Only those regulations published by the Georg-August-Universität Göttingen in its Official Bulletins are legally binding. Any claims to rights or titles resulting from the English translation of these regulations are expressly excluded.

Faculty of Chemistry:

Following the resolution of the Faculty Council of the Faculty of Chemistry dated 05.07.2023, the Presidential Board of the Georg-August-Universität Göttingen approved on 13.10.2023 the fifteenth amendment of the examination and study regulations for the consecutive Master's degree programme “Chemistry” in the version published 07.10.2011 (Official Announcements I No. 10/2011, p. 684), last amended by resolution of the Presidential Board dated 27.02.2023 (Official Announcements I No. 7/2023 p. 149), (§ 44 section 1 sentence 2 NHG in the version of the announcement dated 26.02.2007 (Nds. GVBI (Lower Saxony Law and Official Gazette) p. 69), last amended by Article 7 of the Act dated 23.03.2022 (Nds. GVBI (Lower Saxony Law and Official Gazette) p. 218); § 37 section 1 sentence 3 No. 5 b), § 44 section 1 sentence 3 NHG).

Examination and study regulations for the consecutive Master's degree programme “Chemistry” at the University of Göttingen

Table of Contents

§ 1 Scope

(1) The "General examination regulations for Bachelor and Master's degree programmes, as well as other courses and degrees offered at the University of Göttingen" (APO), apply in their respectively valid forms to the Master's degree programme "Chemistry" at the University of Göttingen.

(2) These regulations stipulate the additional provisions for the consecutive Master's degree programme "Chemistry".

§ 2 Objectives of the course of studies, purpose of the examinations

(1) [1]Building on a Bachelor's degree programme "Chemistry", the course prepares students for working as independent chemists in research and application-oriented occupational fields. [2]The Master's degree programme is characterised by its pronounced focus on research. [3]The extensive course of studies with the highest level of academic content provides thorough scientific specialisation as well as methodological knowledge and experimental skills that can be applied when solving challenging chemical problems independently.

(2) [1]The master's examination will ascertain whether the examinee has indeed acquired the specialised knowledge and key skills required for the purpose of the degree programme, understands the relevant connections of the subject, and possesses the ability to apply scientific methods and insights. [2]The master's examination is a professional and research-oriented degree, which, in particular, creates the foundation for independent scientific work as part of doctoral studies.

§ 3 Academic degree

Once the master's examination is passed, the University of Göttingen awards the university degree "Master of Science" (abbreviated: "M.Sc.").

§ 4 Recommended prior knowledge

[1]Sufficient proficiency in the English language is recommended as most of the specialised literature for chemistry is written in English. [2]Individual elective compulsory modules are offered only in English. [3]Applicants whose knowledge of English is slight are advised to engage in appropriate learning before beginning the course of studies.

§ 5 Study and examination advice

(1) The Central Office of Student Affairs of University of Göttingen offers advice on general questions regarding the eligibility and admissions for a course and the subjects of study.

(2) [1]Course-related subject-specific guidance is provided by the Dean of the Faculty of Chemistry or by the subject-specific advisors appointed by the faculty. [2]The module managers and the lecturers in the individual courses will also provide advice on specific questions pertaining to the individual modules and courses. [3]The specialised study advisory service supports the students in designing their course of studies and study focus and is intended, in particular, to provide assistance in the event of failed examinations.

(3) The chairperson of the examination board for the Bachelor's and consecutive Master's degree programme "Chemistry" will advise on matters related to the examination.

(4) The Office of the Dean of Studies will conduct an introductory event for the Master's degree programme at the start of every semester.

§ 6 Examination board

(1) [1]The examination board has five members, who are appointed by the respective group representatives in the Faculty Council of the Faculty of Chemistry, three members of the professoral group (each of whom is a member of the Institutes for Inorganic Chemistry, Organic and Biomolecular Chemistry and Physical Chemistry), one member of the employee group and one member of the students' union. [2]At the same time, at least one representative is appointed for each member.

(2) The examination board will choose a chairperson and their deputy from the professoral group.

(3) [1]The examination board can draft proposals for quality assurance and required amendments of the present regulations. [2]Before they are passed on to the Faculty Council, they must be submitted to the relevant Advisory Board for questions relating to teaching and learning for an opinion.

§ 7 Module examinations: registration and withdrawal

(1) [1]The registration for written module examinations is completed electronically within the period specified by the examination board. [2]Withdrawal without stating reasons (deregistration) is possible up to a day before the examination date, in as far as the time period between the deadline for registration and the examination date is more than one day. [3]Withdrawal is otherwise excluded.

(2) [1]The registration for oral module examinations is completed electronically within the period specified by the examination board. [2]Withdrawal without stating reasons (deregistration) is possible up to seven days before the examination date, in as far as the time period between the deadline for registration and the examination date is more than seven days. [3]Withdrawal is otherwise excluded.

(3) [1]The registration for examinations during the teaching period and practical module examinations is completed electronically within the period specified by the examination board. [2]Withdrawal without stating reasons (deregistration) is possible up to two weeks before the examination date – which is usually the start of the internship – provided the time period between the deadline for registration and the start of the examination period is more than two weeks. [3]Withdrawal is otherwise excluded.

(4) [1]Registration for other examinations during the teaching period must take place at the start of seminars. [2]Withdrawal from papers is possible up to the announcement of the paper's topic and withdrawal from presentations and co-presentations up to fourteen days before the date of presentation, provided the time period between the deadline for registration and the examination date is more than two weeks. [3]Withdrawal is otherwise excluded.

§ 8 Admission to courses with a restricted number of participants; qualifications for entry to practical laboratory courses

(1) For admission to events (e.g., modules, courses) with a restricted number of places, registrations will be considered according to ranking groups in the following sequence when the registrations exceed the number of places and no identical parallel seminars can be offered:

a) Registration of students for whom the course is a compulsory or elective compulsory course;

b) Registration of students for whom the course is an elective course;

c) Registration of students in other courses of study who are entitled to attend the course as part of their area of professionalisation;

d) Registration of students who wish to attend the course as an additional course;

e) Other registrations of students.

(2) [1]Students who are about to complete their academic studies or who are attending the subject semester in which the module is offered will be given precedence within the individual ranking groups according to section 1; students, who for reasons not attributable to themselves, were unable to receive a place in the previous semester will be given the same precedence. [2]In the event of ranking parity, precedence will be given to students for whom the enrollment to the course is a requirement for attendance in another course in their degree programme or the module package. [3]The date of registration and then a lottery will be decisive in cases of rank parity.

(3) The procedure must be announced in advance with sufficient notice.

(4) [1]In the event that all students within ranking groups specified under section 1 letters a. to c. in a semester cannot be considered for a course, the Faculty of Chemistry shall specify a sufficiently higher number of places for the next semester within the scope of what is possible in terms of staff and infrastructure. [2]This shall not apply in the event that the expected number of participants will

most probably permit consideration of the students assigned to ranking groups as specified in section 2 letters a. to c.

(5) [1]Requirement for the general admission to practical laboratory courses is basically prior participation in the respective safety training. [2]For safety reasons, a precondition for admission to individual laboratory experiments is a colloquium, where it is determined whether the student is sufficiently informed about the practical procedure of the respective experiment and its background.

§ 9 Reassessment of examinations; mandatory study advice

(1) Failed module examinations can be retaken three times.

(2) Anyone who has failed a second re-examination in a compulsory module will be admitted to the third re-examination only after having received mandatory study advice.

(3) [1]In the Master's degree programme “Chemistry”, up to two module examinations passed within the standard course length can be repeated once each for the purpose of grade improvement. [2]At the request of the student, the grade improvement may be limited to partial examinations. [3]A re-examination for grade improvement must take place no later than the end of the next semester following the announcement of the first passing. The repetition cannot result in any deterioration of the grade.

§ 10 Structure of the course of studies; standard course length

(1) The course of studies commences in the winter or the summer semester.

(2) The standard course length is four semesters:

(3) [1]The consecutive Master's degree programme in Chemistry is suitable for part-time study. [2]Part-time study is possible with one third % (10 C), half (15 C) or two thirds (20 C) of the credits to be acquired per semester in the full-time programme. [3]It is not possible to write the Master's thesis on a part-time programme. [4]The provisions of the regulations for part-time study in the currently valid version apply.

(4) The course of studies comprises 120 credits (ECTS credits; in short: C), which are distributed as follows:

a) for the subject-specific studies 78 C,

b) for the area of professionalisation 12 C and

c) for the master’s thesis 30 C.

(5) [1]These compulsory modules, elective compulsory modules and elective modules are specified in the overview of modules (appendix 1). [2]It is at the discretion of the student to decide the times and order in which the modules are attended, provided the qualifications for entry to the individual modules and courses are adhered to. [3]For recommendation on the appropriate course of studies structure, please refer to the schedule for the periods of studies enclosed in appendix II. [4]The module

catalogue and module handbook are published separately in a common electronic version (digital module directory). They form part of these regulations, in as far as the modules are itemised in the overview of modules (appendix I).

(6) [1]In the degree programme, the students complete courses covering all aspects of chemistry, which include lectures on special topics of inorganic, organic, physical and applied chemistry with a total rating of 24 C and two method modules on modern analysis techniques with a total rating of 6 C. [2]Advanced internship modules and lectures on specialisation with a total rating of 48 C can be chosen additionally. [3]In the area of professionalisation, modules with a rating of 12 C, for which natural science modules are offered in addition to practical modules of the four subject areas theoretical chemistry, biomolecular chemistry, catalysis chemistry and macromolecular chemistry, must be completed successfully. [4]Of these 12 C, up to 6 C can be obtained in the form of freely selectable key competence modules.

(7) [1]It is possible to complete part of the course of studies abroad. [2]There are agreements on student exchange programmes with a number of different universities abroad. [3]The faculty makes these public in a suitable manner. [4]Results awarded abroad are recognised under the provisions of APO. [5]For this purpose, a “learning agreement” is concluded before the start of the planned period abroad. [6]This should only include courses and degrees offered at the university abroad, which

a) correspond essentially to the qualification standard of a Master's degree programme,

b) correspond to the qualification objectives of the Master's degree programme "Chemistry” and

c) are not included in a module examination that has already been completed successfully, or will be completed before the start of the period abroad.

[7]The examination board takes decisions about the learning agreement. [8]It is strongly recommended that a subject-specific advisory service be provided before taking up a study abroad and preparing for the learning contract.

§ 10 a Subject-specific examination types

Besides the examination components allowed according to the provisions of APO, the following subject-specific examination components can be planned:

Results log:

[1]In a results log, the candidate should document in writing independent contributions to the planning, execution and evaluation of practical laboratory experiments and present the results in a technically appropriate form in writing. If necessary, he or she may refer to the experiment protocols that have already been tested as part of the examination components rendered in advance. [2]The results log will be assessed by the examiner heading the laboratory classes.

§ 11 Admission to the master's thesis

(1) As a requirement for admission to the master's thesis, all modules of the degree programme with a total rating of 60 C must be completed successfully.

(2) [1]The written application for admission to the master's thesis must be submitted to the responsible examination board. [2]The following material must be enclosed with the application:

a) proof of fulfilment as concerns the requirements specified under section 1, insofar as they are not deposited in the examination administration system,

b) proposal of the topic for the master's thesis,

c) a proposal for the first academic advisor or the second academic advisor,

d) written confirmation of the first academic advisor and the second academic advisor,

e) a declaration specifying that the master's examination in the Master's degree programme "Chemistry" has not been failed definitively or registered as definitively failed in the same or similar Master's degree programme at a domestic or foreign university.

[3]The proposals under letters b) and c) as well as the proof as specified under letter d) are unnecessary if the student provides assurance that he or she has been unable to find an academic advisor.

(3) [1]The examination board shall decide on admission. [2]This should be rejected if

a) the qualifications for entry are not fulfilled or

b) the master's examination in the Master's degree programme in "Chemistry" or a same or similar degree programme at a domestic or foreign university has been definitively failed or regarded as definitive failing or

c) a conditional admission with regard to the student's enrolment in the Master's degree programme "Chemistry" can still occur, e.g. because proof of the successful completion of a previous degree programme has not yet been provided.

§ 12 Master's thesis

(1) [1]In the written master's thesis, the candidate should prove that she or he can process and present a challenging chemical problem independently in accordance with scientific methods within the allotted time. [2]The master's thesis can be completed in one of the areas of "inorganic chemistry", "organic chemistry" and "physical chemistry" or in the selected elective ("biomolecular chemistry", "catalysis chemistry", "macromolecular chemistry", "theoretical chemistry").

(2) [1]In general, the master's thesis should be written in the fourth subject semester of the degree programme. [2]The provisional working topic of the master's thesis must be agreed with the supervisor to be proposed and presented to the responsible examination board with confirmation from the second supervisor to be proposed. [3]Should a candidate be unable to find a supervisor, the

responsible examination board will appoint an academic advisor and a topic. [4]The candidate's view should be considered in choosing the topic. [5]The right to make a proposal for the choice of topic does not constitute a legal right. [6]The Examination Office issues the topic of the master's thesis under the auspices of the chairperson of the examination board. [7]The time of issue must be recorded.

(3) [1]The processing time for the master's thesis is six months. [2]Upon application of the candidate, the examination board concerned can extend the deadline for submitting the thesis by a maximum of 3 months, subject to agreement with the supervisor and the existence of an important reason that cannot be attributed to the candidate. [3]An important reason normally exists in the case of an illness that is to be notified immediately and demonstrated by producing a medical certificate.

(4) [1]The topic can be returned only once and only within the first 4 weeks of the time allotted for completing the thesis. [2]A new topic must be agreed upon immediately, but no later than within 4 weeks. [3]In the event that the master's thesis is repeated, the topic may be returned only in accordance with sentence 1 if the examinee has not resorted to this option in the first submission of the master's thesis.

(5) [1]The master's thesis is to be submitted in due time to the responsible examination office exclusively in text form in the format of a generally used word processing programme or in pdf format (unprotected). [2]The submission shall be made via the examination administration system. [3]The time of submission should be recorded. [4]Upon submission, the candidate should declare in writing that he or she has independently compiled the work and has not used any sources and tools other than those specified.

(6) [1]The office of examinations will pass the master's thesis to the first supervisor and to the second supervisor who will act as independent reviewers. [2]Each reviewer will give a grade.

(7) The duration of the application procedure should not exceed six weeks.

§ 13 Overall result of the master's examination

(1) The master's examination is passed, if at least 120 credits were acquired and all of the required module examinations as well as the master's thesis have been passed.

(2) [1]Module examinations for modules in the area of key competencies, except those modules where key competencies are acquired only partly and integratively, will not be included in the calculation of the grade point average of the master's examination by converting passed and graded module examinations into ungraded module examinations. [2]Conversion in the examination management system takes place at the latest before the transcript of records (master) is issued or before changing the university.

(3) The overall result "with distinction" is awarded if the master's thesis was assessed with 1.0, the overall result of the master's examination is 1.3 or better and no module with an assessment of 3.0 or worse was included in the overall result of the master's examination.

§ 14 Entry into force; interim regulations

(1) This regulation enters into force retroactively following publication in the Official Announcements of the University of Göttingen as per 01.10.2011.

(2) [1]Students who commenced their course of studies before these examination and study regulations came into force and who have remained enrolled in the consecutive Master's degree programme “Chemistry” without interruption will be examined, upon application, in accordance with the examination regulations for the Bachelor’s and Master's degree programme “Chemistry” of the University of Göttingen in the version of the announcement dated 29.09.2006 (Official Announcements no. 24/2006 p. 2110, last amended by resolution of the Presidential Board dated 17.06.2009 (Official Announcements 17/2009 p. 1652), and the supplementary study regulations issued for the Bachelor’s and Master's degree programme “Chemistry” in the version of the announcement dated 29.09.2006 (Official Announcements no. 24/2006 p. 2142), last amended by resolution of the Presidential Board dated 17.06.2009 (Official Announcements 17/2009 p. 1674). The application should be made within one year after the present regulations enter into force. [2]In the event that upon application according to sentence 1, the examination and study regulations shall apply in the version in place before these regulations came into force, this will not apply to overviews of modules, module catalogue and the module handbook for examinations that remain to be taken, unless preventing a breach of trust with a student would necessitate a different decision by the examination board. [3]This different decision is possible especially in the cases in which a module examination can be retaken or a compulsory module or an elective compulsory module was changed substantially or removed. [4]The examination board may introduce general regulations for these cases.

(3) [1]Students who commenced their course of studies before an amendment to these examination and study regulations came into force and who have remained enrolled therein without interruption will be examined on the basis of the examination and study regulations in place before the amendments came into force. [2]In the case of pending examinations, this does not apply to overviews of modules and descriptions, unless the legal entitlements of a student calls for a different decision by the examination board. [3]A different decision can be reached especially in cases where an examination component can be repeated, or a compulsory or elective compulsory module has changed significantly or been cancelled. [4]The examination board may introduce general regulations for these cases. [5]Examinations based on a version valid prior to the coming into force of an amendment to the existing examination and study regulations will be conducted for the last time in the fourth semester following the amendment has come into force. [6]On application, students affected by sentence 1 shall be examined in general on the basis of the amended regulations.

Appendix I: Overview of modules

The sum of 120 C must be successfully completed following the regulations below.

1. Subject-specific studies

Elective compulsory modules worth a total of 78 C have to be successfully completed according to the following regulations.

a. Methods

Either the two modules M.Che.1130 and M.Che.1131 or the two modules M.Che.1132 and M.Che.1133 worth a total of 6 C have to be successfully completed:

M.Che.1130	Modern Methods in Chemistry: Lecture and Tutorial in Diffraction	3 C / 2 WLH
M.Che.1131	Modern Methods in Chemistry: Practical Course in Diffraction	3 C / 3 WLH
M.Che.1132	Modern Methods in Chemistry: Lecture and Tutorial in Spectroscopy and Magnetism	3 C / 2 WLH
M.Che.1133	Modern Methods in Chemistry: Practical Course in Spectroscopy and Magnetism	3 C / 3 WLH

b. Special inorganic chemistry

Two of the following six elective compulsory modules worth a total of 6 C have to be successfully completed:

M.Che.1111	Bioinorganic Chemistry	3 C / 3 WLH
M.Che.1114	Metalorganic Main Group Chemistry	3 C / 3 WLH
M.Che.1115	Mechanistic Organometallic Chemistry	3 C / 3 WLH
M.Che.1116	Current Research Aspects in Inorganic Chemistry 1	3 C / 3 WLH
M.Che.1117	Current Research Aspects in Inorganic Chemistry 2	3 C / 3 WLH
M.Che.1123	Quantum Crystallography	3 C / 3 WLH
M.Che.1126	Molecular Electrochemistry	3 C / 3 WLH
M.Che.1127	Supramolecular Chemistry and Molecular Machines	3 C / 3 WLH

c. Special organic chemistry

Two of the following six elective compulsory modules worth a total of 6 C have to be successfully completed:

M.Che.1211	Chemistry of Natural Compounds	3 C / 3 WLH
M.Che.1212	Methods of Synthesis in Organic Chemistry	3 C / 3 WLH
M.Che.1213	Heterocyclic Chemistry	3 C / 3 WLH
M.Che.1216	Current Topics in Organic Chemistry	3 C / 3 WLH
M.Che.1217	Modern Mass Spectrometry and Gas Phase Chemistry	3 C / 3 WLH
M.Che.1218	Lecture series "Modern Organic and Biomolecular Chemistry"	3 C / 3 WLH
M.Che.1219	Physical Organic Chemistry	3 C / 3 WLH

d. Special physical chemistry

One of the following five elective compulsory modules worth 6 C has to be successfully completed:

M.Che.1311	Vibrational Spectroscopy and Intermolecular Dynamics	6 C / 5 WLH
M.Che.1313	Electronic Spectroscopy and Reaction Dynamics	6 C / 5 WLH
M.Che.1314	Biophysical Chemistry	6 C / 5 WLH
M.Che.1315	Chemical Dynamics at Surfaces	6 C / 5 WLH
M.Che.1316	Current Topics in Physical Chemistry	6 C / 5 WLH
M.Che.1317	Current Topics in Physical Chemistry II	6 C / 5 WLH
M.Che.1318	Fundamentals of Magnetic Resonance and Modern ESR-Spectroscopy	6 C / 5 WLH

e. Applied chemistry

One of the following five elective compulsory modules worth 6 C has to be successfully completed:

M.Che.2402	Quantum Chemistry	6 C / 5 WLH
M.Che.2502	Biomolecular Chemistry	6 C / 5 WLH
M.Che.2602	Modern Trends in the Chemistry of Catalysis	6 C / 5 WLH
M.Che.2702	Special Topics of Macromolecular Chemistry	6 C / 5 WLH
M.Che.2404	Dynamics and Simulation	6 C / 5 WLH

f. Thematic specialisation

Modules worth a total of at least 48 C have to be successfully completed from the following range, including the modules listed in letters a to e which were not included there:

B.Che.3914	Computer based data analysis	6 C / 6 WLH
M.Che.1121	Inorganic Chemistry: Practical research course 1	6 C / 9 WLH
M.Che.1122	Inorganic Chemistry: Practical research course 2	6 C / 9 WLH
M.Che.1124	Physical properties of solids	3 C / 3 WLH
M.Che.1134	Current Topics of Inorganic Chemistry	3 C / 2 WLH
M.Che.1205	Lab Course "Methods of Modern Organic and Biomolecular Chemistry (MeMo)"	9 C / 12 WLH
M.Che.1214	NMR for Structural Chemistry and Biology I	3 C / 3 WLH
M.Che.1215	NMR for Structural Chemistry and Biology II	3 C / 3 WLH
M.Che.1221	Organic Chemistry: Practical research course 1	6 C / 9 WLH
M.Che.1222	Organic Chemistry: Practical research course 2	6 C / 9 WLH
M.Che.1304	Experimental Physical Chemistry - Spectroscopy	6 C / 7 WLH
M.Che.1305	Experimental Physical Chemistry - Kinetics	6 C / 7 WLH
M.Che.1308	Experimental Physical Chemistry - Surface Science and Vacuum Techniques	6 C / 7 WLH

M.Che.1321	Physical Chemistry: Practical research course	6 C / 10 WLH
M.Che.1322	IPC-Practical research course	6 C / 10 WLH
M.Che.1332	Gas-Phase Reaction Dynamics	3 C / 2 WLH
M.Che.1421	External Practical research course	6 C / 9 WLH
M.Che.2503	Biomolecular Chemistry: Practical course	6 C / 6 WLH
M.Che.2603	Chemistry of Catalysis: Practical course	6 C / 8 WLH
M.Che.2703	Macromolecular Chemistry: Practical course	6 C / 8 WLH

Modules from the other mathematical-natural scientific faculties (with the exception of modules from psychology) may also be chosen; in order to do so, an application must be submitted to the Dean of Studies at the Faculty of Chemistry. The application may be rejected without giving reasons; the student possesses no legal claim as to being granted permission.

2. Area of professionalisation

Modules worth a total of at least 12 C must be successfully completed according to the following regulations.

a. Elective compulsory modules

Modules worth a total of at least 6 C have to be be successfully completed from the list of modules given below. Modules from the other mathematical-natural scientific faculties (except for modules from psychology) may also be chosen if applied for at the Dean of Studies at the Faculty of Chemistry. The application may be rejected without giving reasons and there exists no legal claim as to being granted permission.

aa. The following modules from No. 1 letter f (“Thematic specialization”) may be chosen if they were not completed before:

M.Che.1214	NMR for Structural Chemistry an Biology I	3 C / 3 WLH
M.Che.1215	NMR for Structural Chemistry and Biology II	3 C / 3 WLH
M.Che.1121	Inorganic Chemistry: Practical research course 1	6 C / 9 WLH
M.Che.1122	Inorganic Chemistry: Practical research course 2	6 C / 9 WLH
M.Che.1134	Current Topics of Inorganic Chemistry	3 C / 2 WLH
M.Che.1205	Lab Course "Methods of Modern Organic and Biomolecular Chemistry (MeMo)"	9 C / 12 WLH
M.Che.1221	Organic Chemistry: Practical research course 1	6 C / 9 WLH
M.Che.1222	Organic Chemistry: Practical research course 2	6 C / 9 WLH
M.Che.1304	Experimental Physical Chemistry - Spectroscopy	6 C / 7 WLH
M.Che.1305	Experimental Physical Chemistry - Kinetics	6 C / 7 WLH
M.Che.1308	Experimental Physical Chemistry - Surface Science and Vacuum Techniques	6 C / 7 WLH
M.Che.1321	Physical Chemistry: Practical research course 1	6 C / 10 WLH

M.Che.1322	Physical Chemistry: Practical research course 2	6 C / 10 WLH
M.Che.1332	Gas-Phase Reaction Dynamics	3 C / 2 WLH
M.Che.2503	Biomolecular Chemistry: Practical course	6 C / 6 WLH
M.Che.2603	Chemistry of Catalysis: Practical course	6 C / 8 WLH
M.Che.2703	Macromolecular Chemistry: Practical course	6 C / 8 WLH

bb. Modules from the following list:

M.Che.3902	Internship in Chemistry or Pharmaceutical Industry	6 C
M.Che.3910	Activity in students self-administration at the Faculty of Chemistry	4 C
M.Che.3911	Activity in academic self-administration at the Faculty of Chemistry	4 C
M.Che.3998	Organisation and Execution of scientific events	3 C / 4 WLH

cc. Modules from the Bachelor's degree programme "Chemistry" may be chosen if they were not already completed as part of the previous degree programme:

B.Che.3903	Environmental Chemistry	3 C / 2 WLH
B.Che.3914	Computer based data analysis	6 C / 6 WLH
B.Che.3901	Computer Applications in Chemistry	4 C / 6 WLH
B.Che.3912	Practical in the field of management	4 C
B.Che.3915	Chemistry of Knowledge - Epistemological Approaches in Science	3 C / 2 WLH
B.Che.3916	Leading groups - but how?	3 C / 2 WLH
B.Che.3917	Intercultural Competencies - Semester Abroad in the Context of Chemistry	6 C

b. Key competencies

Modules worth a total of no more than 6 C may be chosen from the module handbook for cross-faculty (university-wide) key competencies as well as from the course directory of the Central Institution for Languages and Key Competencies (ZESS) in the respective version last published in the Official Announcements.

3. Master's thesis

The successful completion of the master's thesis is worth 30 C.

Apendix II: Sample curricula

A. Start of studies during the winter semester

Sem. **Σ C**	**Subject-specific studies „Chemistry“ (78 C)**						**Area of professionalisation (key competencies) (12 C)**
	Module	Module	Module	Module	Module	Module	Module
1. **Σ 30 C**	M.Che.1132 Modern Methods in Chemistry: Lecture and Tutorial in Spectroscopy and Magnetism 3 C (Elective compulsory)	M.Che.1133 Modern Methods in Chemistry: Practical Course in Spectroscopy and Magnetism 3 C (Elective compulsory)	M.Che.1212 Methods of Synthesis in Organic Chemistry 3 C (Elective compulsory)	M.Che.1305 Experimental Physical Chemistry – Kinetics 6 C (Elective compulsory)	M.Che.1315 Chemical Dynamics at Surfaces 6 C (Elective compulsory)	M.Che.1111 Bioinorganic Chemistry 3 C (Elective compulsory)	M.Che.3902 Internship in Chemistry or Pharmaceutical Industry 6 C (Elective compulsory)
2. **Σ 30 C**	M.Che.2502 Biomolecular Chemistry 6 C (Elective compulsory)	M.Che.1123 Quantum Crystallography 3 C (Elective compulsory)	M.Che.1205 Lab Course "Methods of Modern Organic and Biomolecular Chemistry (MeMo)" 9 C (Elective compulsory)	M.Che.1215 NMR for Structural Chemistry and Biology II 3 C (Elective compulsory)	M.Che.1218 Lecture series "Modern Organic and Biomolecular Chemistry" 3 C (Elective compulsory)		SK.FS.E-FN-C1-1.Mp Scientific English for Scientists 6 C (Elective compulsory)
3. **Σ 30 C**	M.Che.1213 Heterocyclic Chemistry 3 C (Elective compulsory)	M.Phy.502 Research focus on biophysics and physics of complex systems 6 C (Elective compulsory)	M.Che.1321 Physical Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1221 Organic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1214 NMR for Structural Chemistry an Biology I 3 C (Elective compulsory)	M.Che.1121 Inorganic Chemistry: Practical research course 1 6 C (Elective compulsory)	
4. **Σ 30 C**	Master’s thesis 30 C						
Σ 120 C	**78 C (+ 30 C)**						**12 C**

B. Start of studies during the summer semester

Sem. Σ C	Subject-specific studies „Chemistry“ (78 C)						Area of professionalisation (key competencies) (12 C)
	Module	Module	Module	Module	Module	Module	Module
1. **Σ 30 C**	M.Che.2502 Biomolecular Chemistry 6 C (Elective compulsory)	M.Che.1123 Quantum Crystallography 3 C (Elective compulsory)	M.Che.1205 Lab Course "Methods of Modern Organic and Biomolecular Chemistry (MeMo)" 9 C (Elective compulsory)	M.Che.1315 Chemical Dynamics on Surfaces 6 C (Elective compulsory)			SK.FS.E-FN-C1-1.Mp Scientific English for Scientists 6 C (Elective compulsory)
2. **Σ 30 C**	M Che.1213 Heterocyclic Chemistry 3 C (Elective compulsory)	M.Phy.502 Research focus on biophysics and physics of complex systems 6 C (Elective compulsory)	M.Che.1321 Physical Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1132 Modern Methods in Chemistry: Lecture and Tutorial in Spectroscopy and Magnetism 3 C (Elective compulsory)	M.Che.1121 Inorganic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1122 Inorganic Chemistry: Practical research course 2 6 C (Elective compulsory)	
3. **Σ 30 C**	M.Che.1114 Metalorganic Main Group Chemistry 3 C (Elective compulsory)	M.Che.1221 Organic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1133 Modern Methods in Chemistry: Practical Course in Spectroscopy and Magnetism 3 C (Elective compulsory)	M.Che.1218 Lecture series "Modern Organic and Biomolecular Chemistry" 3 C (Elective compulsory)	M.Che.1222 Organic Chemistry: Practical research course 2 6 C (Elective compulsory)	M. Che.1215 NMR for Structural Chemistry and Biology II 3 C (Elective compulsory)	M.Che.3902 Internship in Chemistry or Pharmaceutical Industry 6 C (Elective compulsory)
4. **Σ 30 C**	Master’s thesis 30 C						
Σ 120 C	**78 C (+ 30 C)**						**12 C**

C. Exclusively German curriculum (Start of studies during the summer semester)

Sem. **Σ C**	**Subject-specific studies „Chemistry“ (78 C)**						**Area of professionalisation (key competencies) (12 C)**
	Module	Module	Module	Module	Module	Module	Module
1. **Σ 33 C**	M.Che.2502 Biomolecular Chemistry 6 C (Elective compulsory)	M.Che.1321 Physical Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1205 Lab Course "Methods of Modern Organic and Biomolecular Chemistry (MeMo)" 9 C (Elective compulsory)	M.Che.1315 Chemical Dynamics on Surfaces 6 C (Elective compulsory)			M.Che.3902 Internship in Chemistry or Pharmaceutical Industry 6 C (Elective compulsory)
2. **Σ 30 C**	M Che.1217 Modern Mass Spectrometry and Gas Phase Chemistry 3 C (Elective compulsory)	M.Phy.502 Research focus on biophysics and physics of complex systems 6 C (Elective compulsory)	M.Che.1132 Modern Methods in Chemistry: Lecture and Tutorial in Spectroscopy and Magnetism 3 C (Elective compulsory)	M.Che.1121 Inorganic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1122 Inorganic Chemistry: Practical research course 2 6 C (Elective compulsory)		SK.FS.E-FN-C1-1.Mp Scientific English for scientists 6 C (Elective compulsory)
3. **Σ 27 C**	M.Che.1114 Metalorganic Main Group Chemistry 3 C (Elective compulsory)	M.Che.1221 Organic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1133 Modern Methods in Chemistry: Practical Course in Spectroscopy and Magnetism 3 C (Elective compulsory)	M.Che.1218 Lecture series "Modern Organic and Biomolecular Chemistry" 3 C (Elective compulsory)	M.Che.1222 Organic Chemistry: Practical research course 2 6 C (Elective compulsory)	M.Che.1308 Experimental Physical Chemistry - Surface Science and Vacuum Techniques 6 C (Elective compulsory)	
4. **Σ 30 C**	Master’s thesis 30 C						
Σ 120 C	**78 C (+ 30 C)**						**12 C**

D. Exclusively English curriculum (Start of studies during the summer semester)

Sem. **Σ C**	**Subject-specific studies „Chemistry“ (78 C)**						**Area of professionalisation (key competencies) (12 C)**
	Module	Module	Module	Module	Module	Module	Module
1. **Σ 30 C**	M.Che.2402 Quantum Chemistry 6 C (Elective compulsory)	M.Che.1115 Mechanistic organometallic Chemistry 3 C (Elective compulsory)	M.Che.1121 Inorganic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1315 Chemical Dynamics on Surfaces 6 C (Elective compulsory)	M.Che.1130 Modern Methods in Chemistry: Lecture and Tutorial in Diffraction 3 C (Elective compulsory)	M.Che.1131 Modern Methods in Chemistry: Practical Course in Diffraction 3 C (Elective compulsory)	SK.DaF-A1-2Std (Hv): Deutsch – Hörverstehen 3 C (Elective compulsory)
2. **Σ 30 C**	M.Che.1311 Vibrational Spectroscopy and Intermolecular Dynamics 6 C (Elective compulsory)	M.Che.1308 Experimental Physical Chemistry - Surface Science and Vacuum Techniques 6 C (Elective compulsory)	M.Che.1304 Experimental Physical Chemistry - Spectroscopy 6 C (Elective compulsory)	M.Che.1122 Inorganic Chemistry: Practical research course 2 6 (Elective compulsory)	M.Che.1212 Methods of Synthesis in Organic Chemistry 3 C (Elective compulsory)		SK.DaF-A1-2Std (Sp): Deutsch – Sprechen 3 C (Elective compulsory)
3. **Σ 30 C**	M.Che.1205 Lab Course "Methods of Modern Organic and Biomolecular Chemistry (MeMo)" 9 C (Elective compulsory)	M.Che.1221 Organic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che.1222 Organic Chemistry: Practical research course 2 6 C (Elective compulsory	M.Che.1215 NMR for Structural Chemistry an Biology II 3 C (Elective compulsory)			M.Che.3902 Internship in Chemical or Pharmaceutical Industry 6 C (Elective compulsory)
4. **Σ 30 C**	Master’s thesis 30 C						
Σ 120 C	**78 C (+ 30 C)**						**12 C**

E. This study plan for part-time study with one third % (10 C) of the credits to be earned per semester in full-time study (in accordance with § 10 section 3) can be studied in both English and German and can be started in both summer and winter semesters. Module dependencies only exist within a semester, so summer and winter semesters can be swapped as desired.

Sem. **Σ C**	**Subject-specific studies „Chemistry“ (78 C)**						**Area of professionalisation (key competencies) (12 C)**
	Modul	Modul	Modul	Modul	Modul	Modul	Modul
1. **Σ 18 C**	M. Che. 1130 Modern Methods in Chemistry: Lecture and Tutorial in Diffraction 3 C (Elective compulsory)	M. Che. 1131 Modern Methods in Chemistry: Practical Course in Diffraction 3 C (Elective compulsory)	M. Che. 1114 Metalorganic Main Group Chemistry 3 C (Elective compulsory)	M. Che. 1123 Quantum Crystallography 3 C (Elective compulsory)			M. Che. 3902 Internship in Chemistry or Pharmaceutical Industry 6 C (Elective compulsory)
2. **Σ 18 C**	M. Che. 1212 Methods of Synthesis in Organic Chemistry3 C (Elective compulsory)	M. Che. 1113 Heterocyclic Chemistry 3 C (Elective compulsory)	M. Che. 1214 NMR for Structural Chemistry and Biology I 3 C (Elective compulsory)	M. Che. 1221 Organic Chemistry: Practical research course 1 6 C (Elective compulsory)			SK.FS.EN-AWC1-1 Academic Writing 3 C (Elective compulsory)
3. **Σ 21 C**	M. Che. 1314 Biophysical Chemistry 6 C (Elective compulsory)	M. Che. 1304 Experimental Physical Chemistry – Spectroscopy 6 C (Elective compulsory)	M. Che. 2402 Quantum Chemistry 6 C (Elective compulsory)	M. Che. 1215 NMR for Structural Chemistry and Biology II 3 C (Elective compulsory)			
4. **Σ 15 C**	M. Che. 1222 Organic Chemistry: Practical research course 2 6 C (Elective compulsory)	M. Che. 1308 Experimental Physical Chemistry - Surface Science and Vacuum Techniques 6 C (Elective compulsory)					M. Che. 1134 Current Topics of Inorganic Chemistry 3 C(Elective compulsory)

5. **Σ 18 C**	M.Che. 1121 Inorganic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che. 1122 Inorganic Chemistry: Practical research course 2 6 C (Elective compulsory)	M.Che. 1305 Experimental Physical Chemistry – Kinetics 6 C (Elective compulsory)				
6. **Σ 30 C**	Master's thesis (30 C)						
Σ 120 C	**78 C (+ 30 C)**						**12 C**

F. This study plan for part-time study with half (15 C) of the credits to be earned per semester in full-time study (in accordance with § 10 section 3) can be studied in both English and German and can be started in both summer and winter semesters. Module dependencies only exist within a semester, so summer and winter semesters can be swapped as desired.

Sem. **Σ C**	**Subject-specific studies „Chemistry“ (78 C)**						**Area of professionalisation (key competencies (12 C)**
	Modul	Modul	Modul	Modul	Modul	Modul	Modul
1. **Σ 15 C**	M. Che. 1130 Modern Methods in Chemistry: Lecture and Tutorial in Diffraction 3 C (Elective compulsory)	M. Che. 1131 Modern Methods in Chemistry: Practical Course in Diffraction 3 C (Elective compulsory)	M. Che. 1114 Metalorganic Main Group Chemistry 3 C (Elective compulsory)	M. Che. 1123 Quantum Crystallography 3 C (Elective compulsory)			SK.FS.EN-AWC1-1 Academic Writing 3 C (Elective compulsory)
2. **Σ 15 C**	M. Che. 1212 Methods of Synthesis in Organic Chemistry 3 C (Elective compulsory)	M. Che. 1113 Heterocyclic Chemistry 3 C (Elective compulsory)	M. Che. 1214 NMR for Structural Chemistry and Biology I3 C (Elective compulsory)				M. Che. 3902 Internship in Chemistry or Pharmaceutical Industry 6 C (Elective compulsory)
3. **Σ 15 C**	M. Che. 1314 Biophysical Chemistry 6 C (Elective compulsory)	M. Che. 1215 NMR for Structural Chemistry and Biology II 3 C (Elective compulsory)	M. Che. 2402 Quantum Chemistry 6 C (Elective compulsory)				
4. **Σ 15 C**	M.Che. 1121 Inorganic Chemistry: Practical research course 1 6 C (Elective compulsory)	M. Che. 1222 Organic Chemistry: Practical research course 2 6 C (Elective compulsory)					M. Che. 1134 Current Topics of Inorganic Chemistry 3 C (Elective compulsory)

5. **Σ 18 C**	M.Che. 1121 Inorganic Chemistry: Practical research course 1 6 C (Elective compulsory)	M.Che. 1122 Inorganic Chemistry: Practical research course 2 6 C (Elective compulsory)	M. Che. 1308 Experimental Physical Chemistry - Surface Science and Vacuum Techniques 6 C (Elective compulsory)				
6. **Σ 12 C**	M. Che. 1304 Experimental Physical Chemistry - Spectroscopy 6 C (Elective compulsory)	M.Che. 1305 Experimental Physical Chemistry – Kinetics 6 C (Elective compulsory)					
7. **Σ 30 C**	Master's thesis (30 C)						
Σ 120 C	**78 C (+ 30 C)**						**12 C**

G. This curriculum for part-time study with two thirds (20 C) of the credits to be earned per semester in full-time study (in accordance with § 10 section 3) can be studied in both English and German and can be started in either the summer or winter semester. Module dependencies only exist within a semester, so summer and winter semesters can be swapped as desired.

Sem. **Σ C**	**Subject-specific studies „Chemistry“ (78 C)**						**Area of professionalisation (key competencies (12 C)**
	Modul	Modul	Modul	Modul	Modul	Modul	Modul
1. **Σ 12 C**	M. Che. 1130 Modern Methods in Chemistry: Lecture and Tutorial in Diffraction 3 C (Elective compulsory)	M. Che. 1131 Modern Methods in Chemistry: Practical Course in Diffraction 3 C (Elective compulsory)	M. Che. 1114 Metalorganic Main Group Chemistry 3 C (Elective compulsory)	M. Che. 1123 Quantum Crystallography 3 C (Elective compulsory)			
2. **Σ 9 C**	M. Che. 1212 Methods of Synthesis in Organic Chemistry 3 C (Elective compulsory)	M. Che. 1113 Heterocyclic Chemistry 3 C (Elective compulsory)	M. Che. 1214 NMR for Structural Chemistry and Biology I3 C (Elective compulsory)				
3. **Σ 9 C**	M. Che. 1215 NMR for Structural Chemistry and Biology II 3 C (Elective compulsory)	M. Che. 2402 Quantum Chemistry 6 C (Elective compulsory)					
4. **Σ 9 C**	M.Che. 1121 Inorganic Chemistry: Practical research course 1 6 C (Elective compulsory)						M. Che. 1134 Current Topics of Inorganic Chemistry 3 C (Elective compulsory)

5. **Σ 12 C**	M. Che. 1314 Biophysical Chemistry 6 C (Elective compulsory)	M. Che. 1304 Experimental Physical Chemistry - Spectroscopy 6 C (Elective compulsory)					
6. **Σ 9 C**	M. Che. 1221 Organic Chemistry: Practical research course 1 6 C (Elective compulsory)						SK.FS.EN-AWC1-1 Academic Writing 3 C (Elective compulsory)
7. **Σ 12 C**	M. Che. 1308 Experimental Physical Chemistry - Surface Science and Vacuum Techniques 6 C (Elective compulsory)	M. Che. 1222 Organic Chemistry: Practical research course 2 6 C (Elective compulsory)					
8. **Σ 6 C**							M. Che. 3902 Internship in Chemistry or Pharmaceutical Industry 6 C (Elective compulsory)
9. **Σ 12 C**	M.Che. 1122 Inorganic Chemistry: Practical research course 2 6 C (Elective compulsory)	M.Che. 1305 Experimental Physical Chemistry – Kinetics 6 C (Elective compulsory)					
10. **Σ 30 C**	Master's thesis (30 C)						
Σ 120 C	**78 C (+ 30 C)**						**12 C**