Bachelor's degree or equivalent or higher degree) which has provided the minimum knowledge necessary for the study of the Master's degree programme. At least 180 ECTS must have been acquired in the professional qualification. Applicants

with a professional qualification in the field of biology, pharmacy or medicine or related disciplines must also prove knowledge in the subjects Molecular Biology/Genetics, Immunology, Human Biology, Physiology and Developmental Biology to the extent of at least 6 ECTS each. Graduates of the Bachelor's degree programme in Natural Science Forensics must demonstrate knowledge in the subjects Cell Biology, Forensic Genetics, Biochemistry, Physiology and Immunology of at least 6 ECTS each. All applicants must have acquired the required knowledge in a previous degree programme or alternatively through additional practical training completed at a university. These must be clearly documented in terms of scope and content. The examination board shall decide on the recognition of the additional internships. The first professional qualification must have a final grade of at least 2.5. State regulations for admission to the Master's degree programme which go beyond the aforementioned admission requirements shall remain unaffected by this regulation.

(3) Foreign applicants who are not treated as equivalent to Germans by or on the basis of international treaties and who do not have a German university entrance qualification must provide proof that they have passed the examination to determine their aptitude for the degree program. The exact procedure for conducting this examination is set out in a separate regulation (Regulations on the Procedure for Determining Study Aptitude for the Master's degree program in Biomedical Sciences).

§ 4 Standard period of study, scope of study, language of instruction

(1) The standard period of study shall be four semesters including the final thesis and final colloquium. The duration of the final thesis shall be five months.

(2) The course of study and the conduct of the module examinations shall be structured by the course of study plan and the general examination plan in such a way that the course of study can be completed within the standard period of study.

(3) In justified cases (e.g., bringing up children, care of persons in need of care, severe disability, stay abroad, participation in the self-administration of the university), the examination board may agree to a modified course of study.

(4) A total of 120 ECTS is acquired through the study of Biomedical Sciences.

(5) The scope of study comprises compulsory modules and compulsory elective modules - specified in the curriculum.

(6) Compulsory modules are mandatory for all students of the degree programme and conclude with a graded module examination. Compulsory elective modules are modules that are selected at the beginning of the semester from a catalogue of compulsory elective modules offered by the department and conclude with a graded or ungraded module examination. The examination results of the compulsory modules that are completed with a graded module examination are included in the overall grade of the transcript.

(7) In the second and third semesters, students specialize in the focus areas of ‘Biomedical Research’ or ‘Regulatory Affairs & Clinical Development’. The chosen focus area is listed on the transcript. To choose the focus area ‘Biomedical Research’, students must complete the compulsory modules ‘Neurobiology’ and ‘Advanced and Clinical Immunology’ as well as at least two elective courses from the field of ‘Biomedical Research’. For the focus area ‘Regulatory Affairs & Clinical Development’, students must take the compulsory subjects ‘Medical Device & IVD Development’ and

‘Signaling Pathways in Drug Development’ as well as at least two elective courses from the field of ‘Regulatory Affairs & Clinical Development’. The department's elective catalog specifies for each elective subject in the Master's program in Biomedical Sciences whether it counts toward the focus area ‘Biomedical Research’ or ‘Regulatory Affairs & Clinical Development’.

(8) With the consent of the examination board, elective modules can be attended at another department of the H-BRS or at another higher education institution within the area of application of the Basic Law for the Federal Republic of Germany Basic Law (Grundgesetz, GG), one of the partner universities or another foreign higher education institution.

(9) All compulsory courses of the Biomedical Sciences degree programme are offered in English. Enough compulsory elective courses are taught in English, additional offers of compulsory elective courses can also be taught in German if necessary. For the determination of the language of the courses, see also Annex 1. The language of the compulsory elective courses is determined by the dean.

§ 5 Scope and structure of the module examinations

(1) The Master's degree programme in Biomedical Sciences is divided into modules assessed with credit points, in which graded and ungraded module examinations are to be taken (Annex 1). The final thesis (thesis) with the final colloquium is assessed with 30 ECTS.

(2) In the case of modules that include a practical course, proof of successful completion of the practical course within the framework of a test is generally a prerequisite for the final passing of a module.

(3) The range of courses in the compulsory elective catalogue depends on the possibilities of the Department of Applied Natural Sciences. The contents of the compulsory elective catalogue are subject to change. The current compulsory elective catalogue is announced at the beginning of the semester by announcement and/or in electronic form.

Regulations on the course of study

§ 6 Examinations in the course of studies, study plan and study schedule

(1) The examination board shall draw up a general examination schedule to inform students at the beginning of their studies in which examination period a module will be examined for the first time and when the repeat examination will be.

(2) The study plan, Annex 2, shows the timing of the modules during the regular study programme.

(3) The study plan, Annex 3, provides information on the course forms of the modules (lecture, seminar teaching, tutorial, practical course) and the respective temporal scope in semester hours per week as well as the student workload in the form of ECTS.

(4) All modules of the degree programme shall be included in a lecture plan each semester. The lecture times and the lecture schedule shall be announced at the beginning of each lecture period by announcement and/or in electronic form.

§ 7 Compulsory attendance

To acquire practical skills, attendance is compulsory in the practical laboratory exercises of the courses or in language courses.

§ 8 Weighting of Module Examinations and Average Grade

To determine the overall grade of the final examination pursuant to § 26 Paragraph 2 of the PO-A, the average grade of the graded module examinations, weighted with the credit points, must be calculated. The weighting factors for the graded module examinations are listed in Annex 4.

Final provisions

§ 9 Entry into Force and Publication, Transitional Provisions

(1) These regulations shall enter into force with effect from the winter semester 2026/27. They shall be published in the Official Announcements of Bonn-Rhein-Sieg University of Applied Sciences - Announcement Gazette.

(2) Students were enrolled to the Master's program in Biomedical Sciences for the last time in the winter semester 2025/26 under the examination regulations MPO Biomedical Sciences MSc dated March 23, 2023, in the version of the first amendment dated December 12, 2024, in the first semester. The examination regulations MPO Biomedical Sciences MSc dated March 23, 2023, in the version of the first amendment dated December 12, 2024, for the master's program in Biomedical Sciences will be repealed on August 31, 2029. Starting in the winter semester 2026/27, the Biomedical Sciences MSc program will be offered on the basis of the examination regulations General Part (PO-A) dated March 23, 2023, and the MPO Biomedical Sciences MSc 2025 dated 01.10.2025. These examination regulations replace all program-specific regulations of the previous examination regulations for the Master's program in Biomedical Sciences in the department. For the remaining regulations of the previous examination regulations, §29 of the ‘General Examination Regulations’ applies accordingly.

(3) The dates by which the respective courses of the Master's program in Biomedical Sciences will be offered for the last time on the basis of the examination regulations MPO Biomedical Sciences MSc of March 23, 2023, in the version of the first amendment of December 12, 2024, are listed in Appendix 5. Enrolled students will be allowed to continue their studies until the end of the standard period of study plus four semesters. The dates until which the examinations for the M.Sc. Biomedical Sciences program based on the examination regulations MPO Biomedical Sciences MSc of March 23, 2023, in the version of the first amendment regulation of December 12, 2024, will be offered for the last time are listed in Appendix 5.

(4) Students enrolled in the Master's program in Biomedical Sciences based on the examination regulations MPO Biomedical Sciences MSc dated March 23, 2023, as amended by the first amendment dated December 12, 2024, who have not completed their studies by the specified

date(see §9, section 2), will be de-registered in accordance with § 51 section 1 number 3 Higher Education Act , unless they apply to transfer to the examination regulations MPO Biomedical Sciences M.Sc. 2025 dated 01.10.2025 or to another degree program at the university.

Issued on the basis of the decision of the Faculty Council of the Faculty of Applied Natural Sciences in Rheinbach on 01.10.2025.

Rheinbach, 01.10.2025

Prof. Dr. Richard Jäger
Dean of the Faculty of Applied Natural Sciences
of the Bonn-Rhein-Sieg University of Applied Sciences

Annexes

Appendix 1 - List of graded and ungraded modules with details of the language of instruction, the semester hours per week (SWS) and ECTS

Module	Language of Instruction	Workload in semester hours per week	ECTS	Module examination
Monitoring of Clinical Trials	English	6	8	Graded
Pharmacology/Toxicology	English	6	8	Graded
Clinical Chemistry	English	6	8	Graded
Pathophysiology	English	6	8	Graded
Personalized Medicine	English	6	8	Graded
Medical Proteomics	English	6	8	Graded
Biomedical Research: Neurobiology	English	6	8	Graded
Regulatory Affairs & Clinical Development: Medical Device & IVD Development	English	6	8	Graded
Elective Course 1	English/ German	3	3	Ungraded
Elective Course 2	English/ German	3	3	Ungraded
Biomedical Research: Advanced and Clinical Immunology	English	6	8	Graded
Regulatory Affairs & Clinical Development: Signaling Pathways in Drug Development	English	6	8	Graded
Human Genetics	English	6	8	Graded
Elective Course 3	English/ German	3	3	Ungraded
Elective Course 4	Englisch/ German	3	3	Ungraded
Elective Course 5	Englisch/ German	3	3	Ungraded
Elective Course 6	Englisch/ German	3	3	Ungraded

Appendix 2 – Study plan; compulsory subjects for the specialization in Biomedical Research and the specialization in Regulatory Affairs & Clinical Development are marked accordingly.

<table>
<tr><th>SEM</th><th>ECTS</th><th></th><th></th><th></th><th></th></tr>
<tr><td>1.</td><td>32</td><td>Monitoring
of Clinical Trials

8 ECTS</td><td>Pharmacology /
Toxicology

8 ECTS</td><td>Clinical Chemistry

8 ECTS</td><td>Pathophysiology

8 ECTS</td></tr>
<tr><td rowspan="2">2.</td><td rowspan="2">30</td><td rowspan="2">Personalized
Medicine

8 ECTS</td><td rowspan="2">Medical Proteomics
8 ECTS</td><td>Biomedical Research:
Neurobiology
8 ECTS</td><td>Elective Course 1

3 ECTS</td></tr>
<tr><td>Regulatory Affairs & Clinical
Development:
Medical Device & IVD
Development
8 ECTS</td><td>Elective Course 2

3 ECTS</td></tr>
<tr><td rowspan="2">3.</td><td rowspan="2">28</td><td rowspan="2">Human Genetics
8 ECTS</td><td>Biomedical Research:
Advanced and Clinical
Immunology
8 ECTS</td><td>Elective Course 3

3 ECTS</td><td>Elective Course 5

3 ECTS</td></tr>
<tr><td>Regulatory Affairs &
Clinical Development:
Signaling Pathways in
Drug Development
8 ECTS</td><td>Elective Course 4

3 ECTS</td><td>Elective Course 6

3 ECTS</td></tr>
<tr><td>4.</td><td>30</td><td colspan="4">MSc Thesis including Colloquium

30 ECTS</td></tr>
</table>

Appendix 3 – Study plan; compulsory subjects for the specialization in Biomedical Research and the specialization in Regulatory Affairs & Clinical Development are marked accordingly.

Module No.	Module	Type[1]	1	1	1	2	2	2	3	3	3	4	4	4	Total	
			L	S	P	L	S	P	L	S	P	L	S	P	SWS	ECTS
1	Monitoring of Clinical Trials	C	2	2	2										6	8
2	Pharmacology/Toxicology	C	2	2	2										6	8
3	Clinical Chemistry	C	3	1	2										6	8
4	Pathophysiology	C	2	2	2										6	8
5	Personalized Medicine	C				2	2	2							6	8
6	Medical Proteomics	C				2	2	2							6	8
7a	**Biomedical Research:** Neurobiology	C				2	2	2							6	8
7b	**Regulatory Affairs & Clinical Development:** Medical Device & IVD Development	C				2	2	2							6	8
8	Elective Course 1*	E				1	1	1							3	3
9	Elective Course 2*	E				1	1	1							3	3
10	Human Genetics	C							2	2	2				6	8
11a	**Biomedical Research:** Advanced and Clinical Immunology	C							2	2	2				6	8
11b	**Regulatory Affairs & Clinical Development**: Signaling Pathways in Drug Development	C							2	2	2				6	8
12	Elective Course 3*	E							1	1	1				3	3
13	Elective Course 4*	E							1	1	1				3	3
14	Elective Course 5*	E							1	1	1				3	3
15	Elective Course 6*	E							1	1	1				3	3
16	Master Thesis and Colloquium															30
			9	7	8	8	8	8	8	8	8	0	0	0	72	
	Summe der ECTS															120

[1] C, compulsory module; E, elective course. *The distribution of the 3 SWS between lectures, seminars, and practical training may vary.

Appendix 4: Weighting factors for calculating the average grade for module examinations; compulsory subjects in the 'Biomedical Research' and 'Regulatory Affairs & Clinical Development' specializations are marked accordingly.

Module	Credit Points (ECTS)	Weighting factor for the overall Master's grade
Monitoring of Clinical Trials	8	8/72
Pharmacology/Toxicology	8	8/72
Clinical Chemistry	8	8/72
Pathophysiology	8	8/72
Personalized Medicine	8	8/72
Medical Proteomics	8	8/72
Biomedical Research: Neurobiology	8	8/72
Regulatory Affairs & Clinical Development: Medical Device & IVD Development	8	8/72
Human Genetics	8	8/72
Biomedical Research: Advanced and Clinical Immunology	8	8/72
Regulatory Affairs & Clinical Development: Signaling Pathways in Drug Development	8	8/72

Appendix 5: List of courses and examinations finally offered in the Master's program in Biomedical Sciences based on the MPO Biomedical Sciences MSc dated March 23, 2023, as amended by the first amendment dated December 12, 2024.

Modules of 1. Semester

Module	Final date of course	Final date of exam
Monitoring of Clinical Trials	WiSe 2025/26	SuSe 2029
Pharmacology/Toxicology	WiSe 2025/26	SuSe 2029
Clinical Chemistry	WiSe 2025/26	SuSe 2029
Elective Course 1	WiSe 2025/26	SuSe 2029
Elective Course 2	WiSe 2025/26	SuSe 2029

Modules of 2. Semester

Module	Final date of course	Final date of exam
Virology	SuSe 2026	SuSe 2029
Neurobiology	SuSe 2026	SuSe 2029
Medical Proteomics	SuSe 2026	SuSe 2029
Elective Course 3	SuSe 2026	SuSe 2029
Elective Course 4	SuSe 2026	SuSe 2029

Modules of 3. Semester

Module	Final date of course	Final date of exam
Pathophysiology	WS 2026/27	SuSe 2029
Human Genetics	WS 2026/27	SuSe 2029
Advanced and Applied Immunology	WS 2026/27	SuSe 2029
Elective Course 5	WS 2026/27	SuSe 2029
Elective Course 6	WS 2026/27	SuSe 2029

Modules of 4. Semester

Module	Final date of course	Final date of exam
Abschlussarbeit	SuSe 2027	SuSe 2029