Study Regulations
of Saarland University
for the Master's degree programme in Mathematics

29 April 2021

Note: This translation is provided for information purposes only. In the event of any discrepancy between the translation and the original German version published in the Official Bulletin (*Dienstblatt der Hochschulen des Saarlandes*), the provisions of the latter shall take precedence.

Pursuant to Section 60 of the Saarland Higher Education Institutions Act (SHSG) (Official Gazette of Saarland I, p. 1080) of 30 November 2016 most recently amended in law by the Act of 8/9 March 2021 (Official Gazette I, p. 736) and on the basis of the Joint Examination Regulations for Bachelor's and Master's Degree Programmes of the Faculty of Mathematics and Computer Science at Saarland University of 25 February 2021 (Official Bulletin p. 580) and on the Subject-Specific Regulations for the Bachelor's and Master's degree programmes in Mathematics of 28 April 2016 (Official Bulletin No. 64, p. 588) and with the consent of the Saarland University Senate, the Faculty of Mathematics and Computer Science at Saarland University hereby issues the following Study Regulations Governing the Master's Degree Programme in Mathematics.

Section 1
Scope

These study regulations, which govern the content and structure of the Master's degree programme in Mathematics, are based on the Joint Examination Regulations for the Bachelor's and Master's Degree Programmes of the Faculty of Mathematics and Computer Science at Saarland University of 25 February 2021 (Official Bulletin, p. 580) and on the Subject-Specific Regulations for the Bachelor's and Master's degree programmes in Mathematics of 28 April 2016 (Official Bulletin No. 64, p. 588). The Faculty of Mathematics and Computer Science is responsible for organizing the teaching, study curriculum and examinations relating to these programmes.

Section 2
Objectives of the degree programme and career relevance

The objective of this consecutive, research-focused Master's degree programme is to expand on and deepen the knowledge acquired in the preceding Bachelor's degree programme and prepare graduates for challenging national and international research and development work in the field of mathematics.

Section 3
Start and duration of programme

(1) Students can begin the programme at the beginning of the winter or summer semester of each year.

(2) The curriculum is organized such that the programme can be completed in four semesters (standard period of study).

Section 4
Types of academic instruction

The curriculum content is taught using the following types of academic instruction:

1. Lectures (German abbreviation: V): Lectures serve to introduce a particular subject area and also provide an overview of the relevant theoretical concepts and principles, methodologies and skills, technologies and practical implementations that are common to the subject. Lecture courses provide suggestions for further reading on a topic and open the way to acquiring a deeper understanding of an area through subsequent practical exercise and problem-solving classes, practical skills classes and self-directed study.

2. Practical exercise and problem-solving classes (German abbreviation: Ü): Exercise and problem-solving classes are used primarily to supplement and reinforce what was learned in the lectures and take place as far as possible in small groups. Students work on representative problems as this provides an opportunity for them to apply and deepen the knowledge they acquired in the lectures, to assess their personal understanding of a specific area and to clarify any questions that they may have.

3. Seminars (German abbreviation: S) provide an opportunity for students to broaden the knowledge and skills that they have already acquired and to gain a deeper understanding of a particular field of research by participating in discussions, giving presentations or completing seminar papers, based on their study of the specialist literature and relevant academic sources. They also help students acquire the skills necessary for the effective oral and visual presentation of scientific and academic content and encourage students to engage in critical analysis and discussion of research results. A seminar may also include project-related work in areas of current scientific interest or debate. The deeper understanding of a particular field that students acquire through project-related work in the Master's seminar may provide the basis for their final-year Master's thesis.

4. Practical skills classes and project work (German abbreviation: P): Practical skills classes or projects offer a number of practical, subject-related topics that introduce students to the specific approaches and methods used in a particular discipline or field of study. The necessary theoretical knowledge underlying a specific topic is acquired by attending lectures and studying the relevant scientific literature. An additional goal of the practical skills classes is to provide students with the opportunity to gain practical experience with application-oriented methods. Projects tend to address interdisciplinary topics. Working on a topic offers students the opportunity to work in supervised groups to tackle specific assignments from the initial solution design concept through to its final practical implementation. Students learn about the relationships between theory and practice not only through their own independent study and research, but also through project-based teamwork. Participation in a particular practical assignment or project may be dependent on a student having first successfully completed a required course of lectures and practical exercise classes.

Section 5
Structure and content of the programme

(1) To graduate from the programme, students shall earn a total of 120 credits (often referred to in Germany as 'credit points' or 'CPs') as defined by the European Credit Transfer System (ECTS). Of these, at least 103 credits and at most 107 credits shall be from graded assignments. As a rule, students are required to earn 30 credits per semester.

(2) The degree programme comprises mandatory modules, mandatory elective modules and elective modules.

Mandatory section. Students shall accumulate a total of 42 credits (g) in the mandatory section, of which 30 credits are from the 'Master's Thesis' module and 12 credits are from the 'Master's Seminar'.

Mandatory electives section. 61-65 credits (g) must be acquired in the mandatory electives section.

Module	Module element	hrs/wk	Semester(s) for standard period of study	Repeat cycle	ECTS credits	Type of examination
Total mandatory electives: Minimum 61 ECTS (g), maximum 65 ECTS (g)						
Core or advanced lecture courses, 47 - 58 ECTS (g) Core lectures are specified in the module catalogue. The choice of advanced lecture courses is newly created for each semester and announced before the beginning of each semester.						
Seminars, 7 or 14 ECTS (g) The choice of seminars is newly created for each semester and announced before the beginning of each semester.						
Seminar	Seminar	2	1-4		7 (g)	oral/written

Electives section. In the electives section, ungraded assignments amounting to 13-17 ECTS credits are acquired.

Modules can be freely selected from the core lecture courses, advanced lectures and the mathematics seminars. The electives section also includes:

Module	Module element	hrs/wk	Semester(s) for standard period of study	ECTS credits	Type of examination
Supervision of exercise and problem-solving classes					
Tutoring[1]				4 (u)	Course certificate

[1] It is possible to select more than one tutoring module provided that the exercise and problem-solving groups are assigned to different modules. In the modules Analysis I and II / Linear Algebra I and II, exercise and problem-solving groups for Analysis I and Analysis II / Linear Algebra I and Linear Algebra II can be included separately in the electives section.

Module	Module element	hrs/wk	Semester(s) for standard period of study	ECTS credits	Type of examination
Soft skills seminars					
Module name					Course certificate
Language Courses (max. 6 ECTS credits) Modern languages, no native languages.					
Language Course				max. 6 (u)	Course certificate
Practical assignments, work placement or internship By request to the Examination Board with its approval.					
Master's level practical assignments				6 each (u)	Course certificate
Work placement or internship in industry				max. 6 (u)	Course certificate/report
By request to the Examination Board, further modules can be included, for example the recognition of student engagement (e.g. General Student Committee (AStA), student parliament (StuPa))) up to 3 ECTS credits and key skills up to 3 ECTS credits.					

(3) Students may select either entire modules or individual module elements from the mandatory electives offered. Credits from academic assessments and examinations that were used to obtain the preceding Bachelor's degree cannot also be used to meet the degree requirements of the Master's programme. However, any credits from academic assessments and examinations that were earned during the Bachelor's degree period but that were not used to meet the total credit requirements for the Bachelor's programme may be transferred to the Master's programme provided that they do not exceed 30 credits in total.

(4) The number of places available in practical skills classes and seminars and in the mandatory elective modules 'Tutoring', 'Soft Skills Seminar' and 'Language Courses' are limited. Admission to these modules is managed by the module coordinator.

(5) Academic credits are either graded or ungraded. A graded academic assessment or examination cannot be split into ungraded and graded credits.

(6) A student who received academic credits for successfully completing a core lecture course is permitted to retake the assessment or examination on one further occasion within the same examination period and during the standard period of study in order to improve the mark awarded (cf. Sec. 13(4) of the Examination Regulations). A student who has received academic credits for successfully completing an advanced lecture course is permitted to retake the assessment or examination on one further occasion within the same examination period in order to improve the mark awarded, provided that the lecturer gave notice at the beginning of the course that the final examination or assessment may be repeated for this purpose. The student will be awarded the higher of the two grades achieved. In all other cases, students are not permitted to repeat an assessment or examination for which they have already achieved at least the minimum passing grade.

(7) The Dean of Studies will ensure that a sufficient number of modules are offered each academic year.

(8) The language of instruction is usually English and will be announced at the beginning of each module or module element.

(9) The choice of modules offered as mandatory electives may be modified according to feasibility and requirements, though any such change shall require the approval of the Examination Board. New or modified modules or module elements, their weighting in ECTS credits and their classification within the different sections of the programme will be announced before the semester begins.

(10) Detailed information regarding the content of modules and module elements are described in the module catalogue that will be made available in suitable form. Any changes or amendments to the information in the module catalogue that are not covered by the provisions of these regulations shall be reported to the Dean of Studies and documented appropriately.

(11) Course attendance may be compulsory for certain seminars, practical exercise or problem-solving classes and practical skills classes. Students will be notified of this by the instructor at the beginning of the course.

Section 6
Study plan

The Dean of Studies will compile an example study plan based on these study regulations with recommendations on how students can organize and structure their studies efficiently (see Appendix). The study plan will be made available in suitable form. The range of modules offered in a particular semester will be published in the Saarland University course catalogue for that semester.

Section 7
Study counselling

(1) The Central Student Advisory Service (*Zentrale Studienberatung*) at Saarland University provides counselling and guidance to prospective students and enrolled students concerning the content, structure and requirements of academic study at Saarland University. It can also advise and assist students with respect to their study options as well as with planning and organizing their studies.

(2) Questions concerning curricular demands, learning objectives, admission requirements and study planning and organization can be addressed to the departmental academic adviser for mathematics.

(3) Questions specific to individual modules should be addressed to the respective module coordinators.

Section 8
Studying abroad

Students have the opportunity to spend part of the programme studying abroad. Students interested in studying abroad should attend a study-abroad consultation session, take preparatory language courses if required, and should clarify credit transfer arrangements in accordance with the relevant examination regulations by completing a study abroad learning agreement. Information on study abroad opportunities, exchange programmes, scholarships and administrative formalities is available from the Saarland University International Office or from the relevant departmental or subject representative. As foreign host universities and scholarship-awarding bodies often have early application deadlines and long application processing times, study abroad applications should normally be submitted to the Examinations Office one year before the planned start date.

Section 9
Master's thesis and Master's seminar

(1) By completing a Master's thesis, students demonstrate that they are able to work independently on tackling problems in mathematics or in related fields. The completion period for the Master's thesis is six months. Students are awarded 30 ECTS credits for completing their Master's thesis.

(2) Before finishing their Master's thesis, each student shall have successfully completed a Master's seminar in an area with direct relevance to the topic being addressed in the thesis. Students attending a Master's seminar shall give an oral presentation on the problem they propose to tackle in their Master's thesis.

(3) Students shall register their thesis project with the Examinations Office no later than one semester after successfully completing the Master's seminar. Students who fail to meet this deadline will be required to successfully complete another Master's seminar.

(4) A colloquium lasting 30 minutes shall be held in order to establish that the Master's thesis is the candidate's own original work. The colloquium shall be held no later than six weeks after the candidate submits the printed version of the Master's thesis.

Section 10
Commencement

These regulations shall come into force on the day after they are announced in the Official Bulletin of the Institutions of Higher Education in Saarland (*Dienstblatt der Hochschulen des Saarlandes*).

Saarbrücken, xx January 2022

President of Saarland University
(Univ.-Prof. Dr. Manfred Schmitt)