

Examination and Study Regulations
for the Master's Programme
Food System Sciences
at the University of Bayreuth
dated 25 September 2024

Article 9 sentence 1 in conjunction with Article 80 para 1 sentence 1 and Article 84 para 2 sentence 1 BayHIG forms the framework for the following regulations issued by the University of Bayreuth.

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§ 1

General Examination & Study Regulations

¹The master's programme Food System Sciences is governed by the General Examination and Study Regulations for the Bachelor's and Master's Programmes at the University of Bayreuth (APSO).

²Supplementary and deviating regulations for the master's programme in Food System Sciences are listed in the present document.

§ 2

Aim and structure of the degree programme

(1) ¹The master's programme Food System Sciences provides the candidate with the following skills:

- in-depth subject-specific and methodological knowledge in one of the following specializations:
 - Analytics in Life Sciences
 - Nutritional Physiology
 - Food Law
 - Bioeconomy;
- the ability to use this knowledge to solve complex problems in the field of food quality and safety using an integrative approach;
- the ability to carry out further independent academic work.

²The master's programme Food Systems Sciences, including all examinations, is conducted in English. ³On the basis of the successful completion of the master's examination, the Faculty of Life Sciences awards the academic degree Master of Science (abbr: M.Sc.).

(2) ¹The completion of an internship of nine weeks is a compulsory part of the degree programme; if the internship is completed part-time, the duration is extended accordingly. ²The internship can alternatively be completed in two partial internships of 4.5 weeks each; sentence 1 half-sentence 2 applies accordingly. ³Depending on the chosen specialization, the internship can be completed as a (laboratory) internship in research institutions (university or non-university institutions) or in companies or a law firm or similar. ⁴In principle, the internship can be completed either in Germany or abroad. ⁵The timing of the internship, if possible during the lecture-free period, depends on the requirements of the internship provider and is organized independently by the students. ⁶The relevant hosting institution is to provide certification of the type of internship and its duration. ⁷An internship report must be written about the internship in which the student describes the activities carried out on five to ten A4 pages. ⁸The

internship report is ungraded and is assessed by the examiner according to the "pass" or "fail" system.

- (3) ¹The master's programme is to be completed as a full-time degree programme. ²The degree programme can be started in the winter semester.

§ 3

Admission to the programme

- (1) Admission prerequisites for the master's programme are as follows:

1. a university degree with an examination grade of at least "good" (2.5) in one of the bachelor's programmes Chemistry, Biology, Biochemistry, Sustainable Chemistry & Energy, Law & Economics, Health Economics, Business & Information Systems Engineering, Business Administration, or Food & Health Sciences at the University of Bayreuth or an equivalent degree, or

a university degree with a minimum examination grade of "good" (2.5) in a bachelor's programme comprising at least 180 credit points in the fields of analytical chemistry, food chemistry, nutritional sciences, molecular biomedicine, plant biology, law, economics, social sciences, or ecotrophology or an equivalent degree.

2. proof of German language skills at level A1 or better of the Common European Framework of Reference for applicants who neither earned their higher education entrance qualification nor an initial degree in the German language; Applicants who do not meet this requirement will be enrolled on the condition that they submit the proof of the required German language proficiency by the end of their second semester of study at latest.
3. proof of English skills at level B2 or better of the Common European Framework of Reference for Languages for applicants who neither earned their higher education entrance qualification nor their initial degree in the English language.
4. the subject-specific aptitude assessment process for the degree programme in accordance with Annex 2.

- (2) ¹In the review of degree equivalence, the qualifications may not differ substantially in terms of the earned competences from the qualifications referred to in para 1 number 1. ²Art. 86 BayHSchG applies to determining the eligibility of domestic and foreign degrees. ³The decision on the equivalence of a degree is made by the board of examiners.

- (3) ¹If the certificate of the relevant first degree is not yet available, a confirmation with individual grades must be submitted for all examinations and coursework completed up to the registration

deadline. ²These achievements must comprise a total of at least 135 credit points and correspond to at least the grade "good" (2.5) according to the overall grade calculation. ³Applicants who fulfil the requirements of sentence 2 are to be enrolled on the condition that they submit the certificate of the relevant degree certificate with a grade of "gut" ["good"] or better by the end of the first semester of study.

§ 4

Additions and deviations

- (1) ¹In addition to § 6 APSO, it is possible to take further examinations in the core elective areas beyond the required scope; Paragraph 2 of the present regulations and § 14 para 1 APSO must be observed. ²There is no obligation to repeat failed examinations taken for the purpose of earning additional credits. ³The additional credits shall be included on the certificate as long as the student does not submit a request to the contrary.
- (2) ¹In addition to § 14 para 1 APSO, only the highest graded modules will be used in the overall grade calculation, taking into account the required credit points, if more credit points are earned in the core elective areas than are required. ²Non-graded modules are only counted after the graded modules for the purpose of obtaining the required credit points. ³If the last module still to be taken into account exceeds the credit points of the module area, the assessment of this module will only be included in the calculation of the final grade on a pro rata basis with the credit points still required. ⁴Other examinations taken in the core elective areas are not included in the final grade calculation.
- (3) In addition to § 31 para 5 APSO, up to two copies of the master's thesis must be submitted to the reviewer in typescript, bound and paginated at the request of the reviewer.
- (4) ¹In addition to § 32 APSO, the master's examination is failed on the final attempt if a student has not achieved at least 30 credit points from fully completed modules by the end of the third semester for reasons for which he or she is responsible. ²A notification of having failed the final attempt at the bachelor's or master's examination will be issued in accordance with § 2 para 5 in conjunction with Article 41 of the Bavarian Administrative Procedure Act.

§ 5

Effective date

- (1) ¹The present regulations go into effect on 26 September 2024. ²They shall be valid for students enrolling in this programme in Winter Semester 2024/2025 or later.

- (2) The Examination and Study Regulations for the Master's Programme Food System Sciences at the University of Bayreuth dated 20 February 2024 (AB UBT 2024/005) shall cease to be in force when the present regulations enter into force.

Annex 1: Modules, Credit Points, and Examinations

The module areas, the respective modules, credit points (CP) and the corresponding examinations are listed below.

Modules in the core elective areas B and C are assigned to the relevant specialization(s) in the right-hand column.

Possible specializations: I: Analytics in Life Sciences
 II: Nutritional Physiology
 III: Food Law
 IV: Bioeconomy

Additions to § 9 APSO:

- In addition to paragraph 6, the oral examination may be conducted in groups of no more than four students. In the case of a group examination, the total examination time for the whole group must not exceed 60 minutes.
- In addition to paragraph 8, the written version of the term paper and an electronic version must be submitted to the examiner by the beginning of the lecture period of the following semester at the latest. Papers that are not submitted by the stated deadline are to be graded as "nicht ausreichend" ["unsatisfactory"].

Abbreviations:

- | Vertical lines between examination forms indicate possible alternatives.
- + plus signs define several examinations to be taken.
- x/y fractions indicate the weighting with which the respective examination performance is included in the module grade.
- () Round brackets group related examination components. They can be used to define alternative examination forms for an examination or to divide an examination into several examinations.
- * Examinations marked with "*" are not included in the calculation of the module grade or overall grade.
- K written examination
- mP oral examination
- H term paper
- P presentation
- E essay
- semA assignments during the semester

Module area: Modules	Credit points	Examination	Specialization
Module area A: Inter-/transdisciplinary skills			
Analytics in Life Sciences – from Molecules to Cells	6	Portfolio assessment: K + semA	
Nutritional Physiology– from Cells to Organisms	6	Portfolio assessment: K + semA	
Food Law– from National to International Perspectives	6	K	
Bioeconomy – Sustainable Production, Business, and Society	6	K	
Study Skills, Science Communication, and Research Seminar	6	semA	
Total: module area A	30		
Module area B: Specialization - core elective			
Modules amounting to 30 credits must be taken, whereby modules amounting to at least 15 credits from one of the four possible specializations must be taken as a specialization. The missing credits in module area B must be completed individually with modules from the other specializations.			
Advanced Analytics and Food Quality	5	Portfolio assessment: (K mP) 2/5 + semA 3/5	I
Advanced Nutritional Biochemistry and Physiology	5	Portfolio assessment: K 3/5 + semA 2/5	I,II
Advanced Microbiology – Food Microbiology	5	Portfolio assessment: (K mP) 3/5 + semA 2/5	I, II
Advanced Genetics and Epigenetics	5	Portfolio assessment: K 3/5 + semA 2/5	I, II
Advanced Cell-Environment Interactions	5	Portfolio assessment: K 3/5 + semA 2/5	I,II
Advanced Human Physiology	5	Portfolio assessment: K 3/5 + semA 2/5	II

Module area: Modules	Credit points	Examination	Specialization
Advanced Plant Breeding and Sustainable Food Production	5	Portfolio assessment: (K mP) 3/5 + (E P) 2/5	II, IV
Seminar Entrepreneurship and Innovation	5	P Portfolio examination: P + semA	III, IV
Advanced Institutional and Substantive EU Food Law	5	K	III
Advanced Institutional and Substantive International Food Law	5	K	III
Global Political Economy of Food	5	K semA	III, IV
Advanced Business Analytics	5	Portfolio assessment: K 3/5 + semA 2/5	IV
Advanced Theories in Food Studies	5	K E	IV
Total: module area B	30		
Module area C: Specialization - core elective			
Modules amounting to 15 credits in a specialization must be taken. It is strongly recommended that students choose a specialization for which they have already completed modules amounting to at least 15 credits in module area B.			
Current Issues in Analytical Sciences	5	Portfolio assessment: K 3/5 + semA 2/5	I
Current Issues in Biochemistry and Biotechnology of Microorganisms	5	Portfolio assessment: (K mP) 3/5 + semA 2/5	I
Current Issues in Cellular Responses to External Cues	5	semA	I
Current Issues in Nutritional Biochemistry and Immunology	5	Portfolio assessment: K 3/5 + semA 2/5	II
Current Issues in Human Nutrition in Health and Disease	5	Portfolio assessment: K 3/5 + semA 2/5	II

Module area: Modules	Credit points	Examination	Specialization
Current Issues in Cellular, Organismal, and Exercise Physiology/Biology	5	Portfolio assessment: K 3/5 + semA 2/5	II
Current Issues in Food and Health Policy	5	K semA	III
Current Issues in European and International Food Trade Economic(s) Law	5	Portfolio assessment: H 3/5 + P 2/5	III
Current Issues in European and International Environmental Law	5	Portfolio assessment: H 3/5 + P 2/5	III
Current Issues in Business Analytics	5	Portfolio assessment: E 3/5 + P 2/5	IV
Current Issues in Food Studies	5	Portfolio assessment: H 3/5 + P 2/5	IV
Current Issues in Sustainability and Production of Plant-based Foods	5	semA	IV
Total: module area C	15		
Module area D: Cross-cutting specialization modules			
Research Seminar Food System Sciences	3	semA	
(Research) Internship	12	Internship report*	
Total: module area D	15		
Module area E: Master's thesis			
Master's thesis	30	Master's thesis	
Total: module area E	30		
Total			
	120		

Annex 2: Aptitude assessment process

Legal basis: Art. 90 para 1 sentence 2 BayHSchG

1. Purpose of aptitude assessment process

¹The purpose of this procedure is to determine whether, in addition to the knowledge proven by earning his or her initial degree, the applicant demonstrates a particular suitability for the interdisciplinary master's programme Food System Sciences. ²Aptitude parameters are as follows:

- a) a sound command of discipline-specific specialist knowledge from the initial degree programme in (analytical) chemistry, biology, biochemistry, food chemistry, molecular biomedicine, plant biology, economics, sociology, ecotrophology, food and health sciences, or law, which is relevant to the understanding and analysis of problems of food quality and the production, approval, and physiological effects of food;
- b) the distinct ability to acquire knowledge that is foreign from the perspective of the initial degree programme yet essential for food quality and safety.

2. Board responsible for the aptitude assessment process

¹A committee is responsible for preparing and conducting the aptitude assessment process. ²The committee consists of the examination board in accordance with § 2 APSO and up to four members from among the university lecturers (Art. 19 para 1 sentences 1 and 3 BayHIG) and other members of the full-time academic staff with examination authorization who are involved in this degree programme. ³The representatives are appointed by the Faculty Council of the Faculty of Life Sciences: Food, Nutrition and Health for a term of three years; re-election is possible.

3. Process for determining aptitude

3.1 ¹The aptitude assessment process is administered once every year, in Summer Semester for the following Winter Semester. ²The application for admission to the aptitude assessment process must be submitted online to the University of Bayreuth. ³The online application for admission must be received electronically by the University of Bayreuth by 15 June of the academic year for the following winter semester (cut-off deadline). ⁴Documents as described in number 3.2.2 can be submitted up to 15 July.

3.2 The following are to be enclosed with the completed application as described in number 3.1 sentence 2:

3.2.1 ¹A written rationale of up to two pages in the English language explaining the applicant's choice of the master's programme Food System Sciences in which the applicant explains

the specific talents that make him or her particularly suitable for the programme of study.

²For example, the specific motivation may be borne out by participation in professional training relating to the programme of study, internships, stays abroad, or subject-related supplementary courses taken during one's bachelor's studies beyond the required courses. ³If applicable, evidence is to be provided.

3.2.2 ¹The certificate of the relevant initial degree (e.g. bachelor's degree certificate) as well as a confirmation with individual grades of the examinations and coursework completed during the programme of study. ²If the relevant initial degree certificate or equivalent degree certificate has not yet been issued, confirmation of all individual grades and examinations for courses completed up to the date of late submission must be presented. ³Such credit for examination elements must amount to a total of at least 135 ECTS points. ⁴The relevant degree certificate is to be submitted by the end of the first semester of study. ⁵Upon request, the board of examiners can extend the submission deadline for the relevant degree certificates to up to the end of the second semester, as long as the reasons for the extension are beyond the student's control. ⁶This holds, in particular, if the student has already completed all examinations but the grades have not yet been disclosed or the certificate not yet issued.

3.2.3 a list of modules from the applicant's initial degree programme for which evidence of completion cannot yet be submitted

3.2.5 a CV as supplementary information to serve as a basis for the interview (see 5.2)

3.2.5 if available evidence of the following:

- a) special relevant qualifications (e.g. awards such as scholarships or prizes, vocational training relevant to the programme of study, internships, visits abroad) or
- b) interdisciplinary study skills

3.2.6 if applicable, a request for reasonable accommodations in accordance with § 12 of the APSO.

4. Admission to the aptitude assessment process

4.1 Admission to the assessment process requires that the documents listed in number 3.2 be submitted on time and in the required form.

4.2 The aptitude assessment process (number 5) is to be administered to those applicants who fulfil the requirements.

4.3 Applicants who are not admitted are to be sent a notice of denial with a rationale and information concerning legal remedies available; number 6.2 applies mutatis mutandis.

5. Overview of the aptitude assessment process

5.1 ¹On the basis of the application documents submitted, the board examines whether the applicant is suitable for the master's programme Food System Sciences with respect to his or her proven qualifications and the specific skills described (first stage of the aptitude assessment process). ²The assessment is carried out on a scale of 0 to 75, where 0 is the worst score and 75 is the best score. ³The points are assigned by the committee on the basis of the following criteria:

5.1.1 Written statement according to 3.2.1 as well as special qualifications and interdisciplinary study skills (according to 3.2.5))

¹The written statement of the applicant's reasons for the application will be assessed by two members of the board on a scale of 0 to 25 points. ²The members of the board will evaluate the following three criteria independently of one another and will score them. ³The number of points is calculated as the sum of the individual assessments divided by two and rounded to the nearest whole number value. ⁴The content of the written justification is assessed according to the following criteria:

a) verbal fluency (20 %)

b) Ability to demonstrate special aptitude and interdisciplinary study skills (40 %):
The applicant convincingly justifies his or her particular suitability for the interdisciplinary course of studies on the basis of arguments as well as previous qualifications and study skills.

c) Existence of special qualifications (40 %):

The applicant has relevant qualifications that go beyond the skills and qualifications earned over the course of the initial degree programme, e.g. accolades such as scholarships or prizes, internships, stays abroad (cf. 3.2.5 item a).

5.1.2 The subject-specific coursework and examinations in the relevant initial degree or the assessment components to date (according to 3.2.2)

¹In doing so, the curricular analysis is to be based on competencies, not carried out via a schematic comparison of the modules. ²It is based on the following elementary subject groups:

- scientific foundations in mathematics and data analysis, experimental physics, and chemistry (general chemistry, organic chemistry, physical chemistry, analytical chemistry),
- human biology, animal physiology, plant physiology, genetics, cell biology, microbiology, ecology, biochemistry, bioinformatics, ecotrophology.

- Social science foundations in economics, sociology, bioeconomy
- Legal foundations

³The examinations and coursework relevant for the master's programme Food System Sciences from the initial degree programme or the assessment components completed to date as per § 3 shall be included in the evaluation with up to 50 points. ⁴Assessment of competences shall be based on the relevance to the above-mentioned curricular contents of the corresponding bachelor's degree programmes and the academic performance, taking into account the recognisable range of achievements. ⁵The awarding of points is described in more detail in no. 9.

5.1.3 The total number of points awarded to the candidate for the first stage of the aptitude assessment process is the sum of the individual assessments made under 5.1.1 and 5.1.2.

5.1.4 Applicants who received 50 points or more in the first stage of the aptitude assessment process are classified as "suitable" and shall be sent confirmation of having passed the aptitude assessment process.

5.1.5 Applicants who have scored less than 40 points in the first stage of the aptitude assessment process will not proceed to the next stage of the process according to no. 5.2. ²They shall be sent a notice of denial with a rationale and information concerning legal remedies available; 6.2 applies mutatis mutandis.

5.2 ¹The remaining applicants with scores of at least 40 up to 49 points will be invited to an interview (second stage of the aptitude assessment process). ²In the second stage of the aptitude assessment process, the qualification acquired in the initial degree programme and the result of the interview are evaluated. ³The date and time of the interview are to be announced at least one week in advance.

5.2.1 ¹The selection interview must be conducted individually for each applicant. ²The interview is to last between 10 and 20 minutes for each applicant and should demonstrate whether it is to be expected that the aim of the programme of study can be achieved given the applicant's previous education. ³During the interview, the student's understanding and interest in learning about content from other relevant subject areas will be examined with regard to the requirements of the degree programme. ⁴The content of the interview covers the following main topics:

- a) Particular willingness to perform, which suggests that the performance level of the relevant first degree will be significantly exceeded in general or in relation to the chosen specialization (40 %):
 - Is there evidence of rapid, determined progress in the applicant's studies?

- Is there a specific aptitude for a subject that can be studied in the degree programme, documented by additional modules or non-university activities (e.g. membership or activity in relevant organizations) in this field?
 - Does the CV demonstrate a particular determination (e.g. relevant additional internships, relationship between previous employment and the programme of study)?
- b) Ability to appropriately analyse fundamental questions of chemistry, human physiology, law and economics and/or bioeconomics in relation to food quality and the production, approval and/or physiological effects of food (40 %).
- c) Personal impression of suitability (after the interview) (20 %):
- For example, this may be based on the applicant's ability to convincingly provide statements by means of arguments and meaningful examples and his or her ability to answer questions appropriately.

⁵The interview shall be conducted by two members of the board who come from different subject areas relevant to the programme of study and are thus able to assess the applicant's interdisciplinary skills. ⁶Each member of the board is to assign a grade for the interview on a scale of 0 to 25. ⁷The total score of the interview is the sum of the two partial results, where 0 is the worst and 50 the best score possible.

- 5.2.2 ¹The overall assessment of the second stage of the aptitude assessment process is made up of the score for the interview and the previous studies as described in 5.1.2. ²Applicants who received 60 points or more in the first stage of the aptitude assessment process are classified as "suitable" and shall be sent confirmation of having passed the aptitude assessment process. ³Applicants who received below 60 points are classified as "unsuitable" and shall be sent a notice of denial with a rationale and information concerning their right to appeal; number 6.2 applies *mutatis mutandis*.
- 5.2.3 ¹A written record shall be made of the interview by a minute taker, indicating the date, duration, location, name of committee members involved, the name of the applicant, the assessment of the committee members involved, and the overall outcome. ²The record must show the topics of the interview with the applicant and the rationale for the assessment. ³The reasons and topics may be listed in note form. ⁴The record sheet is to be signed by the committee members.

6. Notification of the outcome

- 6.1 The course of the aptitude assessment process must be documented; in particular, the decisions of the board in accordance with the present regulations and the overall outcome must be evident.
- 6.2 ¹The applicant will be informed of the outcome of the aptitude assessment process. ²A notice of denial must be accompanied by a rationale and information on the applicant's right to appeal.
- 6.3 Admission based on the aptitude assessment process for the master's programme Food System Sciences shall remain valid for future applications to this programme of study as long as the content and goals of the programme do not change so significantly that aptitude for this programme can no longer be demonstrated by having undergone the aptitude assessment process at an earlier date.

7. Repeating the process

Applicants who did not provide evidence of aptitude for the master's programme Food System Sciences may register for the aptitude assessment process one more time.

8. Aptitude assessment process for higher semesters

For applicants who wish to enter advanced semesters (university transfer, career changers), nos. 3 to 7 apply accordingly.

9. Assessment key

The subject-specific study and examination achievements of the relevant first degree (No. 5.1.2) are included in the assessment according to the following table.

POINTS	Rating	ASSESSMENT
41-50	<i>sehr gut</i> [very good]	Outstanding performance in more than one of the fields of chemistry/biochemistry, physiology/health sciences, law, economics, or sociology
31-40	<i>sehr gut</i> [very good]	Achievements in more than one of the fields of chemistry/biochemistry, physiology/health sciences, law, economics, or sociology that are significantly above the average requirements
21-30	<i>gut</i> [good]	Outstanding performance in the fields of chemistry/biochemistry, physiology/health sciences, law, economics, or sociology

POINTS	Rating	ASSESSMENT
41-50	<i>sehr gut</i> [very good]	Outstanding performance in more than one of the fields of chemistry/biochemistry, physiology/health sciences, law, economics, or sociology
31-40	<i>sehr gut</i> [very good]	Achievements in more than one of the fields of chemistry/biochemistry, physiology/health sciences, law, economics, or sociology that are significantly above the average requirements
11-20	<i>gut</i> [good]	Achievements in the fields of chemistry/biochemistry, physiology/health sciences, law, economics, or sociology that are significantly above the average requirements
1-10	<i>befriedigend</i> [satisfactory]	Achievements in the fields of chemistry/biochemistry, physiology/health sciences, law, economics, or sociology that meet the average requirements

Issued on the basis of a decision made by the University of Bayreuth's Senate on 17 July 2024 and approved by the President of the University of Bayreuth on 16 September 2024, Ref. No. A 3770.52 - I/1.

Bayreuth, 25 September 2024

UNIVERSITY OF BAYREUTH THE PRESIDENT
[seal] [signature]

Professor Dr. Stefan Leible

These regulations were enacted at the university on 25 September 2024.

This was announced on 25 September 2024 by posting a notice at the university.

The date of the announcement is 25 September 2024.