English language reading version of the Study and Examination Regulations for the master's degree program
Applied Biotechnology at Ansbach University of Applied Sciences
(SPO ABI/HSAN-20252)

dated 03 February 2025

Based on Art. 9 Sentence 1, Art. 79 Para. 1 Sentence 1, Art. 84 Para. 2 Sentence 1, Art. 85 Para. 1 Sentence 2, Art. 86 Para. 3 Sentence 4 Half-Sentence 2 of the Bavarian Higher Education Innovation Act – BayHIG – (BayRS 2210-1-3-WK) of August 5, 2022 (GVBl. p.414), last amended by § 14 of the Act of December 23, 2024 (GVBl. p. 605) and by § 8 of the Act of December 23, 2024 (GVBl. p. 632), the Ansbach University of Applied Sciences decrees the following statutes:

§ 1
Purpose of the study and examination regulations

These study and examination regulations serve to fill out and supplement the General Examination Regulations of the Ansbach University of Applied Sciences (APO/HSAN-20231) dated 15 March 2023, in their respective valid versions.

§ 2
Study objectives and contents

(1) [1]Building on a completed bachelor's degree, the master's degree program in Applied Biotechnology imparts the knowledge and skills required to meet the work demands of the biotechnology environment, which is characterized by innovations and legal requirements. [2]In this context, competencies are also imparted that enable students to play a decisive role in critically reflecting on and shaping of social processes, with a sense of responsibility and in a democratic public spirit.

(2) [1] The program provides advanced knowledge in biotechnological production, development and analytics, as well as quality and laboratory management. [2]Compulsory elective modules from economics, natural sciences, process engineering or languages can be used to focus the study program on individual needs and broaden and deepen competencies.

(3) [1] Graduates' career opportunities include positions in international corporations, small and medium-sized enterprises, NGOs and public authorities as well as start-ups, which increasingly act globally. [2] Regional, national, and international requirements, as well as global sustainability goals, are considered.

§ 3
Study program profile

[1]The English-language master's degree program "Applied Biotechnology" is a consecutive master's program. [2]It has an application-oriented profile and is categorized under engineering sciences with a strong focus on natural sciences. [3]The program leads to the degree Master of Science (M.Sc.).

§ 4
Qualification requirements, admission to studies

(1) Qualification requirements for admission to the master's program are:

1. [1]A successfully completed bachelor's degree comprising at least six theoretical semesters of study in a relevant course of study, or an equivalent degree, from Germany or abroad, the scope of which generally comprises 210 credit points but at least 180 credit points. [2]Relevant courses of study are, for example, those in biology, bioanalytics, biotechnology, bioprocess engineering, food technology, medical technology, molecular biology, pharmacy, or similar. [3]The examination board decides on the degree's relevance and/or equivalence.

2. [1]Proof of special qualification must be provided by a degree as per No. 1 with an overall examination grade of 1.9 or better. [2]Applicants with a grade between 2.0 and 2.5 may be admitted by the examination board upon proof of exceptional motivation. [3]Additionally, an interview may serve as proof of special qualification.

3. [1]For degrees that do not have credit points, the documented time hours (workload) are converted into credit points, whereby one credit point corresponds to an hourly load of 30 time hours. [2]If no time hours are verified, 30 credit points are recognized per theoretical semester of study. [3]Practical semesters are recognized with a further 30 credit points insofar as these correspond to the practical study semester at the Ansbach University of Applied Sciences in terms of type and scope.

4. Degrees from other grading systems or degrees without credit points are converted according to the so-called "Bavarian formula" as follows:
   N = 1+3 × (Pmax - P) ÷ (Pmax - Pmin).
   N = grade sought (average grade)
   P = total points/grade shown on the report card
   Pmax = upper benchmark (best possible score/grade)
   Pmin = lower benchmark
   N = 1.0 (for P > Pmax)

5. [1]If applicants can prove that they have completed a university degree or an equivalent degree for which less than 210 credit points but at least 180 credit points were awarded, the prerequisite for passing the master's examination is proof of the missing credit points from the range of courses offered by the Ansbach University of Applied Sciences and under the examination regulations of the Ansbach University of Applied Sciences. [2]The admission is made under the resolutive condition that the proof of the missing credit points is provided

within one year after the commencement of studies. Otherwise, the enrollment expires.

6. Applicants for the master's program who do not yet have an overall examination result at the time of the application deadline for the master's program must submit an official certificate from the previous university by 30 September showing the successful completion and grade point average with the credit points earned in the previous program.

7. [1]As the program is conducted in English, applicants must prove English proficiency at the B2 level of the Common European Framework of Reference for Languages (CEFR). [2]The following certificates are accepted as proof of language proficiency:

   a.) IELTS (International English Language Testing System) with 6.5 or better.
   b.) TOEFL (Test of English as a Foreign Language) with 85 points or better.
   c.) At least a "good" grade in "Technical English" or an equivalent English module in a previous German degree program.

8. Non-native German speakers must provide proof of German language proficiency at the A2 level of CEFR through one of the following certificates:

   a.) Goethe-Zertifikat Deutsch A2
   b.) telc Zertifikate Deutsch A2
   c.) ÖSD Zertifikate Deutsch A2
   d.) Exemptions apply to applicants with a successfully completed German-language Bachelor's or Diploma degree.

9. [1]Proof of exceptional motivation demonstrated in a letter of motivation (minimum 200 words, maximum 500 words) in German or English. [2]The examination board decides on the successful proof of exceptional motivation.

(2) There is no entitlement that the master's program will be offered in case of insufficient applicants.

§ 5
Application

(1) [1]Admission to the master's program is only possible for the winter semester. [2]Applications must be submitted online between May 1 and May 31.

(2) Applications are only accepted via the university's online application portal.

§ 6
Standard period of study and structure of the program

[1]The master`s program Applied Biotechnology is offered as a full-time and part-time program. [2]The full-time program has a standard duration of three semesters (90 credit points), of which the third semester is mainly used to write the master's thesis. [3]The part-time program lasts six semesters (90 credit points), of which the fifth and sixth semesters

are mainly used to write the master's thesis. [4]Weekly workload in the part-time format is approximately half that of the full-time format. [5]The part-time option must be requested upon application. [6]Switching is possible once.

§ 7
Modules and examinations

(1) [1]For passed examinations and continuous assessment tasks, credit points are awarded per module in accordance with the European Credit Transfer System (ECTS). [2]One credit point corresponds to a study workload of 30 hours. [3]The number of credit points is specified in Appendix 1 for the full-time program and in Appendix 2 for the part-time program of these Study and Examination Regulations. [4] The compulsory modules, types of courses, examinations, and credit points are detailed in the appendices of this statute.

(2) Upon application, the examination board may approve that students replace the modules listed in Appendix 1 to these regulations with modules suitable for the subject from the range of courses offered by the Ansbach University of Applied Sciences, the Virtual University of Bavaria e.V. or, in the context of mobility abroad, also from international universities with which a cooperation agreement exists.

(3) As a prerequisite for participation in internships, projects, and final theses in laboratories, students must have appropriate liability insurance.

§ 8
Proof of missing credit points

[1]If applicants have a qualifying university degree with fewer than 210 credit points but at least 180 credit points, they must provide proof of the missing credit points to pass the Master's examination. [2]Missing credit points, which must be earned by the end of the second semester, can be demonstrated upon request to the Examination Board through the completion of an additional internship or participation in relevant university courses. [3]Proof can be provided only once for each option. [4]A maximum of 30 credit points can be recognized. [5]The study plan may specify a selection of modules to complete the missing credit points.

§ 9
Study plan, module manual

(1) [1]The responsible faculty draws up a study plan and a module handbook to ensure the provision of courses and to inform students about the specific structure of the program. [2]The study plan is approved by the responsible Faculty Council and made publicly available within the university. [3]New regulations must be announced no later than the beginning of the lecture period of the semester in which they are first applied.

(2) [1]The curriculum shall contain, in addition, sufficiently specific information.

1. the compulsory modules offered and the compulsory elective modules;
2. the distribution of the semester hours per module and semester;

3. the duration and type of examinations;
4. more detailed regulations on performance and participation certificates.

[2]In addition, the module handbook shall contain sufficiently specific information on

5. the distribution of the workload;
6. the person(s) responsible for the module;
7. the intended learning outcomes, i.e. the knowledge, skills and competencies the students should have acquired after completing the compulsory and elective modules.

(3) There is no entitlement to the offering of modules if the number of participants is insufficient.

§ 10
Examination board

An examination board is established for the study program under the relevant legal provisions.

§ 11
Master thesis

(1) Through the master thesis, students should demonstrate that they can systematically and scientifically work on a problem from the field of life sciences and develop practical solutions.

(2) Agreeing on a topic of the master thesis requires that at least 50 credit points of the master`s degree study have been earned.

(3) [1]The topic of the master thesis is issued by a full-time professor of the Ansbach University of Applied Sciences. [2]The examination board decides on exceptions.

(4) The period from the assignment of the topic to the submission of the master thesis is six months in the full-time program and 12 months in the part-time program.

§ 12
Crediting/recognition of acquired competencies

[1]Recognition of competencies is only granted upon application. [2]The application must be made in due form using the forms of Ansbach University of Applied Sciences and must be submitted by the end of the first semester of study at the latest. [3]This deadline applies exclusively to crediting / recognizing competencies acquired before enrollment.

§ 13
Overall examination grade

The weighting of the grades of the modules for the calculation of the overall examination grade results from the credit points of the modules as specified in Appendices 1 and 2.

§ 14
Academic degree

Based on the successful completion of the program, the University of Applied Sciences Ansbach awards the academic degree Master of Science, short form: M.Sc.

§ 15
Legal validity

(1) These study and examination regulations come into effect on the day after they are published.

(2) The regulations of these Study and Examination Regulations apply for the first time to students who begin their studies in the winter semester 2025/2026.

Issued based on the resolution of the Senate of Ansbach University of Applied Sciences dated 29 January 2025, and the legal approval of the President dated 3 February 2025.

Ansbach, 3 February 2025

Prof. Dr.-Ing. Sascha Müller-Feuerstein
President

This declaration was registered at the University of Applied Sciences on 3 February 2025. The declaration was published on the Ansbach University of Applied Sciences website www.hs-ansbach.de on 3 February 2025. Therefore, the day of the announcement is 3 February 2025.

The English text in this document only serves the purpose of providing information on the contents of the corresponding German text. Only the German text is legally binding.

HOCHSCHULE ANSBACH

Appendix 1:

Overview of the modules in the master's program "Applied Biotechnology" at the Ansbach University of Applied Sciences (SPO ABI/HSAN-20252) - Full-Time Study

Module no.	Module	ECTS credit points	Teaching method	AR	Examinations	
					Type	Scope
1	Food Product Development	5	ST, E, P	-	portfolio exam / PW	5-15 pages and 20-30 min / 5-15 pages
2	Protein Purification	5	ST, E, P	P/E	written exam	60-120 min
3	Quality Management	5	ST, E, P	-	written exam / presentation / PA / seminar paper	60-120 min / 15-20 min / 10-20 pages
4	Elective Course I	5	ST, E, P	-	see study plan of the offering program	
5	Elective Course II	5	ST, E, P	-	see study plan of the offering program	
6	Elective Course III	5	ST, E, P	-	see study plan of the offering program	
7	German for Biotechnologists	5	ST, E	-	portfolio exam / presentation	5-15 pages and 20-30 min / 10-20 min
					written exam /seminar paper	60-120 min / 10-20 pages
8	Bioeconomy and Technology Assessment	5	ST, E, P	-	portfolio exam / written exam / PW	10-20 pages / 60-120 min
9	Leadership, Management and Research	5	eL, ST, E	Pa	written exam / presentation / PW / seminar paper	60-120 min / 15-20 min / 10-20 pages
10	Bioprocess Engineering	5	ST, E, P	P/E	written exam	60-120 min
11	Analytics	5	ST, E, P	-	written exam	60-120 min
12	Applied Cell Biology	5	ST, E, P	-	written exam / presentation / PW / seminar paper	60-120 min / 15-20 min / 10-20 pages
13	Master Thesis	30		§11(2)	MA	60-80 pages and up to 45 min

AR	Admission requirement
ST	Seminar teaching
E	Exercises
eL	e-Learning
P	Practical course
min	Minutes
MA	master thesis
Pa	Participation
PW	Project work
/	or

Portfolio exam: The Portfolio Examination consists of multiple assessment components conducted throughout the entire module. The duration of each component is determined by these regulations and may also be supported electronically and/or conducted as a multiple-choice examination. The Portfolio Examination can include a combination of project work and/or a presentation (15-30 min) and/or a colloquium (15-30 min) and/or a written exam and/or an oral exam (15-30 min) and/or mandatory participation in an exercise. Details are regulated by the study plan.

Appendix 2:

HOCHSCHULE ANSBACH

Overview of the modules in the master's program "Applied Biotechnology" at the Ansbach University of Applied Sciences (SPO ABI/HSAN-20252) - Part-Time Study

Module no.	Module	ECTS credit points	Teaching method	AR	Examinations	
					Type	Scope
1	Food Product Development	5	ST, E, P	-	portfolio exam / PW	5-15 pages and 20-30 min / 5-15 pages
2	Protein Purification	5	ST, E, P	P/E	written exam	60-120 min
3	Quality Management	5	ST, E, P	-	written exam / presentation / PA / seminar paper	60-120 min / 15-20 min / 10-20 pages
4	Elective Course I	5	ST, E, P	-	see study plan of the offering program	
5	Elective Course II	5	ST, E, P	-	see study plan of the offering program	
6	Elective Course III	5	ST, E, P	-	see study plan of the offering program	
7	German for Biotechnologists	5	ST, E	-	portfolio exam / presentation	5-15 pages and 20-30 min / 10-20 min
					written exam /seminar paper	60-120 min / 10-20 pages
8	Bioeconomy and Technology Assessment	5	ST, E, P	-	portfolio exam / written exam / PW	10-20 pages / 60-120 min
9	Leadership, Management and Research	5	eL, ST, E	Pa	written exam / presentation / PW / seminar paper	60-120 min / 15-20 min / 10-20 pages
10	Bioprocess Engineering	5	ST, E, P	P/E	written exam	60-120 min
11	Analytics	5	ST, E, P	-	written exam	60-120 min
12	Applied Cell Biology	5	ST, E, P	-	written exam / presentation / PW / seminar paper	60-120 min / 15-20 min / 10-20 pages
13	Master Thesis	30		§11(2)	MA	60-80 pages and up to 45 min

AR	Admission requirement
ST	Seminar teaching
E	Exercises
eL	e-Learning
P	Practical course
min	Minutes
MA	master thesis
Pa	Participation
PW	Project work
/	or

Portfolio exam: The Portfolio Examination consists of multiple assessment components conducted throughout the entire module. The duration of each component is determined by these regulations and may also be supported electronically and/or conducted as a multiple-choice examination. The Portfolio Examination can include a combination of project work and/or a presentation (15-30 min) and/or a colloquium (15-30 min) and/or a written exam and/or an oral exam (15-30 min) and/or mandatory participation in an exercise. Details are regulated by the study plan.