This version is valid for students who have started their studies in the winter semester 2021/2022.

Only the officially published version is binding

Subject examination and study regulations for the Bachelor's degree program in Life Sciences Nutritional Science at the Technical University of Munich

From 22 July 2019

Readable version
as amended by the Articles of Amendment dated May 14, 2021

Based on Article 13, Paragraph 1, Sentence 2 in conjunction with Article 58, Paragraph 1, Sentence 1 and Article 61, Paragraph 2, Sentence 1 of the Bavarian University Act (BayHSchG), the Technische Universität München enacts the following statutes:

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I. General provisions

§ 34
Scope, academic degree, related courses of study

(1) [1]These Subject Examination and Study Regulations (FPSO) supplement the General Examination and Study Regulations for Bachelor's and Master's Programs at the Technical University of Munich (APSO) of March 18, 2011, as amended. [2]The APSO has priority.

(2) [1]On the basis of the successful completion of the Bachelor's examination, the academic degree "Bachelor of Science" ("B.Sc.") is awarded. [2]The academic degree may be awarded with the university suffix "(TUM)".

(3) [1]There is no related degree program to the Bachelor's degree program in Life Sciences Nutritional Science at the Technische Universität München. [2]When transferring from another university to Technische Universität München, the responsible examination board decides on the relatedness of the degree program based on the examination/study regulations of the university in question.

§ 35
Start of study, standard period of study, ECTS

(1) The start of studies for the bachelor's degree program in Life Siences Nutrition Science is governed by § 5 APSO.

(2) [1]The number of credits required to obtain the Bachelor's degree in the compulsory and elective areas is 168 (131 SWS). [2]In addition, there are three months (12 credits) for the preparation of the Bachelor's thesis. [3]The scope of the study and examination achievements in the compulsory and elective areas according to Appendix 1 in the Bachelor's degree program in Life Sciences Nutritional Science thus amounts to at least 180 credits. [4]The standard period of study for the bachelor's degree program is six semesters in total.

§ 36
Qualification requirements

(1) For the bachelor's degree program in Life Sciences Nutritional Sciences, the general admission requirements for studying at a university must be met in accordance with the Ordinance on Qualification for Studies at the Universities of the Free State of Bavaria and the State-recognized Non-Governmental Universities (Qualification Ordinance-QualV) (BayRS 2210-1-1-3-K/WK), as amended.

(2) In addition, proof of aptitude is required in accordance with the Statutes on the Determination of Aptitude for the Bachelor's Degree Program in Life Sciences Nutritional Sciences, as amended from time to time.

§ 37
Modularization, courses, language of instruction

(1) [1]General regulations on modules and courses are set out in §§ 6 and 8 APSO. [2]In the event of deviations from module specifications, § 12 Para. 8 APSO shall apply.

(2) The study plan with a list of the modules to be taken in the compulsory and elective areas is listed in Annex 1.

(3) [1]Thanks to a high proportion of practical courses and exercises (experimental nutrition research, etc.), there is a direct link to practice in the Bachelor's degree program in Life Sciences Nutritional Sciences. [2]Thus, students acquire a broad knowledge of methods already during their studies and become familiar with current research topics.

(4) [1]As a rule, the language of instruction in the Bachelor's degree program in Life Sciences Nutrition Science is German. [2]If it is stated in Annex 1 for a module that it will be held in English or German, the examiner shall announce the language of instruction in a suitable and binding manner no later than at the beginning of the lecture.

§ 38
Examination deadlines, study progress monitoring, missed deadlines

(1) Examination deadlines, study progress monitoring and missed deadlines are regulated in § 10 APSO.

(2) [1]The module examination "Fundamentals of Human Nutrition" and "Fundamentals of Human Physiology" listed in Annex 1 must be successfully passed by the end of the third semester. [2]If the deadline is exceeded, § 10 para. 5 APSO shall apply.

§ 39
Audit Committee

The body responsible for decisions in examination matters according to § 29 APSO is the Examination Board Nutritional Science of the TUM School of Life Sciences.

§ 40
Crediting of periods of study, academic achievements and examination results

The crediting of periods of study, coursework and examinations is governed by § 16 APSO.

§ 41
Course-related examination procedure, forms of examination

(1) [1]Possible forms of examination in accordance with §§ 12 and 13 APSO are, in addition to written examinations and oral examinations in this degree program, in particular laboratory performances, exercise performances (if applicable, tests), reports, project work, presentations, learning portfolios and scientific papers and the examination course. [2]The concrete components of the respective module examination and the competencies to be tested with it are listed in the module description. [3]The examination

can be conducted as an individual or group examination if the topic is suitable; § 18 para. 2 sentences 2 and 3 APSO apply accordingly.

a) [1]An **examination** is a written work under supervision with the aim to recognize problems in a limited time with the given methods and defined aids and to find ways to solve them and to be able to apply them if necessary. [2]The duration of written examinations is regulated in § 12 para. 7 APSO.

b) [1]Laboratory services include, depending on the discipline, experiments, measurements, work in the field, field exercises, etc. with the aim of carrying out, evaluating and gaining knowledge. [2]Components can be e.g.: the description of the processes and the respective theoretical basis incl. literature study, the preparation and practical execution, if necessary necessary calculations, their documentation and evaluation as well as the interpretation of the results with regard to the knowledge to be gained. [3]The laboratory performance can be supplemented by a presentation in order to test the communicative competence in presenting scientific topics to an audience.

c) [1]The **exercise performance (if applicable, tests)** is the processing of given tasks (e.g. mathematical problems, programming tasks, modeling, etc.) with the aim of applying theoretical content to solve application-related problems. [2]It serves the verification of factual and detailed knowledge as well as its application. [3]The exercise performance can be carried out in writing, orally or electronically, among others. [4]Possible forms are e.g. homework, exercise sheets, programming exercises, (e-)tests, tasks in the context of university internships, etc.

d) [1]A **report** is a written review and summary of a learning process with the aim of reproducing what has been learned in a structured manner and analyzing the results in the context of a module. [2]The report should prove that the essential aspects have been recorded and can be reproduced in writing. [3]Possible report forms are, for example, field trip reports, internship reports, work reports, etc. [4]The written report can be supplemented by a presentation in order to test the communicative competence in presenting the contents to an audience.

e) [1]In the context of a **project work, a** project assignment is to be achieved as a defined goal in a defined time and with the use of suitable instruments in several phases (initiation, problem definition, role allocation, idea generation, criteria development, decision, implementation, presentation, written evaluation). [2]In addition, a presentation can be part of the project work to test communicative competence in presenting scientific topics to an audience. [3]Project work may also include design drafts, drawings, plan representations, models, objects, simulations and documentation.

f) [1]The **scientific paper** is a written performance in which a challenging scientific or scientific-application-oriented question is independently processed using the scientific methods of the respective discipline. [2]It should be demonstrated that a question corresponding to the learning outcomes of the respective module can be completely processed in compliance with the guidelines for scientific work - from analysis to conception to implementation. [3]Possible forms, which differ in their respective level of demand, are e.g. thesis paper, abstract, essay, study paper, seminar paper, etc. [4]The scientific elaboration can be accompanied by a presentation and, if necessary, a colloquium in order to test the communicative competence of presenting scientific topics in front of an audience.

g) [1]A **presentation** is a systematic, structured and visually supported oral presentation using suitable media (such as beamers, transparencies, posters, videos), in which specific topics or results are illustrated and summarized and complex issues are reduced to their essential core. [2]The presentation is intended to demonstrate the competence to develop a specific subject area in a certain time in such a way that it can be presented or lectured to an audience in a clear, concise and understandable manner. [3]In addition, it should be demonstrated that questions, suggestions or discussion points of the audience can be dealt with in an informed manner in relation to the respective subject area. [4]The presentation can be supplemented by a short written preparation.

h) [1]An **oral examination** is a time-limited examination discussion on specific topics and concrete questions to be answered. [2]In oral examinations, it should be demonstrated that the qualification objectives documented in the module descriptions have been achieved and that the interrelationships of the examination area have been recognized and special questions can be placed in these interrelationships. [3]The duration of the examination is regulated in § 13 Para. 2 APSO.

i) [1]A **learning portfolio** is a written presentation of one's own work, selected according to previously defined criteria, with which learning progress and performance status at a certain point in time and in relation to a defined content are to be demonstrated. [2]The selection of the work, its relation to the student's own learning progress and its significance for the achievement of the qualification goals must be justified. [3]The learning portfolio should demonstrate that responsibility has been taken for the learning process and that the qualification objectives documented in the module description have been achieved. [4]Depending on the module description, the components of successful self-learning checks of the learning portfolio may include, in particular, works with application relevance, websites, weblogs, bibliographies, analyses, thesis papers as well as graphical presentations of an issue or a question. [5]On the basis of the learning portfolio, a summary discussion can take place for verbal reflection.

j) [1]In an **examination course,** several examination elements are to be completed within one examination performance. [2]In contrast to a partial module examination, the examination performance is examined in an organizationally (spatially and temporally) coherent manner. [3]Examination elements are several different examination formats which in their entirety cover the complete competence profile of the module. [4]In particular, examination elements can also be examination formats according to letters g) and h) in combination with a practical performance. [5]The total duration of the examination shall be specified in the module catalog.

(2) [1]The module examinations are usually taken during the course of study. [2]The type and duration of a module examination are specified in Annex 1. [3]In the event of deviations from these stipulations, § 12 Para. 8 APSO must be observed. [4]For the evaluation of the module examinations, § 17 APSO shall apply. [5]The grade weights of partial module examinations correspond to the weighting factors assigned to them in Annex 1.

(3) If Appendix 1 specifies for a module examination that it is written or oral, the examiner shall announce the binding type of examination to the students in an appropriate manner no later than the beginning of the lecture.

(4) At the request of the students and with the approval of the examiners, examinations may be taken in English for courses taught in German.

§ 41 a
Multiple choice

The implementation of multiple-choice procedures is regulated in § 12 a APSO.

§ 42
Study achievements

In the bachelor's degree program in Life Sciences Nutritional Science, no course work is required other than examination credits.

§ 43
Registration and admission to exams

(1) Upon enrollment in the Bachelor of Life Sciences Nutritional Science program, students are considered admitted to the module examinations of the bachelor's degree.

(2) [1]Registration for an examination in a compulsory and elective module is governed by § 15 para. 1 APSO. [2]Registration for a corresponding repeat examination in a failed compulsory and elective module is governed by § 15 para. 2 APSO.

§ 44
Repetition, failure of examinations

(1) [1]The repetition of examinations is regulated in § 24 APSO. [2]For the repetition of failed partial module examinations for modules that extend over at least two semesters, § 24 para. 4 sentence 5 APSO applies.

(2) The failure of examinations is regulated by § 23 APSO.

II. bachelor examination

§ 45
Admission to the Bachelor's examination

Upon enrollment in the Bachelor of Life Sciences Nutritional Science program, students are considered admitted to the module examinations of the bachelor's degree.

§ 46
Scope of the Bachelor's examination

(1) The bachelor's degree examination includes:
1. the module examinations according to par. 2,
2. the Bachelor's Thesis according to § 47.

(2) [1]The module examinations are listed in Appendix 1. [2] 124 credits (without Bachelor`s Thesis) in compulsory modules and at least 44 credits in elective modules have to be proven. [3]When choosing the modules, § 8 para. 2 APSO is to be observed."

§ 47
Bachelor's Thesis

(1) [1]Pursuant to § 18 APSO, students must prepare a Bachelor's Thesis as part of the Bachelor's examination. [2]The Bachelor's Thesis can be issued by expert examiners of the TUM School of Life Sciences of the Technical University of Munich and supervised within the framework of an examination colloquium (seminar) (Themensteller oder Themenstellerin). [3]The expert examiners according to sentence 2 are appointed by the examination board.

(2) [1]The completion of the Bachelor's Thesis module should normally represent the last examination performance. [2]Students may be admitted to the Bachelor's Thesis prematurely upon application if the goal of the Thesis can be achieved within the meaning of § 18 Para. 2 APSO, taking into account the previous course of study.

(3) [1]The time from issuance to delivery of the Bachelor's Thesis may not exceed three months. [2]The Bachelor's Thesis shall be deemed to have been taken and not passed if it is not delivered on time without valid reasons recognized in accordance with § 10 Para. 7 APSO. 312 credits shall be awarded for the Bachelor's Thesis that has been passed.

(4) [1]If the Bachelor's Thesis was not evaluated with at least "sufficient" (4.0), it can be repeated once with a new topic. [2]It must be re-registered no later than six weeks after the notification of the result.

§ 48
Passing and evaluation of the Bachelor examination

(1) The bachelor's examination is passed if all examinations listed within the framework of the bachelor's examination according to § 46 have been successfully taken and a point account balance of at least 180 credits has been achieved.

(2) [1]The module grade is calculated according to § 17 APSO. [2]The overall grade of the Bachelor examination is calculated as the weighted grade average of the modules according to § 46. [3]The grade weights of the individual modules correspond to the assigned credits. [4]The overall grade is expressed by the predicate according to § 17 APSO.

§ 49
Certificate, Diploma Supplement

[1]If the Bachelor examination has been passed, a certificate, a certificate and a Diploma Supplement with a Transcript of Records shall be issued in accordance with § 25 Para. 1 and § 26 APSO. [2]The date of the certificate shall be the date on which all study and examination achievements have been completed.

III. final provision

§ 50
Entry into force*)

(1) [1]These regulations shall come into force with effect from April 1, 2019. [2]It applies to all students who begin their specialized studies at the Technical University of Munich as of the winter semester 2019/2020.

(2) [1]The subject examination and study regulations for the Bachelor's degree program in Nutritional Science at the Technische Universität München dated August 20, 2015 shall cease to apply at the same time, subject to the provision in Paragraph 1 Sentence 2. [2]Students who have already commenced their subject studies at the Technische Universität before the winter semester 2019/2020 shall complete their studies in accordance with the regulations pursuant to sentence 1.

*) This provision concerns the entry into force of the Articles of Association in the original version of July 22, 2019. The date of entry into force of the amendments shall be determined by the amending Articles of Association.

Appendix 1: Examination modules

Compulsory modules of the Bachelor examination

No.	Module name	Teaching form SWS	Sem	SWS	Credits	Exam-art	Exam duration	Weighting factor	Language of instruction
MA9609	Higher mathematics and statistics	V3+Ü3	1.	6	7	Written exam	120	-	german
CH0142	General and inorganic chemistry with Internship	V4+P4	1.	8	10	Written exam	90	-	german
WZ0702	Basics human nutrition	V2+Ü1	1.	3	5	Written exam	90	-	german
PH9034	Physics for Life Sciences	V2+Ü3 + P3	1 and 2.	8	7	Written exam Laboratory performance	90	4:3	german
WZ0128	Fundamentals of genetics and cell biology	V3+V3	2.	6	6	Written exam	90	-	german
CH0144	Organic and Physical Chemistry with Internship	V2 + V2 + Ü1 + P4	2.	9	10	Written exam; laboratory performance	150	3:2	german
WZ0225	Basics human physiology	V4+V3	2.	4	6	Written exam	90	-	german
WZ3007	Basics microbiology	V2+Ü2	3.	4	5	Written exam	90	-	german
WZ0226	Special physiology of nutrition	V3+Ü3	3.	6	10	Written exam	90	-	german
WZ3113	Food Chemistry I and II	V2+ V2+Ü2	3. and 4.	6	10	Written exam	180	-	german
WZ0130	Basics Biochemistry and energy metabolism	V3 + V2+Ü1	3. and 4.	6	8	Written exam	120	-	german
WZ3103	Nutritional physiology of macro and Micronutrients	V2+S2+ V2	3. and 4.	6	9	Written exam	120	-	german
WZ3107	Biofunctionality of the food	V2+S2	4.	4	5	Written exam	90	-	german

WZ3012	Experimental nutrition research	V2+Ü6	4.	8	8	Written exam	180	-	german
WZ3118	Nutritional medicine and clinical trials	V2+V1	4.	3	5	Written exam	120	-	german
WZ3095	Biostatistics	V2+Ü2	5.	4	5	oral examination	30	-	german
WZ3117	Seminar Integrated Nutrition Science	S6	5. and 6.	6	8	oral examination	45	-	german
WZ3024	Bachelor's Thesis	P4+S2	6.	6	12	Knowledge-scientific elaboration		-	german
	total			**103**	**136**				

Explanations: Sem. = semester; SWS = semester hours per week; V = lecture; S = seminar;
Ü = exercise; P = practical course;

Electives (1st to 2nd semester)- General Education:

General education electives totaling at least **9 credits** should be selected in the 1st and 2nd semesters:

No.	**Module name**	**Teaching form SWS**	**Sem**	**SWS**	**Credits**	**Exam-art**	**Exam duration**	**Weighting factor**	**Language of instruction**
WZ2755	General economics	V	1.to 3.	2	3	Written exam	60	-	german
WI000190	General Business Administration	V	1.to 3.	2	3	Written exam	60	-	german
	Interdisciplinary Modules and Languages*	V	1.to 3.	2	3* each	Written or oral exam		-	german
	Total			**6**	**9**				

Explanations: Sem. = semester; SWS = semester hours per week; V = lecture; S = seminar;
Ü = exercise; P = practical course;

* The module includes interdisciplinary courses offered by the Technical University of Munich, for example "General Education Subjects" in the scientifically oriented basic studies of the TUM School of Life Sciences, the courses offered by the Language Center (including: English for Academic Purposes: Gateway to English Master's) or the interdisciplinary modules of the Carl von Linde Academy. Furthermore, further modules from the overall TUM offer can be admitted by the examination board upon justified application.

In addition, at least **35 credits** of **subject-specific electives** must be taken in **the 5th through 6th semesters.**
Elective modules (5th-6th semester)- subject-specific part 1:

Of these, **at least 15 credits** (3 modules) must be chosen from the following areas of specialization:

No.	Module name	Teaching form SWS	Sem	SWS	Credits	Exam-art	Exam duration	Weighting factor	Language of instruction
WZ3011	Fundamentals of Immunology	V2+S2	5.	4	5	Written exam	90	-	german
WZ3119	Pediatric Nutritional Medicine	V2+S2	5.	4	5	Written exam	120	-	german
WZ3114	Food technology	V2+Ü2	5.	4	5	Written exam	90	-	german
WZ3111	Public Health Nutrition	V2+Ü2	6.	4	5	oral examinati on	30	-	german
WZ3104	Food micro-biology and law	V2+V2	6.	4	5	Written exam	120	-	german
WZ3026	Toxicology	V3	6.	3	5	Written exam	90	-	german
	Total			**23**	**30**				

Explanations: Sem. = semester; SWS = semester hours per week; V = lecture; S = seminar;
Ü = Exercise; P = Practical course

Elective modules (5th-6th semesters) - subject-specific part 2:

From the following exemplary list, at least **20 credits of** additional elective modules must be completed in compliance with § 37, para. 3:

The examination board continuously updates the subject catalog of the elective modules. Changes are updated in TUMonline

No.	Module name	Teaching form SWS	Sem	SWS	Credits	Exam-art	Exam duration	Weighting factor	Language of instruction
WZ3027	Research internship (at least 4 weeks)	P	5.-6.	7	5	Report		-	German or English
WZ1676	Sustainable Land Use and Nutrition	V	5.-6.	4	5	Written exam+ presentation (SL)	60	-	english
WZ5444	Residues in food	V3	5.-6.	3	5	Written exam	60	-	german
WZ3061	Applied Food Law	V	5.-6.	4	5	oral examination	20	-	english
WZ5142	Technology of the Milk and Dairy products	V3+V1	5.-6.	4	5	Written exam	120	-	german
WZ5051	Enzyme technology	V	5.-6.	2	3	Written exam	60	-	german
CH0659	Introduction to biotechnology	V	5.-6.	2	3	Written exam	90	-	german
WZ5039	Molecular Biotechnology	V	5.-6.	2	3	Written exam	90	-	german
WZ2048	Introduction to the Biology and diagnostics of human pathogenic Bacteria	V	5.-6.	2	3	Written exam	60	-	german
WZ5133	Sensory Analysis of the Food	V	5.-6.	2	3	Written exam	60	-	german
WZ3120	Clinical nutrition	Ü	5.-6.	1	3	oral examination	30	-	german
WZ2457	Neurobiology	V	5.-6.	2	3	Written exam	100	-	german
ME511	Pharmacology and Toxicology for scientists	V	5.-6.	2	3	Written exam	60	-	german

SP011011	Health Science	V	5.-6.	4	6	Written exam	120	-	german
SG160036	Health behavior and prevention	V	5.-6.	5	6	Written exam	90	-	german
	Total			**46**	**61**				

Explanations:
Sem. = semester; SWS = semester hours per week; V = lecture; S = seminar; Ü = exercise;
P = Internship;

Examination achievements in the field of nutritional science acquired at another university as part of a bachelor's degree program (e.g. semester abroad) can also be credited and included in **the** bachelor's examination as elective achievements in **the section Elective Modules (5th - 6th semester) - subject-specific Part 2 according to the appendix, if there** is no corresponding module in the module catalog of Technische Universität München, but the other requirements correspond to those of the bachelor's degree program Life Sciences Nutritional Science. The Examination Board Nutritional Science decides on the recognition.