

- Unofficial consolidated reading version -

**Course-Specific Examination and Study Regulations
for the Master's Degree Course
Ship Technology and Ocean Engineering
at the University of Rostock**

of 05 July 2019

On the basis of § 2(1) in connection with § 38(1) of the *Landeshochschulgesetz* (hereinafter State Higher Education Act) in the version announced on 25 January 2011 (GVOBl. M-V p. 18), which was last amended by Article 3 of the Act of 11 July 2019 (GVOBl. M-V p. 550, 557), and the *Rahmenprüfungsordnung* (hereinafter General Examination Regulations) for bachelor's and master's degree courses at the University of Rostock of 09 July 2012 (Mittl.bl. BM M-V 2012 p. 740), which was last amended by the Second Amending Statutes of the General Examination Regulations for bachelor's and master's degree courses of 12 June 2017 (Official Notices of the University of Rostock No. 18/2017), the University of Rostock has issued the following Course-Specific Examination and Study Regulations for the master's degree course Ship Technology and Ocean Engineering as statutes:

Sources: Official Notices of the University of Rostock No. 32/2019 of 15.07.2019

Amendments:

1. §§ 2, 6-8, 10, 12, 13, 17 and 18 as well as Appendices from 1 to 3 amended by the First Amending Statutes of the Course-Specific Examination and Study Regulations for the Master's Degree Course Ship Technology and Ocean Engineering at the University of Rostock (Official Notices of the University of Rostock No. 13/2022 of 06.04.2022)

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reading version

I. General Provisions

§ 1 Scope of Application

(1) These Regulations apply to objectives, content, procedures and course-specific regulations for completing the consecutive research-focused master's Ship Technology and Ocean Engineering at the University of Rostock based on the General Examination Regulations for the bachelor's and master's courses at the University of Rostock (General Examination Regulations (Bachelor/Master)).

(2) For the following modules, which can be studied as part of the compulsory elective area, according to § 7(3) of the General Examination Regulations (Bachelor/Master), the prerequisites, examination requirements, examination period and regulations regarding the form, duration and scope of the module examination apply as they are set down in the examination regulations of the respective degree course:

- Grundlagen mariner Stoffkreisläufe („Fundamentals of Marine Matter Cycles“) (M. Sc. Marine Biology).

(3) For the language modules that can be studied within the framework of the compulsory elective area, the examination regulations for the courses offered by the Language Centre of the University of Rostock including the University Foreign Language Certificate UNLcert® apply.

§ 2 Admission Requirements

(1) According to § 3 of the General Examination Regulations (Bachelor/Master), admission to the master's degree course Ship Technology and Ocean Engineering requires the applicant to have a first university degree or an equivalent degree from a vocational college and the following additional admission requirements:

1. According to § 3(2) of the General Examination Regulations (Bachelor/Master), German language skills must be proven at the level C1 of the Common European Framework of Reference for Languages.
2. Proof of a first degree in Ship Technology and Ocean Engineering, Mechanical Engineering, Traffic Engineering, Civil Engineering or a related scientific study field with at least 180 credit points or another equivalent degree is required.
3. Proof of having acquired in-depth knowledge in the following subject areas must be provided:
 - at least 18 credit points in Technical Mechanics,
 - at least 18 credit points in Mathematics,
 - at least six credit points in Fluid Mechanics/Hydromechanics,
 - at least six credit points in basics of Ship Technology und
 - at least six credit points in Measurement and Control Technology.A maximum of 12 credit points can be made up for during the first year.

(2) Access to the master's degree course Ship Technology and Ocean Engineering can, if there are no admission restrictions, only be refused if a successful completion of the master's course is not to be expected. It is assumed that a successful completion of the master's degree course is not to be expected if

1. one of the criteria under sub-section (1) numbers 1 to 3 is not met or
2. the first degree course was not completed with at least the mark 3,0 or, in the case of another marking system, with a comparable mark,

and the applicant has not provided any further evidence of the subject-specific and course-specific qualifications from which a positive prognosis of success can be deduced when considering the overall picture. The examination board may decide to invite the applicant to an interview to discuss the application. Admission can also be granted

subject to conditions, if the course has admission restrictions in accordance with § 4 of the *Hochschulzulassungsgesetz* (University Admission Act).

II. Degree Course, Progression of Studies and Organisation of Studies

§ 3

Degree Course Objectives

- (1) Upon successful completion of the master's degree in Ship Technology and Ocean Engineering, students are awarded the university degree Master of Science (M.Sc.).
- (2) Building on the bachelor's degree in mechanical engineering, students in the master's degree course in Ship Technology and Ocean Engineering acquire the ability to solve practical problems using the methods of research and science, taking into account the relevant technological, economic, ecological and social effects within a reasonable period of time. In doing so, they acquire the ability to present the results of scientific work precisely and comprehensibly in oral and written form, but also to critically question statements on the subject and to confidently represent their own point of view in front of colleagues and laypersons. At the same time, they are able to work together in an interdisciplinary team, so that they can grasp foreign problems and select goal-oriented scientific approaches to solving them. Graduates of the master's degree course are able to successfully pursue a scientific activity with the goal of a doctorate.

§ 4

Double Degree

- (1) The University of Rostock and the University of Liège (Belgium) have agreed on a study program on the award of a so-called double degree. For the simultaneous acquisition of the double degree, the students must fulfill the requirements as they result from the valid version of the double degree agreement of the two universities. The Dean of Studies and the Subject Coordinator for the Faculty of Mechanical and Marine Technologies are available for detailed information. In addition, the following regulations and the corresponding examination and study plan in Appendix 1 apply.
- (2) After passing the final examination, the Faculty of Mechanical Engineering and Marine Technologies of the University of Rostock awards the university degree Master of Science (M. Sc.), the University of Liège also awards the university degree Master of Science (M. Sc.). The two university degrees can be used separately. If both degrees are to be used together, they must be connected by a slash. This also applies to the abbreviated form.
- (3) In compliance with the provisions of the examination regulations of the partners, the students are issued with a certificate confirming the successful completion of the final examination, a certificate confirming the award of the academic degree and an English-language Diploma Supplement. The certificate, the diploma and the diploma supplement of the partners are to be combined in such a way that it is clear that it is about the assessment and the completion of only one study program. The issuance should normally take place at the University of Liège.

§ 5

Start of Studies, Course Organisation, Standard Length of Study

- (1) The master's degree course Ship Technology and Ocean Engineering can be started in the summer or winter semester. Enrolments are made on the dates set annually by the University of Rostock's administration. The application is usually made online via the university portal or another portal mentioned there. It is recommended that students start in the winter semester. Students who start in the summer semester should consult the Departmental

Advisory Service for developing a specific course schedule due to the limited options in the compulsory elective area.

(2) The master's degree course Ship Technology and Ocean Engineering is offered in German. Individual modules including their module exams are offered in English language. Details are given in the respective module description. The range of modules for the Master's course Ship Technology and Ocean Engineering is designed in such a way that the entire degree course can be completed exclusively in German language, although not all elective modules can then be chosen.

(3) The standard length of study within which the degree course is to be completed is four semesters.

(4) The Master's degree course is divided into compulsory and compulsory elective modules. In the compulsory area, six of modules totalling 72 credit points must be completed. In the "Compulsory elective area Ship Technology and Ocean Engineering", modules totalling 30 credit points must be completed, in the "Technical compulsory elective area", modules totalling 12 credit points must be completed and in the "Non-Technical compulsory elective area", modules totalling six credit points must be completed. In the case of compulsory modules, 30 credit points are allocated to the final examination. In order to pass the master's examination, a total of at least 120 credit points must be earned.

(5) There are three compulsory elective areas:

1. The "Compulsory elective area Ship Technology and Ocean Engineering" serves to acquire key qualifications and competencies in ship technology and ocean engineering beyond the specialist competencies acquired in the compulsory subjects. The educational objective of the compulsory elective area is the in-depth qualification for a research-related professional activity in the fields of ship structural mechanics, ship theory and marine technology. The students are given the opportunity to develop a profile specifically tailored to their future occupational field by means of an individual combination of methodologically and thematically oriented modules. They have acquired a broad knowledge including specific knowledge in the above three areas and analytical methods on the basis of which they can describe, analyze and explain interrelationships as a whole, as well as taking into account the interconnections of these areas.
2. The "Technical compulsory elective area" serves to acquire key qualifications and skills in the technical subjects related to ship technology and ocean engineering. The technical compulsory elective area enables students to pursue their individual inclinations and interests and to take into account the specific requirements of their future field of activity.
3. The "Non-Technical compulsory elective area" serves to acquire qualifications in the various interdisciplinary subjects, enabling graduates to realize the planning, development and production of ship-engineering products and processes through the systematic application of engineering methods with consideration of social, ecological and ethical findings and to communicate at the international level.

(6) In addition to the compulsory elective modules listed in Appendix 1, additional modules for the compulsory elective areas may be offered. These will be announced in good time before the start of the semester by study office in a form typically used by the University.

(7) Participation in individual modules of this degree course is dependent on proof of certain previous knowledge or skills. Details are given in the respective module descriptions.

(8) An appropriate time distribution of the modules to the individual semesters, which in particular enables the standard length of study to be adhered to, can be found in the examination and course schedule attached as Appendix 1. The examination and course schedule makes up the foundation of the respective semester course schedules, which is made available to the students in a form typically used by the University. The chronological order and the coordination of the content of the courses ensure that the students can achieve the respective study objectives. There are sufficient possibilities for students to tailor the course to their individual interests.

(9) Instead of the compulsory elective modules expressly offered for this degree course, further modules from other degree courses at the University of Rostock or other universities can be chosen, taking into account the qualification goals of the respective compulsory elective area in consultation with the Departmental Advisory Service and the corresponding responsible module teachers. The examination board decides on recognition in individual cases. The decision of the examination board shall be taken at the request of the student before the beginning of the semester in which the module to be recognised is to be taken. The attendance of such modules at the University of Rostock requires that they are not modules of a degree course with admission restrictions, unless a teaching export is stipulated by laws ruling the capacities of classes and sufficient study places are available. The prerequisites, examination requirements, examination periods and regulations regarding the form, duration and scope of the module examination apply as they are set down in the examination regulations of the respective degree course.

(10) Detailed module descriptions are published in a form typically used by the University.

§ 6

Individual Part-Time Studies

(1) In accordance with § 29(7) sentence 1 of the Higher Education Act and the following paragraphs, the student may declare to the examination board, no later than two weeks before the beginning of a semester, that s/he will only be able to spend approximately half of the working time planned for his/her studies in the following two semesters. In the request, details must be provided of the required modules or partial modules that are not going to be attended and which later semesters are to be used to make up the modules or partial modules that will be missed. If the examination board approves the request, it may require different modules or partial modules to be retaken other than those included in the request, especially if this is necessary to ensure that the degree course is completed properly. In hardship cases, the request may also be submitted at a later date.

(2) The request must be addressed to the examination board and submitted to the study office. If the decision differs from the request, the student must be heard beforehand. The request can be withdrawn up to two months after the beginning of the semester.

(3) In the case of sub-section (1), a semester is not counted towards the standard length of study and is therefore not taken into account in the calculation of the deadlines specified in §§ 10 and 17 of the General Examination Regulations (Bachelor/Master). During part-time studies, examinations other than those indicated in the decision of the examination board are not permitted; working on another degree course during this period is not permitted. Otherwise, the rights and obligations of the students concerned shall remain unaffected.

(4) Each student may avail him/herself of the provision under sub-section (1) a maximum of two times.

(5) If the degree course is subject to admission restrictions, the examination board may limit the number of part-time students per semester, but not to less than 5% of the students in the semester. If the demand exceeds this number, the examination board will decide on the students who will be permitted to complete their studies part-time, taking into account the importance of the reasons put forward by the students.

§ 7

Forms of Teaching and Learning

In addition to the course types listed in § 6a(1) of the General Examination Regulations (Bachelor/Master), the following additional course types are used:

- *Student Research Project*

Within the framework of a student research project, students work independently on scientific tasks and present them in written and oral form, which serves as preparation for the requirements of the master's dissertation.

- *Project course*

In the project course, students work on a project topic in individual or group work under the supervision of a lecturer.

(2) Excursions can take place as part of all lectures in the degree course. Participation is recommended. As a rule, the costs cannot be borne by the University of Rostock.

§ 8 Compulsory Attendance

If it is specified in the module descriptions, according to § 6b of the General Examination Regulations (Bachelor/Master), students must regularly participate in exercises and practical courses as a prerequisite for examinations.

§ 9 Admission to Courses

The admission limit for courses in compulsory, compulsory elective modules is the size of the course as specified in the *Kapazitätsordnung* (Capacity Ordinance); the limited number of laboratory places may also limit admission to courses. If more students register for lectures than there are places available, the examination board will examine whether the excess number of students can be reduced by other or additional courses. If it is not possible to reduce the excess number of students, the person responsible for the course shall make the selection from among those students who are enrolled in a degree course in which the course is planned in a compulsory or compulsory elective module, who have registered on time and who have fulfilled the prerequisites for participation in the module description, in the following order:

1. First, students are considered who did not pass the corresponding examination and therefore have to attend the course again.
2. In all other cases, the allocation of free places will be by random selection.

The examination board makes decisions regarding exceptions.

§ 10 Periods of Study Abroad

The master's course Ship Technology and Ocean Engineering offers students the opportunity to spend a semester at a foreign university preferred in the third semester as an alternative to the examination and course schedule. The period of stay abroad must be prepared in good time. For this purpose, the student chooses a thematic focus and usually contacts the "ERASMUS+ Departmental Coordinator" or "Erasmus+ coordinator of the Faculty of Mechanical Engineering and Marine Technology" and additionally the Rostock International House by the middle of the first semester. Erasmus+ coordinator arranges contact with its research partners and helps with the organisation of the semester abroad. A list of research partners is maintained. Competences acquired at the study location abroad are recognised, provided that there are no significant differences from the competences to be acquired within the framework of the master's course Ship Technology and Ocean Engineering. In order to ensure recognition, the students and the "ERASMUS+ Departmental Coordinator" or "Erasmus+ coordinator of the Faculty of Mechanical Engineering and Marine Technology" shall conclude a Teaching and Learning Agreement/a Learning

Agreement in accordance with § 5(3) of the General Examination Regulations (Bachelor/Master) before commencing the stay abroad.

§ 11 Organisation of Studying and Teaching

- (1) At the beginning of each semester, a schedule of dates for the entire semester is posted on a notice board. It includes: the lecture times, the examination periods, the non-teaching periods, and the start of the next semester.
- (2) On the basis of the examination and course schedule (Appendix 1), the study office shall draw up a semester study plan for each cohort and semester in consultation with the responsible module teachers. It contains information on the subjects taught, the teaching staff, the number of hours broken down according to the different types of tuition, and the times in which the lectures are taught.
- (3) Lectures outside of the semester study plan are planned by the lecturers themselves and in agreement with the study office. If necessary, they are supported by the administrative organisation of the Faculty of Mechanical Engineering and Marine Technologies.
- (4) The exchange or rescheduling of courses in justified exceptional cases is organised by the teaching staff independently in consultation with the study office.
- (5) All special information passed on to students by the lecturers on the organisation of teaching must be communicated in advance to the study office. Special information means data and facts that deviate from the specifications of the study organisation.

III. Examinations

§ 12 Examination Structure and Examinations

- (1) The compilation of the modules to be taken, the type of preliminary assessed work for examinations, the type, duration and scope of the module examinations, the regular examination date and the credit points to be attained are defined in the examination and course schedule (Appendix 1). The final examination (dissertation and colloquium) according to §15 is part of the master's examination.
- (2) An examination may also be conducted in whole or in part by means of a multiple-choice answer procedure ("multiple-choice examination"). An examination is considered a multiple-choice examination if the student's minimum performance required to pass the examination can only be achieved by marking the correct or incorrect answers. The examiner formulates the questions and determines how the questions are to be weighted and which answers are recognised as correct. The examination questions must be clearly understandable, clearly answerable and suitable for unambiguously establishing the student's required level of knowledge and skills. Before determining the examination results, the responsible module teacher checks whether the examination tasks meet these requirements. If this check shows that individual examination tasks are incorrect, these are not to be taken into account when marking the examinations. The number of tasks set is reduced accordingly; the mark is based on the reduced number. The reduction in the number of examination tasks must not be to the detriment of the students. The examination is passed if
 - a) at least 60% of the maximum number of possible points have been achieved (absolute pass mark) or

- b) at least 40 % of the maximum number of possible points have been achieved and the number of points achieved is no more than 22 % below the average examination performance of students who took part in the examination for the first time (relative pass mark). In the case of resit examinations, the relative pass mark determined for the first examination applies.

If the student has achieved the minimum number of points required to pass the examination according to the criteria above, the mark shall be determined as follows:

- "outstanding" (1.0), at least 85 per cent,
- "outstanding" (1.3), at least 75 per cent but less than 85 per cent,
- "good" (1.7), at least 67 per cent but less than 75 per cent,
- "good" (2.0), at least 59 per cent but less than 67 per cent,
- "good" (2.3), at least 50 per cent but less than 59 per cent,
- "satisfactory" (2.7), at least 42 per cent but less than 50 per cent,
- "satisfactory" (3.0), at least 34 per cent but less than 42 per cent,
- "satisfactory" (3.3), at least 25 per cent but less than 34 per cent,
- "sufficient" (3.7), at least 12 per cent but less than 25 per cent,
- "sufficient" (4.0), none or less than 12 per cent

of the points beyond the minimum number of points have been attained.

If the written examination consists of both a multiple-choice exam and other tasks, the multiple-choice exam will be conducted and evaluated according to the conditions listed above. The other tasks will be evaluated in accordance with the usual procedure. Two partial marks are determined. A failed examination section is included in the overall assessment with the grade "insufficient" (5.0). The overall mark is calculated as the weighted arithmetic mean of the two partial marks. The weighting is based on the proportion of the sections in the written examination. This is determined by the maximum percentage of points that can be achieved in the various parts of the examination. In all other respects, § 13(4) of the General Examination Regulations (Bachelor/Master) applies accordingly to the mark calculation.

(3) A written exam can also be carried out computer-based as an e-examination. In addition to § 12(1a lit. d) of the General Examination Regulations (Bachelor/Master), the following applies: E-examinations are usually prepared by two examiners. In particular, they can provide for the processing of free-text tasks, cloze texts or assignment tasks as well as a multiple-choice examination in compliance with §12(2). The processing of the examination tasks by the students as well as the automatic or automated evaluation takes place on electronic devices. The e-examination is to be conducted in the presence of an invigilator, who will prepare a report on the course of the examination. This must contain at least the names of the invigilators, the students taking part in the examination, the start and end of the examination and any special incidents. It must be ensured that the electronic data can be clearly identified and unmistakably and permanently assigned to the students. Students must be given the opportunity to inspect the computer-based examination and the results they have achieved.

(4) In a module, preliminary assessed work for examinations can be set according to § 7(2) of the General Examination Regulations (Bachelor/Master). Preliminary assessed work for examinations can include: coursework essays/homework, reports/documentations, test/evidence protocols, presentations, compulsory attendance according to § 8, passing of practical tests and the successful completion of computer exercises. In addition, preliminary assessed work for examinations may take the following forms:

- *Assessed exercises*

Assessed exercises is a written elaboration of the solution to a given problem. It is used to test the level of achievement of students. Assessed exercises must be submitted after a specified deadline.

- *Interim written exam*

Interim written exams are written reports on the solution of given tasks. It is used to test the level of achievement of students even during the lecture period. Interim written exams have to be completed under the supervision of the teacher in a specified place.

- Exercises

The solving of exercises serves to test the performance of the students during the lecture period and is usually done without supervision.

The concrete preliminary assessed work for examinations can be found in the respective module description and the examination and course schedule (Appendix 1). If there is a choice among several kinds of preliminary assessed work for examinations, the announcement of the work to be done is to be made in the second week of the lecture at the latest.

§ 13

Examinations and Examination Periods

- (1) The module examinations during the degree course shall be taken during the examination period. The examination period of a semester begins immediately after the lecture period and ends with the end of the semester.
- (2) Notwithstanding sub-section (1), the module examinations during the course of studies may be taken in the form of presentations, reports and coursework essays as part of the course, provided that the students are informed of the type of examination applicable to them, its scope and the respective deadline for submission no later than in the first week of lectures.
- (3) By agreement between students and examiners and in consultation with the examination board, examinations may also be held at other times, subject to the deadlines and registration modalities specified in the General Examination Regulations (Bachelor/Master). In this case, the study office must be informed in a timely manner.
- (4) The declaration of withdrawal of the registration for module examinations must be made via the web portal by the end of the registration period according to § 9(3) of the General Examination Regulations (Bachelor/Master), after which it must be received in writing to the study office.
- (5) In the case of the last examination attempt, the examiner decides whether an oral examination should be held in deviation from the examination form specified in the module description. This selection then applies to all students of a semester.
- (6) If a module description is changed, resit examinations shall be held in accordance with the module description in the version that applied to the examination to be resat.

§ 14

Admission to Final Examination

- (1) Admission to the final examination is granted to those who meet the following additional admission requirements in accordance with § 25 of the General Examination Regulations (Bachelor/Master):
 - the acquisition of at least 84 credit points in this degree course can be proven,
 - the module „Studienarbeit Schiffs- und Meerestechnik“ („Student Research Project Ship and Ocean Engineering“) have been successfully completed and
 - the participation in two excursions can be proven.
- (2) The students shall apply in writing to the study office for admission to the final examination. The application must be submitted at least two weeks before the beginning of the semester in which the master's dissertation is to be written.

§ 15 Final Examination

- (1) The final examination is completed in the module „Masterarbeit Schiffs- und Meerestechnik“ („Master Thesis Ship and Ocean Engineering“). It consists of the written dissertation (master's dissertation) and the colloquium.
- (2) The choice of topics for the master's dissertation is made on the basis of offers from academics of the Faculty of Mechanical Engineering and Marine Technologies and other faculties of the University of Rostock, other scientific institutions outside the University or according to the students' own suggestions, always provided that a supervisor can be found for the dissertation according to § 27 of the General Examination Regulations (Bachelor/Master).
- (3) The concrete task of the master's dissertation is developed by the students together with their supervisor. In this process, the supervisor ensures that the task meets the requirements for such work.
- (4) The master's dissertation is written in the fourth semester. The time limit for writing up the dissertation is 20 weeks. In individual cases, the examination board may, upon justified request, extend the writing-up period by a maximum of eight weeks. The master's dissertation must be submitted by the deadline to the study office.
- (5) The master's dissertation must be completed according to the University of Rostock's rules to secure good scientific practice and avoid academic misconduct.
- (6) The colloquium consists of an approximately 20-minute presentation by the student and an approximately 20-minute discussion.
- (7) 30 credit points are awarded for the successful completion of the module „Masterarbeit Schiffs- und Meerestechnik“ („Master Thesis Ship and Ocean Engineering“). The associated workload of 900 hours consists of 750 hours for the master's dissertation and 150 hours for the colloquium.

§ 16 Evaluation of Examinations, Mark Calculation

The examination and course schedule (Annex 1) shows whether a weighting of the individual marked coursework that may deviate from § 13(4) of the General Examination Regulations (Bachelor/Master) is applied to modules with two marked pieces of coursework and which modules are marked and which are assessed as "passed" or "failed". All marked modules are taken into account in accordance with § 13(5) of the General Examination Regulations (Bachelor/Master) when forming the final mark.

§ 17 Examination Board and Examination Organisation

- (1) The examination board has five members, including three members from the group of professorial staff, one member from the group of academic staff and one student member. The members' term of office is two years with the exception of the student members, whose term of office is one year.
- (2) The planning and organisation of the examinations is carried out by the study office in consultation with the examination board. In particular, the registration for the module examinations takes place via the Online-Portal. The study office draws up examination schedules and makes them public.

§ 18 (omitted)

§ 19 Diploma Supplement

The Diploma Supplement (German and English) contains the information specific to the degree course as shown in Appendices 2 and 3.

IV. Final Provisions

§ 20 Transitional Provision

(1) These Course-Specific Examination and Study Regulations apply for the first time to students who were enrolled at the University of Rostock for the master's degree course Ship Technology and Ocean Engineering in the winter semester 2019/2020.

(2) For students who were enrolled in the master's degree course Ship Technology and Ocean Engineering before the winter semester 2019/2020 started, the provisions of the Course-Specific Examination and Study Regulations of 29.03.2017, continue to apply, but no later than 30.09.2022.. However, upon request to the examination board, they can be examined according to the provisions of the General Examination Regulations (Bachelor/Master) and these Course-Specific Examination and Study Regulations. The request cannot be revoked. Examinations and coursework that have already been completed are adopted. After submitting the request, the changes in the module descriptions apply to the students who still have to take the module examinations affected by the change. Resit examinations, however, shall be held in accordance with the module description in the version that applied to the examination to be resat.

§ 21 Entry into Force

These Regulations enter into force on the day after their publication in the University of Rostock's official bulletin. They are valid for the first time for the winter semester 2019/2020.

Drawn up following the decision made by the Academic Senate of the University of Rostock of 03 July 2019 and the Rector's approval.

Rostock, 05 July 2019

Rector
of the University of Rostock
University Professor Dr. Wolfgang Schareck






Start of study in winter semester

Sem.	LP	3	6	9	12	15	18	21	24	27	30	33	36
1	module name	Entwerfen von Schiffen (Ship Design Methods)		Theorie und Entwerfen schwimmender und gegründeter Offshore-Systeme (Theory and Design of Floating and Founded Offshore Systems)		Grundlagen der Berechnung maritimer Strukturen (Fundamentals of the Analysis of Marine Structures)		Compulsory elective area Ship Technology and Ocean Engineering		Technical compulsory elective area			
2	module name	Dynamik von Schiffen und Offshore Strukturen (Dynamics of Ships and Ocean Structures)											
3	module name	Studienarbeit Schiffs- und Meerestechnik (Student Research Project Ship and Ocean Engineering)								Non-Technical compulsory elective area			
4	module name	Masterarbeit Schiffs- und Meerestechnik (Master Thesis Ship and Ocean Engineering)											

Start of study in summer semester

Sem.	LP	3	6	9	12	15	18	21	24	27	30	33	36				
1	module name	Dynamik von Schiffen und Offshore Strukturen (Dynamics of Ships and Ocean Structures)		Compulsory elective area Ship Technology and Ocean Engineering						Technical compulsory elective area							
2	module name	Entwerfen von Schiffen (Ship Design Methods)												Theorie und Entwerfen schwimmender und gegründeter Offshore-Systeme (Theory and Design of Floating and Founded Offshore Systems)		Grundlagen der Berechnung maritimer Strukturen (Fundamentals of the Analysis of Marine Structures)	
3	module name	Studienarbeit Schiffs- und Meerestechnik (Student Research Project Ship and Ocean Engineering)												Non-Technical compulsory elective area			
4	module name	Masterarbeit Schiffs- und Meerestechnik (Master Thesis Ship and Ocean Engineering)															

Legende

 Compulsory modules	E - Excursion	S - Seminar	A - Dissertation	pP - Practical Examination	LP - Credit Points
 Compulsory elective area	IL - Integrated course	SPÜ - Teaching practice	B/D - Reports/documentation	PrA - Project work	min - Minutes
 Ship Technology and Ocean Engineering	Ko - Consultation	Tu - Tutorial	HA - Coursework Essay	Prot - Report	RPT - Regular examination date
 Technical compulsory elective area	P - Practical course	Ü - Practical	K - Written Examination	R/P - Presentation	Std - Hours
 Non-Technical compulsory elective area	Pr - Project course	V - Lecture	Koll - Colloquium	SL - Coursework	SWS - Semester hours per week
	MC - Multiple-choice examination	PL - Examinations	mP - Oral Examination	T - Testat	Wo - Weeks

Compulsory modules

module name	module number	Types of Teaching/SWS	module completion		Credit Points	semester	RPT		graded/ ungraded
			preliminary assessed work	type/duration/scope			WS	SoSe	
Entwerfen von Schiffen (Ship Design Methods)	1550840	V/2; Ü/2	Exercises (2 subtasks) oder HA (max. 20 pages, 6 Wo)	mP (30 min)	6	winter semester	1	2	graded
Grundlagen der Berechnung maritimer Strukturen (Fundamentals of the Analysis of Marine Structures)	1551170	V/2; Ü/2	3 assessed exercises	mP (30 min)	6	winter semester	1	2	graded
Theorie und Entwerfen schwimmender und gegründeter Offshore-Systeme (Theory and Design of Floating and Founded Offshore Systems)	1551080	V/2; Ü/1; P/1	B/D to the practical test (15 pages)	mP (20 min)	6	winter semester	1	2	graded
Dynamik von Schiffen und Offshore Strukturen (Dynamics of Ships and Ocean Structures)	1551160	V/2; Ü/2	reports (max. 20 pages, 2 Wo)	mP (30 min)	6	summer semester	2	1	graded
Studienarbeit Schiffs- und Meerestechnik (Student Research Project Ship and Ocean Engineering)	1551790	Ko/0,5	none	1. PL: B/D (450 Std, 40-70 pages) (75%); 2. PL: Koll (30 min) - 15 min presentation und 15 min disputation (25%)	18	each semester	3	3	graded
Masterarbeit Schiffs- und Meerestechnik (Master Thesis Ship and Ocean Engineering)	1551250		none	1. PL.: A (20 Wo, 60-100 pages) (66,6%); 2. PL.: Koll (40 min) - 20 min presentation and 20 min discussion (33,3%)	30	each semester	4	4	graded

Compulsory elective area Ship Technology and Ocean Engineering

Modules amounting to 30 LP must be selected from the following catalogue:

module name	module number	Types of Teaching/SWS	module completion		Credit Points	semester	RPT		graded/ ungraded
			preliminary assessed work	type/duration/scope			WS	SoSe	
Ausgewählte Kapitel der Berechnung maritimer Strukturen (Selected Topics of the Analysis of Marine Structures)	1551190	V/2; Ü/2	3 passed exercises	mP (30 min)	6	winter semester	3	2	graded
CFD für Schiffshydrodynamik (CFD for Ship Hydrodynamics)	1552180	V/2; Ü/2	none	1. PL: B/D (20-30 pages, 70 Std) 2. PL: mP (20 min)	6	winter semester	3	2	graded
Leckstabilität und Ketersicherheit (Safety of Ships under Damaged Conditions, in Waves)	1551230	V/2; Ü/2	3 recognized Exercises	mP (30 min)	6	winter semester	3	2	graded
Mathematische Modelle in der Schiffstheorie (Mathematical Models in Ship Theory)	1551360	V/2; Ü/2	passed assessed exercises	K (120 min) or mP (30 min)	6	winter semester	3	2	graded
Meeresforschungstechnik (Ocean Research Technology)	1552220	V/4; Ü/2	passed assessed exercise, Preparation of an evidence protocol (approx. 10 pages)	mP (45 min)	6	winter semester	3	2	graded

Numerische Strömungsmechanik und turbulente Strömungen (Numerical Fluid Mechanics and Turbulent Flows)	1551770	V/2; Ü/2	none	mP (30 min)	6	winter semester	3	2	graded
Rechnergestützte Entwicklungsmethoden in der Schiffs- und Meerestechnik (IT in Ship Design and Production)	1550940	V/2; Ü/1; Pr/1	B/D (15 pages)	mP (30 min)	6	winter semester	3	2	graded
Auslegung von Schiffs- und Offshorekonstruktionen (Dimensioning of Ship and Offshore Structures)	1551210	V/2; Ü/2	3 assessed exercises	mP (30 min)	6	summer semester	2	3	graded
Finite-Elemente-Methode zur Berechnung maritimer Strukturen (Finite Element Method for the Analysis of Marine Structures)	1551220	V/2; Ü/2	3 assessed exercises	mP (30 min)	6	summer semester	2	3	graded
Modellierung und Simulation der Turbulenz (Modeling and Simulation of Turbulence)	1550350	V/2; Ü/2	passed interim written exam	K (120 min) or mP (30 min)	6	summer semester	2	3	graded
Propellertheorie (Propeller Theory)	1550880	V/2; Ü/2	3 assessed exercises	mP (30 min)	6	summer semester	2	3	graded
Technologien zur Meeresenergienutzung (Technologies for Utilization of Marine Energies)	1552160	V/2; Ü/1; P/1	test protocol (approx. 15 pages) and presentation (20 min)	mP (30 min)	6	summer semester	2	3	graded
Theorie und Entwerfen von Unterwassersystemen (Theory and Design of Under Water Systems)	1552230	V/2; Ü/2	written homework (ca. 10 pages)	mP (20 min)	6	summer semester	2	3	graded
Widerstand und Propulsion (Resistance and Propulsion)	1550920	V/2; Ü/1; P/1	Exercises and/or test protocols (4 subtasks), HA (max. 35 pages, 3 Wo)	mP (30 min)	6	summer semester	2	3	graded

Technical compulsory elective area

Modules amounting to 12 LP are to be selected from the following catalogue or from the modules of the compulsory elective area Ship Technology and Ocean Engineering that have not yet been taken:

module name	module number	Types of Teaching/SWS	module completion		Credit Points	semester	RPT		graded/ ungraded
			preliminary assessed work	type/duration/scope			WS	SoSe	
Dynamik von Mehrkörpersystemen (Dynamics of Multibody Systems)	1551760	V/2; Ü/2	successful completion of computer exercises (3 tasks)	K (120 min) or mP (30 min)	6	winter semester	1	2	graded
Ideal biegsame meeresstechnische Systeme (Highly Flexible Systems in Ocean Engineering)	1552210	V/2; Ü/2	none	1. PL.: B/D (Belegarbeit approx. 20 pages); 2. PL.: mP (20 min)	6	winter semester	1	2	graded
Leichtbaukonstruktion (Lightweight Design)	1550220	V/2; Ü/2	none	K (60 min)	6	winter semester	1	2	graded

Schiffsfertigungstechnik - Betrieb von Werften (Ship Production - Operation of Shipyards)	1551060	V/2; Ü/2	none	K (60 min)	6	winter semester	1	2	graded
Betriebsfestigkeit (Structural Durability)	1550210	V/2; Ü/1	none	K (90 min) or mP (30 min)	6	summer semester	2	1	graded
Großmotoren für Schiffsanwendungen - Grundlagen und Zukunftstrends (Large Engines for Marine Applications - Fundamentals and Future Trends)	1551530	V/2; P/2	none	mP (30 min)	6	summer semester	2	1	graded
Robuste Regelung und Zustandsschätzung (Robust Control and State Estimation)	1552140	V/3; Ü/1; P/1	Passing of 3 practical tests, compulsory attendance in the practical courses	K (120 min)	6	summer semester	2	1	graded

Non-Technical compulsory elective area

Modules amounting to 6 LP are to be selected from the following catalogue or modules from the total offer of the University of Rostock have to be chosen:

module name	module number	Types of Teaching/SWS	module completion		Credit Points	semester	RPT	graded/ ungraded
			preliminary assessed work	type/duration/scope				
Einführung in die angewandte C++ Programmierung (Introduction to Applied Programming in C++)	1501120	V/2; S/2	none	HA (15 pages; 1 Wo)	6	winter semester	3	ungraded
Englisch Fachkommunikation Maschinenbau C1.1 GER*** (Professional English for Mechanical Engineering C1.1 CEFR)	9101420	Ü/4	*	K (90 min)	6	winter semester	3	ungraded
Gewerbliche Schutzrechte (Intellectual Property Rights)	1551720	V/2; Ü/2	3 assessed exercises	K (90 min)	6	winter semester	3	ungraded
Grundlagen mariner Stoffkreisläufe** (Fundamentals of Marine Matter Cycles)	2751010	V/3; Ü/1	none	K (60 min)	6	winter semester	3	ungraded
Englisch Fachkommunikation Ingenieurwissenschaften C1.2 GER*** (Professional English for Engineering C1.2 CEFR)	9101490	Ü/4	*	1. PL.: K (90-120 min); 2. PL.: mP (45 min)	6	each semester	3	ungraded
Maritime Logistik (Maritime Logistics)	1551580	V/2; Ü/2	none	K (90 min)	6	summer semester	3	ungraded
Numerik und Stochastik für Ingenieurwissenschaften (Numerical Analysis and Stochastics for Engineers)	2101060	V/4; Ü/2	Solving exercises or interim written exams (achieving at least 50% of the points in each of the areas of numerics and stochastics)	K (120 min)	6	summer semester	3	ungraded

- * Compulsory Attendance in Exercises. Preliminary assessed work may include: professional and study-related written papers and discussions, reading of subject-related literature, case studies, presentations. The exact examination requirements will be announced by the instructor in the second week of the semester at the latest. (The preliminary assessed work are based on the examination regulations of the Language Center).
- ** The current module version according to the valid examination regulations of the corresponding study degree course, according to § 1 (2) of the SPSO, applies.
- *** For the modules of the Language Center, the provisions from their respective examination regulations apply, according to §1 (3).

Start of study in winter semester

Sem.	LP	3	6	9	12	15	18	21	24	27	30	33	36
1	module name	obligatory stay at the University of Liège (Belgium), see Appendix 1 Cooperation Agreement											
2	module name												
3	module name	Team Project EMship	Compulsory elective area Double-Degree-Program with the University of Liège										
4	module name	Master Thesis Ship and Ocean Engineering											

Legende

Compulsory modules	E - Excursion	S - Seminar	A - Dissertation	pP - Practical Examination	LP - Credit Points
Compulsory module of the Double Degree Program with the University of Liège	IL - Integrated course	SPÜ - Teaching practice	B/D - Reports/documentation	PrA - Project work	min - Minutes
Wahlpflichtbereich Double-Degree-Programm an der Universität Liège	Ko - Consultation	Tu - Tutorial	HA - Coursework Essay	Prot - Report	RPT - Regular examination date
	P - Practical course	Ü - Practical	K - Written Examination	R/P - Presentation	Std - Hours
	Pr - Project course	V - Lecture	Koll - Colloquium	SL - Coursework	SWS - Semester hours per week
	MC - Multiple-choice examination	PL - Examinations	mP - Oral Examination	T - Testat	Wo - Weeks

Compulsory modules

module name	module number	Types of Teaching/SWS	module completion		Credit Points	semester	RPT	graded/ ungraded
			preliminary assessed work	type/duration/scope				
Masterarbeit Schiffs- und Meerestechnik (Master Thesis Ship and Ocean Engineering)	1551250		none	1. PL.: A (20 Wo, 60-100 pages) (66,6%); 2. PL.: Koll (40 min) - 20 min presentation and 20 min discussion (33,3%)	30	each semester	4	graded

Compulsory module of the Double Degree Program with the University of Liège

module name	module number	Types of Teaching/SWS	module completion		Credit Points	semester	RPT	graded/ ungraded
			preliminary assessed work	type/duration/scope				
Team Project EMship	1551490	Ko/0,5	none	B/D (20 pages)	6	each semester	3	graded

Compulsory elective area Double-Degree-Program with the University of Liège

Modules amounting to 24 LP must be selected from the following catalogue:

module name	module number	Types of Teaching/SWS	module completion		Credit Points	semester	RPT	graded/ ungraded
			preliminary assessed work	type/duration/scope				
Ausgewählte Kapitel der Berechnung maritimer Strukturen (Selected Topics of the Analysis of Marine Structures)	1551190	V/2; Ü/2	3 passed exercises	mP (30 min)	6	winter semester	3	graded
Leckstabilität und Kenersicherheit (Safety of Ships under Damaged Conditions, in Waves)	1551230	V/2; Ü/2	3 recognized Exercises	mP (30 min)	6	winter semester	3	graded
Mathematische Modelle in der Schiffstheorie (Mathematical Models in Ship Theory)	1551360	V/2; Ü/2	passed assessed exercises	K (120 min) or mP (30 min)	6	winter semester	3	graded
Meeresforschungstechnik (Ocean Research Technology)	1552220	V/4; Ü/2	passed assessed exercise, Preparation of an evidence protocol (approx. 10 pages)	mP (45 min)	6	winter semester	3	graded
Rechnergestützte Entwicklungsmethoden in der Schiffs- und Meerestechnik (IT in Ship Design and Production)	1550940	V/2; Ü/1; Pr/1	B/D (15 pages)	mP (30 min)	6	winter semester	3	graded
Theorie und Entwerfen schwimmender und gegründeter Offshore-Systeme (Theory and Design of Floating and Founded Offshore Systems)	1551080	V/2; Ü/1; P/1	B/D to the practical test (15 pages)	mP (20 min)	6	winter semester	3	graded



DIPLOMA SUPPLEMENT

This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgements, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

1. Information identifying the Holder of the Qualification

1.1 Family name/1.2 First name

XXX

1.3 Date of birth

XXX

1.4 Student ID number or code (if applicable)

XXX

2. Information identifying the Qualification

2.1 Name of qualification (full, abbreviated; in original language)

Master of Science – M.Sc.

Title conferred (full, abbreviated; in original language)

n. a.

2.2 Main field(s) of study for the qualification

Ship Technology and Ocean Engineering

2.3 Institution awarding the qualification (in original language)

Universität Rostock, Fakultät für Maschinenbau und Schiffstechnik, Germany

Status (type/control) (in original language)

University/State Institution

2.4 Institution administering studies (in original language)

see 2.3

Status (type/control) (in original language)

University/State Institution

2.5 Language(s) of instruction/examination

German, some modules in English

3. Information on the Level and Duration of the Qualification

3.1 Level of the qualification

Graduate / second degree (2 years), by research with thesis

3.2 Official length of programme in credits and/or years

Two years (120 Credit Points, workload 900 hours/semester)

3.3 Access requirement(s)

First academic degree (at least 180 Credit Points) in Mechanical Engineering, Ship Technology and Ocean Engineering or a related scientific study field, at least 18 credit points in the fields of Technical Mechanics, at least 18 credit points in the fields of Mathematics, at least 6 credit points in the fields of Fluid Mechanics/Hydromechanics, at least 6 credit points in the fields of basics of Ship Technology and at least 6 credit points in the fields of Measurement and Control Technology, good knowledge in German (at least level C1 of the Common European Framework of Reference for Languages or equivalent).

4. Information on the Programme completed and the Results obtained

4.1 Mode of study

Full time

4.2 Programme learning outcomes

The purpose of the M.Sc. program is to impart required technical knowledge, skills, and work experience of mechanical engineering in order to enable the graduates being capable of independent professional use of the attained knowledge and skills. The graduates are enabled to take over executive functions and management positions in industry as well as to work on scientific projects at industrial and university research institutions. They are able to work in multidisciplinary fields while taking economic and ecological criteria into account.

4.3 Programme details, individual credits gained and grades/marks obtained

See Transcript of Records and certificate of Examination for list of modules including grades and topic and grading of the master's thesis.

4.4 Grading system and, if available, grade distribution table

For general grading scheme see 8.6

4.5 Overall classification of the qualification (in original language)

For the Master's examination a final grade is calculated. The overall grade is calculated by averaging the grades of all modules. In this averaging process, the specific module grades are weighted with the corresponding Credit Points.

xxx (final grade)

xxx (ECTS-Grade)

5. Information on the Function of the Qualification

5.1 Access to further studies

Entitles for pursuing a doctorate

5.2 Access to regulated profession (if applicable)

n. a.

6. Additional Information

6.1 Additional information

The study and examination achievements of the completed Master's degree programme, taking into account the credit points acquired with the previous Bachelor's degree with a total of at least 300 credit points (ECTS), corresponds to qualification level 7 according to the German Qualifications Framework (DQR) analogous to that of a diploma degree programme.*

6.2 Further information sources

About the university: www.uni-rostock.de
About the studies: www.msf.uni-rostock.de/studium/masterstudiengaenge/schiffs-und-meerestechnik/
About national institutions see paragraph 8.8

As a university, the University of Rostock is authorised for the purposes of «system accreditation». An internal certification system is used by the university for most accreditation procedures. The master course Ship Technology and Ocean Engineering successfully underwent the process of internal accreditation.

For more information on the accreditation of the course of studies, see the web page of the internal accreditation of the University of Rostock: <https://www.hqe.uni-rostock.de/akkreditierungevaluation/akkreditierte-studiengaenge/liste-der-akkreditierten-studiengaenge/>

7. Certification

This Diploma Supplement refers to the following original documents:

- Degree award certificate issued on [Date]
- Diploma/Degree/Certificate awarded on [Date]
- Transcript of Records issued on [Date]

Rostock, [Date]

(Official Stamp/Seal)

Chairman Examination Committee

8. National Higher Education System

The information on the national higher education system on the following pages provides a context for the qualification and the type of higher education that awarded it.

* https://www.dqr.de/dqr/sharedocs/downloads/media/content/2021_dqr_liste_der_zugeordneten_qualifikationen_01082021.pdf

8. INFORMATION ON THE GERMAN HIGHER EDUCATION SYSTEM¹

8.1 Types of Institutions and Institutional Status

Higher education (HE) studies in Germany are offered at three types of Higher Education Institutions (HEI).²

- *Universitäten* (Universities) including various specialised institutions, offer the whole range of academic disciplines. In the German tradition, universities focus in particular on basic research so that advanced stages of study have mainly theoretical orientation and research-oriented components.

- *Fachhochschulen (FH)/Hochschulen für Angewandte Wissenschaften (HAW)* (Universities of Applied Sciences, UAS) concentrate their study programmes in engineering and other technical disciplines, business-related studies, social work, and design areas. The common mission of applied research and development implies an application-oriented focus of studies, which includes integrated and supervised work assignments in industry, enterprises or other relevant institutions.

- *Kunst- und Musikhochschulen* (Universities of Art/Music) offer studies for artistic careers in fine arts, performing arts and music; in such fields as directing, production, writing in theatre, film, and other media; and in a variety of design areas, architecture, media and communication.

Higher Education Institutions are either state or state-recognised institutions. In their operations, including the organisation of studies and the designation and award of degrees, they are both subject to higher education legislation.

8.2 Types of Programmes and Degrees Awarded

Studies in all three types of institutions have traditionally been offered in integrated "long" (one-tier) programmes leading to *Diplom-* or *Magister Artium* degrees or completed by a *Staatsprüfung* (State Examination).

Within the framework of the Bologna-Process one-tier study programmes are successively being replaced by a two-tier study system. Since 1998, two-tier degrees (Bachelor's and Master's) have been introduced in almost all study programmes. This change is designed to enlarge variety and flexibility for students in planning and pursuing educational objectives; it also enhances international compatibility of studies.

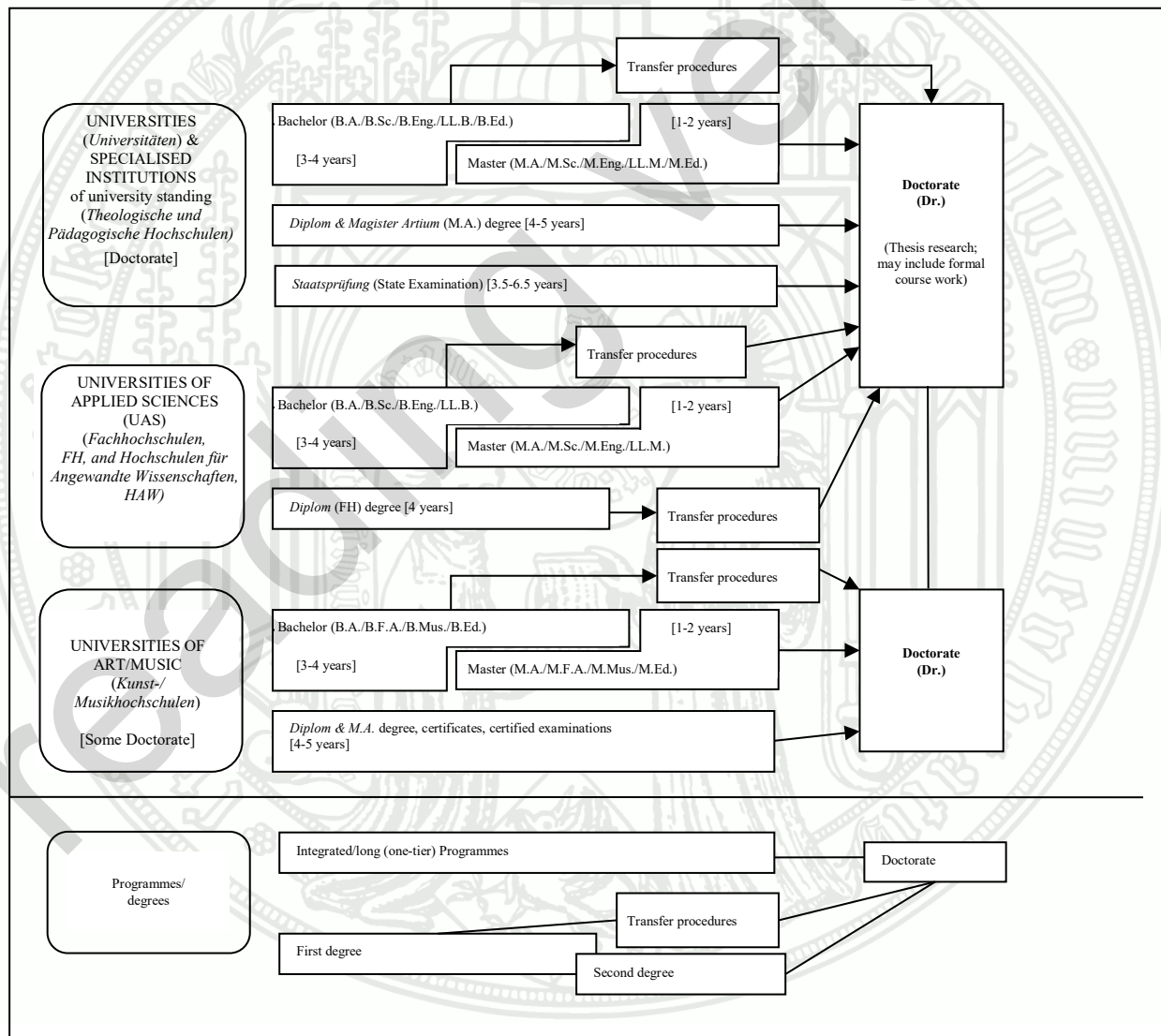
The German Qualifications Framework for Higher Education Qualifications (HQR)³ describes the qualification levels as well as the resulting qualifications and competences of the graduates. The three levels of the HQR correspond to the levels 6, 7 and 8 of the German Qualifications Framework for Lifelong Learning⁴ and the European Qualifications Framework for Lifelong Learning⁵.

For details cf. Sec. 8.4.1, 8.4.2, and 8.4.3 respectively. Table 1 provides a synoptic summary.

8.3 Approval/Accreditation of Programmes and Degrees

To ensure quality and comparability of qualifications, the organisation of studies and general degree requirements have to conform to principles and regulations established by the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany (KMK).⁶ In 1999, a system of accreditation for Bachelor's and Master's programmes has become operational. All new programmes have to be accredited under this scheme; after a successful accreditation they receive the seal of the Accreditation Council.⁷

Table 1: Institutions, Programmes and Degrees in German Higher Education



8.4 Organisation and Structure of Studies

The following programmes apply to all three types of institutions. Bachelor's and Master's study programmes may be studied consecutively, at various higher education institutions, at different types of higher education institutions and with phases of professional work between the first and the second qualification. The organisation of the study programmes makes use of modular components and of the European Credit Transfer and Accumulation System (ECTS) with 30 credits corresponding to one semester.

8.4.1 Bachelor

Bachelor's degree programmes lay the academic foundations, provide methodological competences and include skills related to the professional field. The Bachelor's degree is awarded after 3 to 4 years.

The Bachelor's degree programme includes a thesis requirement. Study programmes leading to the Bachelor's degree must be accredited according to the Interstate study accreditation treaty.⁸ First degree programmes (Bachelor) lead to Bachelor of Arts (B.A.), Bachelor of Science (B.Sc.), Bachelor of Engineering (B.Eng.), Bachelor of Laws (LL.B.), Bachelor of Fine Arts (B.F.A.), Bachelor of Music (B.Mus.) or Bachelor of Education (B.Ed.). The Bachelor's degree corresponds to level 6 of the German Qualifications Framework/ European Qualifications Framework.

8.4.2 Master

Master is the second degree after another 1 to 2 years. Master's programmes may be differentiated by the profile types "practice-oriented" and "research-oriented". Higher Education Institutions define the profile.

The Master's degree programme includes a thesis requirement. Study programmes leading to the Master's degree must be accredited according to the Interstate study accreditation treaty.⁹ Second degree programmes (Master) lead to Master of Arts (M.A.), Master of Science (M.Sc.), Master of Engineering (M.Eng.), Master of Laws (LL.M.), Master of Fine Arts (M.F.A.), Master of Music (M.Mus.) or Master of Education (M.Ed.). Master's programmes which are designed for continuing education may carry other designations (e.g. MBA). The Master's degree corresponds to level 7 of the German Qualifications Framework/ European Qualifications Framework.

8.4.3 Integrated "Long" Programmes (One-Tier): Diplom degrees, Magister Artium, Staatsprüfung

An integrated study programme is either mono-disciplinary (*Diplom* degrees, most programmes completed by a *Staatsprüfung*) or comprises a combination of either two major or one major and two minor fields (*Magister Artium*). The first stage (1.5 to 2 years) focuses on broad orientations and foundations of the field(s) of study. An Intermediate Examination (*Diplom-Vorprüfung* for *Diplom* degrees; *Zwischenprüfung* or credit requirements for the *Magister Artium*) is prerequisite to enter the second stage of advanced studies and specialisations. Degree requirements include submission of a thesis (up to 6 months duration) and comprehensive final written and oral examinations. Similar regulations apply to studies leading to a *Staatsprüfung*. The level of qualification is equivalent to the Master's level.

- Integrated studies at *Universitäten (U)* last 4 to 5 years (*Diplom* degree, *Magister Artium*) or 3.5 to 6.5 years (*Staatsprüfung*). The *Diplom* degree is awarded in engineering disciplines, the natural sciences as well as economics and business. In the humanities, the corresponding degree is usually the *Magister Artium* (M.A.). In the social sciences, the practice varies as a matter of institutional traditions. Studies preparing for the legal, medical and pharmaceutical professions are completed by a *Staatsprüfung*. This applies also to studies preparing for teaching professions of some *Länder*.

The three qualifications (*Diplom*, *Magister Artium* and *Staatsprüfung*) are academically equivalent and correspond to level 7 of the German Qualifications Framework/European Qualifications Framework.

They qualify to apply for admission to doctoral studies. Further prerequisites for admission may be defined by the Higher Education Institution, cf. Sec. 8.5.

- Integrated studies at *Fachhochschulen (FH)/Hochschulen für Angewandte Wissenschaften (HAW)* (Universities of Applied Sciences, UAS) last 4 years and lead to a *Diplom (FH)* degree which corresponds to level 6 of the German Qualifications Framework/European Qualifications Framework.

Qualified graduates of FH/HAW/UAS may apply for admission to doctoral studies at doctorate-granting institutions, cf. Sec. 8.5.

- Studies at *Kunst- und Musikhochschulen* (Universities of Art/Music etc.) are more diverse in their organisation, depending on the field and individual objectives. In addition to *Diplom/Magister* degrees, the integrated study programme awards include certificates and certified examinations for specialised areas and professional purposes.

8.5 Doctorate

Universities as well as specialised institutions of university standing, some of the FH/HAW/UAS and some Universities of Art/Music are doctorate-granting institutions. Formal prerequisite for admission to doctoral work is a qualified Master's degree (UAS and U), a *Magister* degree, a *Diplom*, a *Staatsprüfung*, or a foreign equivalent. Comparable degrees from universities of art and music can in exceptional cases (study programmes such as music theory, musicology, pedagogy of arts and music, media studies) also formally qualify for doctoral work. Particularly qualified holders of a Bachelor's degree or a *Diplom (FH)* degree may also be admitted to doctoral studies without acquisition of a further degree by means of a procedure to determine their aptitude. The universities respectively the doctorate-granting institutions regulate entry to a doctorate as well as the structure of the procedure to determine aptitude. Admission further requires the acceptance of the Dissertation research project by a professor as a supervisor.

The doctoral degree corresponds to level 8 of the German Qualifications Framework/ European Qualifications Framework.

8.6 Grading Scheme

The grading scheme in Germany usually comprises five levels (with numerical equivalents; intermediate grades may be given): "Sehr Gut" (1) = Very Good; "Gut" (2) = Good; "Befriedigend" (3) = Satisfactory; "Ausreichend" (4) = Sufficient; "Nicht ausreichend" (5) = Non-Sufficient/Fail. The minimum passing grade is "Ausreichend" (4). Verbal designations of grades may vary in some cases and for doctoral degrees.

In addition, grade distribution tables as described in the ECTS Users' Guide are used to indicate the relative distribution of grades within a reference group.

8.7 Access to Higher Education

The General Higher Education Entrance Qualification (*Allgemeine Hochschulreife, Abitur*) after 12 to 13 years of schooling allows for admission to all higher educational studies. Specialised variants (*Fachgebundene Hochschulreife*) allow for admission at *Fachhochschulen (FH)/Hochschulen für Angewandte Wissenschaften (HAW)* (UAS), universities and equivalent higher education institutions, but only in particular disciplines. Access to study programmes at *Fachhochschulen (FH)/Hochschulen für Angewandte Wissenschaften (HAW)* (UAS) is also possible with a *Fachhochschulreife*, which can usually be acquired after 12 years of schooling. Admission to study programmes at Universities of Art/Music and comparable study programmes at other higher education institutions as well as admission to a study programme in sports may be based on other or additional evidence demonstrating individual aptitude.

Applicants with a qualification in vocational education and training but without a school-based higher education entrance qualification are entitled to a general higher education entrance qualification and thus to access to all study programmes, provided they have obtained advanced further training certificates in particular state-regulated vocational fields (e.g. *Meister/Meisterin im Handwerk, Industriemeister/in, Fachwirt/in (IHK), Betriebswirt/in (IHK) und (HWK), staatlich geprüfte/r Techniker/in, staatlich geprüfte/r Betriebswirt/in, staatlich geprüfte/r Gestalter/in, staatlich geprüfte/r Erzieher/in*). Vocationally qualified applicants can obtain a *Fachgebundene Hochschulreife* after completing a state-regulated vocational education of at least two years' duration plus professional practice of normally at least three years' duration, after having successfully passed an aptitude test at a higher education institution or other state institution; the aptitude test may be replaced by successfully completed trial studies of at least one year's duration.¹⁰

Higher Education Institutions may in certain cases apply additional admission procedures.

8.8 National Sources of Information

- Kultusministerkonferenz (KMK) [Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany]; Graurheindorfer Str. 157, D-53117 Bonn; Phone: +49(0)228/501-0; www.kmk.org; E-Mail: hochschulen@kmk.org
- Central Office for Foreign Education (ZAB) as German NARIC; www.kmk.org; E-Mail: zab@kmk.org
- German information office of the *Länder* in the EURDYCE Network, providing the national dossier on the education system; www.kmk.org; E-Mail: Eurydice@kmk.org
- Hochschulrektorenkonferenz (HRK) [German Rectors' Conference]; Leipzig Platz 11, D-10117 Berlin; Phone: +49 30 206292-11; www.hrk.de; E-Mail: post@hrk.de
- "Higher Education Compass" of the German Rectors' Conference features comprehensive information on institutions, programmes of study, etc. (www.higher-education-compass.de)

¹ The information covers only aspects directly relevant to purposes of the Diploma Supplement. *Berufsakademien* are not considered as Higher Education Institutions, they only exist in some of the *Länder*. They offer educational programmes in close cooperation with private companies. Students receive a formal degree and carry out an apprenticeship at the company. Some *Berufsakademien* offer Bachelor courses which are recognised as an academic degree if they are accredited by the Accreditation Council.

² German Qualifications Framework for Higher Education Degrees. (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 16 February 2017).

³ German Qualifications Framework for Lifelong Learning (DQR). Joint resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany, the German Federal Ministry of Education and Research, the German Conference of Economics Ministers and the German Federal Ministry of Economics and Technology (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 15 November 2012). More information at www.dqr.de

⁴ Recommendation of the European Parliament and the European Council on the establishment of a European Qualifications Framework for Lifelong Learning of 23 April 2008 (2008/C 111/01 – European Qualifications Framework for Lifelong Learning – EQF).

⁵ Specimen decree pursuant to Article 4, paragraphs 1 – 4 of the interstate study accreditation treaty (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 7 December 2017).

⁶ Interstate Treaty on the organization of a joint accreditation system to ensure the quality of teaching and learning at German higher education institutions (Interstate study accreditation treaty) (Decision of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 8 December 2016), Enacted on 1 January 2018.

⁷ See note No. 7.

⁸ See note No. 7.

⁹ Access to higher education for applicants with a vocational qualification, but without a school-based higher education entrance qualification (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany of 6 March 2009).