Faculty of Geoscience and Geography:

Following the resolution of the Faculty Council of the Faculty of Geoscience and Geography on 11.07.2022, the Presidential Board of the Georg-August-Universität Göttingen on 09.11.2022 approved the third amendment to the examination and study regulations for the consecutive Master's degree programme „Geowissenschaften/Geoscience“ in the version published on 19.09.2019 (Official Announcements I no. 41/2019 p. 793), last amended by resolution of the Presidential Board on 27.09.2021 (Official Announcements I Nr. 43/2021 p. 1035) (§ 44 section 1 sentence 2 NHG in the version published on 26.02.2007 (Nds. GVBl. (Lower Saxony Law and Official Gazette) p. 69), last amended by Article 7 of the Act on 23.03.2022 (Nds. GVBl. (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 „Geowissenschaften/Geoscience“ at the University of Göttingen

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Appendix II Sample curricula

§ 1 Scope

(1) The provisions of the "General Examination Regulations for Bachelor's and Master's Programmes and Other Study Programmes at the University of Göttingen" (APO) in their respective valid version apply to the Master's degree programme "Geowissenschaften/Geoscience" at the Georg-August-Universität Göttingen.

(2) These regulations govern the further provisions for the completion of the Master's degree programme "Geowissenschaften/Geoscience".

§ 2 Aim of the study programme, Purpose of the examination

(1) The study programme leading to the degree of "Master of Science" (M.Sc.) prepares students to work as geoscientists in university and non-university research institutions, administrations or authorities, consulting and engineering offices, international organisations and comparable institutions as well as various branches of industry (including raw materials, building materials, ceramics and glass, foundation engineering, water and waste management, environmental protection, insurance).

(2) [1]Geosciences are natural sciences that deal with the composition, structure, history, and present and future state of the Earth's body and its habitats. [2]They investigate the biological, chemical and physical principles of the development of the Earth and of life and the interactions between lithosphere, hydrosphere, cryosphere, atmosphere and biosphere in the Earth system.

(3) [1]In the Master's programme, students - building on a solid foundation of natural and geoscientific knowledge - should acquire in-depth knowledge of the geosciences and their sub-disciplines with a clear focus on current scientific issues, methods and developments. [2]This will enable graduates of this degree programme to understand new scientific findings, to assess them in a technically sound manner, to apply them and also to develop them further. [3]This will enable them to work successfully and at a high scientific level in the diverse fields of application of the geosciences. [4]The course of study also forms the basis for further doctoral degree programmes.

(4) The Master's programme imparts key competencies for a successful career entry as well as for the commencement of further doctoral degree programme beyond the technical knowledge.

(5) The Master's degree programme "Geowissenschaften/Geoscience" qualifies students for senior and responsible positions in a variety of business sectors (e.g., raw materials, building materials, ceramics and glass, foundation engineering, water and waste management, environmental protection, insurance), government agencies and administrations (e.g., municipalities, federal states, federal government, EU, UN) and for advanced scientific activities (e.g., museums, universities, non-university research institutions) including doctoral

degree programmes.

(6) Successful completion of the module examinations and the written final thesis (master's thesis) establishes that the person to be examined has acquired the in-depth specialist knowledge of the geosciences and their sub-disciplines necessary for the study objectives, understands the interrelationships between individual sub-disciplines and has the ability to work according to scientific principles and to question geoscientific models, as well as to communicate geoscientific findings.

§ 3 Academic degree

After passing the final examination, the Georg-August-Universität Göttingen awards the academic degree "Master of Science" (abbreviated: "M.Sc.").

§ 4 Recommended previous knowledge

[1]A very good knowledge of German or English is required for successful study and a smooth course of study. [2]Applicants whose knowledge of these languages is not sufficient are recommended to continue their education accordingly before taking up the master's programme.

§ 5 Structure of the study programme, Standard period of study, study focuses, course of study

(1) The study programme begins in the summer semester and in the winter semester.

(2) The standard period of study is four semesters.

(3) The degree programme is not suitable for part-time study.

(4) The degree programme comprises 120 credits (ECTS credits; abbreviated: C), which are distributed as follows:

a) Core subject studies incl. study focus (60 C)

b) Professionalisation area (30 C)

c) Master’s thesis (30 C)

(5) [1]Within the scope of the core subject studies, there is the possibility to form a study focus. [2]If modules are successfully completed, one of the specialisations geobiology or geochemistry or geology or geomaterials or hydrogeology is certified. [3]The details are regulated in Appendix 1.

(6) [1]Access requirement for the study focus "Hydrogeology" is the proof of achievements of a total of at least 24 C from the field of applied geology, including at least 6 C each from the fields of hydrogeology (6 C), engineering geology (6 C), remote sensing or GIS (6 C), and geophysics or numerical modeling (6 C). [2]The aforementioned achievements may also have been completed outside of university.

(7) [1]Studies and examinations must be completed in compulsory, compulsory elective and elective modules. [2]These compulsory, compulsory elective and elective modules are specified in a binding manner in the module overview (Appendix 1). [3]The module list is published separately; it is an integral part of these regulations insofar as the modules are listed in the module overview. [4]An overview of the distribution of the modules in the course of study can be found in the appendix (Appendix 2).

(8) The study programme offers the possibility of specialisation and acquisition of job-qualifying skills according to individual ideas and plans, especially in the study focus and in the professionalisation area.

(9) [1]The area of the core subject studies consists of compulsory and elective modules and, in addition to the consolidation of basic and specialised geoscientific knowledge in the compulsory curriculum (24 C), includes the study focus with elective modules in the amount of 36 C. [2]The compulsory curriculum includes modules on geodynamics, regional geology and global change. [3]The study focus can be in the fields of geobiology, geochemistry, geology, geomaterials and hydrogeology. [4]The study programme can be completed without specialisation ("studium generale").

(10) [1]The professionalisation area comprises 30 C and consists of a compulsory module (6 C) in close context to the master’s thesis, as well as freely selectable key competence modules of at least 12 C. [2]In addition, there is a freely selectable area for the acquisition of subject-specific and interdisciplinary competences from the field of geosciences or other subjects (elective area, 12 C).

(11) [1]General recommendations for the appropriate structure of the study programme are directed towards the completion of the core subject studies according to the sample curriculum and, in particular, the beginning of the study focus already with the 1st semester (see appendix 2). [2]For the study focus in geology, the module "Mapping Project" is strongly recommended in the professionalisation area. [3]Further recommendations regarding a suitable module selection for the desired profile formation are made within the framework of the student advising.

§ 6 Admission requirements for modules and courses

(1) [1]Access to certain courses or modules (hereinafter: courses) may be restricted by resolution of the Faculty Council if the content-related nature of the course or its proper implementation makes this necessary (see maximum student numbers per module or course

in the module directory). [2]The conditions of access are to be announced in advance. [3]The distribution of places is carried out by the head of the course. [4]In case of conflict, the Dean of Studies decides.

(2) [1]For admission to courses with a limited number of places according to section 1, in the event that there are more applications than places available and no parallel courses can be offered, applications shall be considered according to ranking groups in the following order, whereby the registration of students of this degree programme or of a degree programme for which the Faculty of Geosciences and Geography provides teaching exports shall have priority over students of other degree programmes outside the faculty for courses relating to compulsory or elective modules of this degree programme or of the importing degree programme:

a) Registrations of students in the respective semester for which the course is offered as a compulsory course according to the study regulations or examination regulations and who have not yet attended and successfully completed this course, and of students in the immediate vicinity of graduation. Equal to them are registrations of students who have fulfilled the prerequisites according to sentence 1 in the previous semester and who could not obtain a place despite proper registration or who did not accept the course due to the allocation of a compulsory course taking place at the same time in a subject studied at the same time. Sentence 1 and sentence 2 apply accordingly to courses related to study sections.
b) Registrations of students from subject semesters who deviate from the requirements according to letter a) by one semester or who were not able to successfully complete the course in the previous semester or who were not able to regularly attend or successfully complete the course in the previous semester due to illness - without being on leave of absence. The existence of an illness must be documented by a medical certificate.
c) Registration of students from semesters that differ from the requirements in letter a) by two or more semesters.
d) registrations of students in the respective subject semester or study section for which the course is offered as an elective course according to the study regulations and who fulfill the requirements according to letter a).
e) enrollment of students from semesters that differ from the requirements in letter d) by one or more semesters.
f) Registrations of students who wish to attend the course as an elective within their degree programme.
g) Other student registrations.

[2]If not all applications of a ranking group can be considered, the date of application or, if there is also equality of rank between applicants in this case, the lot shall decide. [3]The procedure shall be announced in good time in advance. [4]The Faculty Council shall, together with its decision pursuant to sentence 1, set a cut-off deadline for registration for this course.

(3) [1]If not all students of the ranking groups according to section 2 letters a) to c) can be considered for the course in one semester, the Faculty Council shall determine a sufficiently higher number of places for the next semester within the scope of personnel and material possibilities. [2]This does not apply if a number of participants is to be expected which makes it reasonable to expect that students in the ranking groups according to section 2 letters a) to c) will be considered.

(4) The Faculty Council may establish a central procedure for access to certain courses in its area that deviates from the procedure in sections 2 and 3.

§ 7 Admission the master's thesis

(1) Admission to the master's thesis requires that all compulsory modules of the core subject studies have been passed and that a total of at least 60 C has been successfully completed.

(2) [1]Application for admission to the master's thesis must be made in writing to the responsible examination board. [2]The following documents must be enclosed:

a) the proposed topic for the master's thesis,

b) a proposal for the two reviewers,

c) proof of fulfillment of the requirements according to section 1,

d) if applicable, confirmation of the supervisor.

[3]The proposal according to letters a) and b) is dispensable if the student affirms that he or she has not found a supervisor. [4]In this case, the examination board appoints supervisors and determines the topic of the master's thesis.

(3) [1]The responsible examination board decides on admission. [2]Admission shall be refused if the admission requirements are not met or if the master's examination in the same or a closely related degree programme has been definitively failed at a university in Germany or abroad.

§ 8 Subject-specific forms of examination

In addition to the examinations permitted under the provisions of the APO, the following subject-specific examinations may be scheduled:

a) Protocol: A protocol is a written account of procedures, observations and interpretations in the field or laboratory.

b) Report: A report is a written account of observations, procedures, and results in the field or laboratory. A report details the research question, the methods used, a discussion of the

results, and the resulting conclusions. A report includes appropriate graphic elements (such as tables, diagrams, figures, maps, etc.) and citation of literature and sources used.
c) Portfolio: A portfolio is a compilation of various achievements defined in the course (e.g. reports, tests and protocols, etc.) on the basis of which the learning progress can be presented.
d) Testat: A testat is a written or oral short examination for the timely examination of the learned material accompanying the course.
e) Professional internship report: A professional internship report contains a written description of the respective institution, the areas of work and fields of activity learned about and the activities carried out. It also reflects on the experience gained, discusses the usefulness of the knowledge and skills from the previous studies for the internship activities and also describes what additional knowledge and skills were gained from the work in the institution. Furthermore, the relevance of the internship for one's own career perspective is reflected upon. The successful completion of a professional internship must be documented by a certificate from the internship employer.

§ 9 Master's thesis

(1) [1]By means of the written master's thesis, the candidate shall prove that he or she is able to work on a problem within the specified period of time using geoscientific methods, to develop an independent, scientifically founded judgment, to arrive at scientifically founded statements and to present the results appropriately in terms of language and form. [2]The topic of the master's thesis is to be chosen from the field of geosciences.
(2) [1]The preliminary topic of the master's thesis must be agreed upon with the supervisor and submitted to the responsible examination committee with confirmation from the supervisor. [2]If the candidate does not find a supervisor, a supervisor and a topic shall be determined by the responsible examination committee. [3]The candidate shall be heard in the selection of the topic. [4]The right to propose a topic does not constitute a legal claim. [5]The topic of the master's thesis shall be issued by the examination office. [6]The date of issue shall be recorded.
(3) [1]The processing time for the master's thesis is 6 months. [2]Upon application by the candidate, the responsible examination committee may extend the processing time by a maximum of 8 weeks (cut-off period) in agreement with the supervisor if there is an important reason that cannot be attributed to the candidate. [3]An important reason is usually an illness, which must be reported immediately and documented by a medical certificate.
(4) [1]The topic can only be returned once and only within the first 8 weeks of the processing period. [2]A new topic will be issued immediately, but within 8 weeks at the latest. [3]The binding choice of subject already made remains unaffected by the return of the topic. [4]In the case of a repetition of the master's thesis, the return of the topic according to sentence one is only permissible if the person to be examined did not make use of this possibility when writing the

master's thesis for the first time.

(5) [1]The master's thesis must be submitted on time and exclusively in the format of a generally used word processing programme or in PDF format (unprotected); submission is usually by upload via the examination administration system. [2]Students who can credibly show that this is not reasonable for them will be supported by the university. [3]The time of submission shall be recorded on file. [4]When handing in the thesis, the candidate has to assure that he or she has written the thesis independently and that he or she has not used any sources and aids other than those indicated.

(6) [1]The examination office forwards the master's thesis to the first supervisor and the second supervisor as reviewers. [2]Each reviewer assigns a grade.

(7) The duration of the evaluation procedure should not exceed 6 weeks.

§ 10 Overall result, final failure

(1) [1]The master's examination is passed if at least 120 credits have been earned and all required module examinations and the master's thesis have been passed. [2]Studies in the Master's programme in Geosciences are completed at the end of the semester in which the master's examination is passed or definitively failed or is deemed to have been failed.

(2) The grade "With Distinction" is awarded if the master's thesis was graded with at least 1.3 and the overall average of all other examination results is at least 1.3.

(3) A written decision shall be issued on the final failure of the master's examination, which shall be accompanied by instructions on how to appeal.

(4) When calculating the overall grade, two modules of the degree programme totaling up to 15 C are disregarded upon the student's request by converting the passed graded module examinations into ungraded module examinations; the request must be made at the latest before the examination certificate is issued; alternatively, the request can be made once before a change of university; the request can only be made once and cannot be withdrawn after conversion in the examination administration system.

§ 11 Examination committee

(1) [1]For the organisation of the examinations and for the performance of all tasks assigned by these examination regulations, the Faculty of Geosciences and Geography shall form an examination committee. [2]The examination committee shall consist of five members appointed by the group representations in the Faculty Council, namely three members of the university teachers' group, one member of the staff group and one member of the students' group. [3]A deputy shall also be appointed for each member. [4]If a member retires prematurely, the corresponding status group in the Faculty Council shall appoint a successor for the remaining term of office.

(2) [1]The examination commission shall elect a chairperson from the group of university professors, as well as a deputy chairperson. [2]The deputy chair may also be exercised by the member of the staff group.

§ 12 Student advisory service

(1) [1]Students have the opportunity to consult the faculty's advisory service throughout their studies. [2]This has the task of supporting individual study planning. [3]Students are recommended to consult the faculty's advisory service especially at the beginning of their studies and before making decisions about changes in their study plans or about the design of the elective area; furthermore, the advising service should be consulted when planning to study abroad and after failing examinations.
(2) Individual study counseling by a faculty member is strongly recommended if the student is only entitled to one retake option for the examination of a compulsory or elective module.

§ 13 Entry into force; Transitional provisions

(1) These regulations shall enter into force on 01.10.2019 following their publication in the Official Announcements I of the Georg-August Universität of Göttingen.

(2) At the same time, the examination and study regulations for the Master's degree programme "Geoscience" in the version of the announcement of 07.10.2011 (Official Announcements I No. 10/2011 p. 745), last amended by decision of the Presidential Board on 07.08.2018 (Official Announcements I No. 40/2018 p. 790), shall expire.

(3) [1]Students who began their studies before an amendment to these Examination and Study Regulations came into force and who were continuously enrolled in the Master’s degree programme “Geoscience” shall be examined according to the examination and study regulations definied in section 2. [2]In the case of examinations still to be taken, this does not apply to module directory and lists, unless the protection of a student's legal entitlements requires a deviating decision by the examination committee. [3]A deviating decision is possible in particular in cases in which an examination or a partial examination requirement can be repeated or a compulsory or required compulsory elective module has been substantially changed or cancelled. [4]The examination committee may make general regulations in this regard. [5]Upon application, students according to sentence 1 shall be examined in total according to the provisions of the amended regulations. [5]Examinations according to these regulations in the version valid prior to the entry into force of an amendment shall be taken for the last time in the fourth semester after the entry into force of this amendment.

(4) [1]Students who began their studies before an amendment to these examination and study regulations came into effect and who were continuously enrolled in this degree programme shall be examined according to the examination and study regulations in the version applicable before the amendment came into effect. [2]In the case of examinations still to be taken, this does not apply to module directory and lists, unless the protection of a student's legal entitlements requires a deviating decision by the examination committee. [3]A deviating decision is possible in particular in cases in which an examination or a partial examination requirement can be repeated or a compulsory or required compulsory elective module has been substantially changed or cancelled. [4]The examination committee may make general regulations in this regard. [5]Upon application, students according to sentence 1 shall be examined in total according to the provisions of the amended regulations.

Appendix I Module overview

Master's degree programme „Geowissenschaften/Geoscience"

Achievements totaling at least 120 C must be completed.

1. Core subject studies

Modules totaling 60 C must be successfully completed in accordance with the following provisions.

a. Compulsory modules

The following four modules totaling 24 C must be successfully completed:

M.Geo.101	Geodynamics I	(6 C/6 WLH)
M.Geo.102	Geodynamics II	(6 C/5 WLH)
M.Geo.103	Global Change	(6 C/6 WLH)
M.Geo.104	Regional Geology	(6 C/6 WLH)

b. Elective compulsory modules

At least six of the following modules totaling at least 36 C must be successfully completed:

M.Geo.112	Geomicrobiology	(6 C/6 WLH)
M.Geo.114	Biogeochemistry	(6 C/6 WLH)
M.Geo.116	Palaeobotany	(6 C/4 WLH)
M.Geo.117	Geobiology	(6 C /6 WLH)
M.Geo.121	Microanalytical Methods and Applications	(6 C/5 WLH)
M.Geo.125	Stable Isotopes – Advanced Course	(6 C/6 WLH)
M.Geo.126	Applied Isotope Geochemistry	(6 C/4 WLH)
M.Geo.127	Advanced practical in isotope geochemistry	(6 C/7 WLH)
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits	(6 C/5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration	(6 C/4 WLH)
M.Geo.138	Structural modelling	(6 C/6 WLH)
M.Geo.139	Geology Project	(6 C/3 WLH)
M.Geo.141	Minerals	(6 C/4,5 WLH)
M.Geo.142	Melts and glasses	(6 C/5 WLH)
M.Geo.144	Electron microscopy	(6 C/4,5 WLH)
M.Geo.151	Basics in Hydrogeology	(6 C/6 WLH)
M.Geo.152	Hydrogeochemistry	(6 C/5 WLH)
M.Geo.153	Hydrogeological Investigation Methods	(6 C/6 WLH)
M.Geo.155	Hydrogeochemical characterization methods	(6 C/6 WLH)
M.Geo.211	Geobiological / Palaeontological project	(6 C/3 WLH)
M.Geo.222	Analytical methods of Petrology	(6 C/5 WLH)

M.Geo.232	Geological Mapping course for advanced students	(6 C/6 WLH)
M.Geo.236	Basin Analysis 3: Methods and Applications	(6 C/4,5 WLH)
M.Geo.237	Geodynamics III	(6 C/5 WLH)
M.Geo.238	Introduction into the micro tectonics	(6 C/5 WLH)
M.Geo.240	Geological field studies	(6 C/6 WLH)
M.Geo.247	Petrology Project	(6 C/3 WLH)
M.Geo.248	Mineralogy Project	(6 C/3 WLH)
M.Geo.252	Georeservoirs	(7 C/7 WLH)
M.Geo.253	Spatial geodata analysis and applied 3D modeling	(6 C/5 WLH)
M.Geo.254	Applied Geophysics and borehole geophysics	(6 C/4 WLH)
M.Geo.255	Applied Geology Project	(6 C/1 WLH)

c. Study focus

One of the specialisations Geobiology or Geochemistry or Geology or Geomaterials or Hydrogeology can be completed; for this purpose, modules according to letter b must be successfully completed to the extent of 36 C in accordance with the following provisions. As a rule, only one study focus can be certified; the examination board decides on exceptions.

ca. Study focus „Geobiology“

i. The following five modules totaling 30 C must be successfully completed:

M.Geo.111	Palaeobiology and biodiversity I	(6 C/5 WLH)
M.Geo.112	Geomicrobiology	(6 C/6 WLH)
M.Geo.113	Palaeobiology and Biodiversity II	(6 C/5,5 WLH)
M.Geo.114	Biogeochemistry	(6 C/6 WLH)
M.Geo.116	Palaeobotany	(6 C/4 WLH)

ii. One of the following modules totaling at least 6 C must be successfully completed:

M.Geo.121	Microanalytical Methods and Applications	(6 C/5 WLH)
M.Geo.125	Stable Isotopes – Advanced Course	(6 C/6 WLH)
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits	(6 C/5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration	(6 C/4 WLH)
M.Geo.141	Minerals	(6 C/4,5 WLH)
M.Geo.144	Electron microscopy	(6 C/4,5 WLH)
M.Geo.211	Geobiological / Palaeontological project	(6 C/3 WLH)

cb. Study focus „Geochemistry“

i. The following four modules totaling 24 C must be successfully completed:

M.Geo.121	Microanalytical Methods and Applications	(6 C/5 WLH)
M.Geo.125	Stable Isotopes – Advanced Course	(6 C/6 WLH)

M.Geo.126	Applied Isotope Geochemistry	(6 C/4 WLH)
M.Geo.127	Advanced practical in isotope geochemistry	(6 C/7 WLH)

ii. Two of the following modules totaling at least 12 C must be successfully completed:

M.Geo.114	Biogeochemistry	(6 C/6 WLH)
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits	(6 C/5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration	(6 C/4 WLH)
M.Geo.141	Minerals	(6 C/4,5 WLH)
M.Geo.152	Hydrogeochemistry	(6 C/6 WLH)
M.Geo.222	Analytical methods of Petrology	(6 C/5 WLH)

cc. Study focus „Geology“

i. The following four modules totaling 24 C must be successfully completed:

M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits	(6 C/5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration	(6 C/4 WLH)
M.Geo.138	Structural modelling	(6 C/6 WLH)
M.Geo.139	Geology Project	(6 C/3 WLH)

ii. Two of the following modules totaling at least 12 C must be successfully completed:

M.Geo.232	Geological Mapping	(6 C/6 WLH)
M.Geo.236	Basin Analysis 3: Methods and Applications	(6 C/4,5 WLH)
M.Geo.237	Geodynamics III	(6 C/5 WLH)
M.Geo.238	Introduction into the micro tectonics	(6 C/5 WLH)
M.Geo.240	Geological field studies	(6 C/6 WLH)

cd. Study focus „Geomaterials“

i. The following modules totaling 18 C must be successfully completed:

M.Geo.141	Minerals	(6 C/4,5 WLH)
M.Geo.142	Melts and glasses	(6 C/5 WLH)
M.Geo.144	Electron microscopy	(6 C/4,5 WLH)

ii. One of the two project modules in the amount of 6 C must be successfully completed:

M.Geo.247	Petrology Project	(6 C/3 WLH)
M.Geo.248	Mineralogy Project	(6 C/3 WLH)

iii. Two of the following modules totaling 12 C must be successfully completed:

M.Geo.114	Biogeochemistry	(6 C/6 WLH)
M.Geo.121	Microanalytical Methods and Applications	(6 C/5 WLH)
M.Geo.222	Analytical methods of Petrology	(6 C/5 WLH)

ce. Study focus „Hydrogeology“

i. The following five modules totaling 30 C must be successfully completed:

M.Geo.151	Basics in Hydrogeology	(6 C/6 WLH)
M.Geo.152	Hydrogeochemistry	(6 C/5 WLH)
M.Geo.153	Hydrogeological Investigation Methods	(6 C/6 WLH)
M.Geo.154	Hydrogeological Modeling	(6 C/6 WLH)
M.Geo.155	Hydrogeochemical characterization methods	(6 C/6 WLH)

ii. At least one of the following modules totaling at least 6 C must be successfully completed:

M.Geo.251	Fractured Rock Aquifers and Hydrological Monitoring	(6 C/4 WLH)
M.Geo.252	Georeservoires	(7 C/7 WLH)
M.Geo.253	Spatial geodata analysis and applied 3D modeling	(6 C/5 WLH)
M.Geo.254	Applied Geophysics and borehole geophysics	(6 C/4 WLH)
M.Geo.255	Applied Geology Project	(6 C/1 WLH)

2. Professionalisation area

Modules totaling at least 30 C must be successfully completed in accordance with the following provisions.

a. Compulsory module

The following module of 6 C must be successfully completed:

M.Geo.105	Scientific Work	(6 C/3 WLH)

b. Key competence modules

Key competence modules from the currently valid university-wide module directory “Key Competencies” totaling at least 12 C must be successfully completed. Alternatively, one or both of the following modules can be completed:

M.Geo.401	External Internship for Master Students	(6 C)
M.Geo.402	External Internship for Master Students II	(6 C)
SK.Geo.100	Committee work in the Faculty of Earth Sciences and Geography	(3 C)
SK.Geo.200	Civic engagement / charitable activities	(6 C)

Upon application to the examination committee, additional geoscience modules may be taken as key competence modules.

c. Elective modules

Further modules amounting to at least 12 C must be successfully completed. The modules not yet completed according to number 1 letter b as well as the modules listed below can be selected. Further geoscientific modules are available as elective options depending on what is offered. Information about this offer can be found on the website of the degree programme. Furthermore, modules from the university's offerings can be completed, provided that they are

not listed in the university-wide module directory “Key Competencies” and the faculty offering the module agrees to their enrollment.

B.Geo.801	Selected aspects of the geosciences 1	(3 C/3 WLH)
B.Geo.802	Selected aspects of the geosciences 2	(6 C/4 WLH)
M.Geo.331	Mapping project	(12 C/3 WLH)
M.Geo.501	Selected aspects of the geosciences for Master students 1	(3 C/3 WLH)
M.Geo.502	Selected aspects of the geosciences for Master students 2	(6 C/5 WLH)

3. Master’s thesis

Successful completion of the master's thesis earns 30 C.

Appendix II Sample curricula

a. Master's degree programme Geoscience. Sample curriculum <u>without study focus.</u>

4 Semesters - 120 Credits (start of studies in winter semester)

<table>
<tr><td>Semester
∑ 120 C</td><td colspan="6">Modules</td></tr>
<tr><td></td><td colspan="6"></td></tr>
<tr><td>1. Sem.
∑ 30 C</td><td rowspan="2">M.Geo.104
Regional
Geology
(6 C/ 6
WLH)</td><td>M.Geo.101
Geodynamics I
(6 C/ 6 WLH)</td><td>M.Geo.103
Global Change
(6 C/ 6 WLH)</td><td>Elective compulsory (6 C)</td><td>Elective compulsory (6 C)</td><td rowspan="2">Elective compulsory (6 C)</td></tr>
<tr><td>2. Sem.
∑ 30 C</td><td>M.Geo.102
Geodynamics II
(6 C/ 4,5 WLH)</td><td>Elective compulsory (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)
Key competencies</td></tr>
<tr><td>3. Sem.
∑ 27 C</td><td rowspan="2">M.Geo.105
Scientific
Work
(6 C/ 3 WLH)</td><td>Elective compulsory (6 C)</td><td>Elective compulsory (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)
Key competencies</td><td></td></tr>
<tr><td>4. Sem.
∑ 33 C</td><td colspan="5">Master's thesis (30 C)</td></tr>
</table>

Elective compulsory modules (min. 30 C)

M.Geo.112	Geomicrobiology (6 C/ 6 WLH)
M.Geo.114	Biogeochemistry (6 C/ 6 WLH)
M.Geo.116	Palaeobotany (6 C/ 4 WLH)
M.Geo.117	Geobiology
M.Geo.121	Microanalytical Methods and Applications (6 C/ 5 WLH)
M.Geo.125	Stable Isotopes – Advanced Course (6 C/ 6 WLH)
M.Geo.126	Applied Isotope Geochemistry (6 C / 4 WLH)
M.Geo.127	Advanced practical in isotope geochemistry (6 C / 7 WLH)
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits (6 C/ 5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration (6 C/ 4 WLH)
M.Geo.138	Structural modelling (6 C/ 6 WLH)
M.Geo.139	Geology Project (6 C/ 3 WLH)
M.Geo.141	Minerals (6 C/ 4,5 WLH)
M.Geo.142	Melts and glasses (6 C/ 5 WLH)
M.Geo.144	Electron microscopy (6 C/ 4,5 WLH)
M.Geo.151	Basics in Hydrogeology (6 C/ 6 WLH)
M.Geo.152	Hydrogeochemistry (6 C/ 6 WLH)
M.Geo.153	Hydrogeological Investigation Methods (6 C/ 5 WLH)
M.Geo.155	Hydrogeochemical characterization methods (6 C/ 6 WLH)
M.Geo.211	Geobiological / Palaeontological project (6 C/ 3 WLH)
M.Geo.222	Analytical methods of Petrology (6 C/ 4-5 WLH)
M.Geo.232	Geological Mapping course for advanced students (6 C/ 6 WLH)
M.Geo.236	Basin Analysis 3: Methods and Applications (6 C/ 4,5 WLH)
M.Geo.237	Geodynamics III (6 C/ 5 WLH)
M.Geo.238	Introduction into the micro tectonics (6 C/ 5 WLH)
M.Geo.240	Geological field studies (6 C/ 6 WLH)
M.Geo.247	Petrology Project (6 C/ 3 WLH)
M.Geo.248	Mineralogy Project (6 C / 3 WLH)
M.Geo.252	Georeservoires (7 C/ 7 WLH)
M.Geo.253	Spatial geodata analysis and applied 3D modeling (6 C/ 5 WLH)
M.Geo.254	Applied Geophysics and borehole geophysics (6 C/ 4 WLH)
M.Geo.255	Applied Geology Project (6 C/ 1 WLH)

Elective modules (min. 12 C)

B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)

As well as:
- Elective modules not yet completed
- further geoscientific modules according to offer
- Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

b. Master's degree programme Geoscience. Sample curriculum with <u>study focus Geobiology.</u>
4 Semesters - 120 Credits
(start of studies in winter semester)

Semester ∑ 120 C	Modules					
1. Sem. ∑ 33 C	M.Geo.104 Regional Geology (6 C/ 6 WLH)	M.Geo.101 Geodynamics I (6 C/ 6 WLH)	M.Geo.103 Global Change (6 C/ 6 WLH)	M.Geo.111 Palaeobiology and biodiversity I (6 C/ 5 WLH)	M.Geo.112 Geomicrobiology (6 C/ 6 WLH)	M.Geo.114 Biogeochemistry (6 C/ 6 WLH)
2. Sem. ∑ 27 C		M.Geo.102 Geodynamics II (6 C/ 4,5 WLH)	Elective compulsory (6 C)	Elective compulsory (6 C)	Elective (6 C) Key competencies	
3. Sem. ∑ 27 C	M.Geo.105 Scientific Work (6 C/ 3 WLH)	M.Geo.116 Palaeobotany (6 C/ 4 WLH)	Elective (6 C)	Elective (6 C)	Elective (6 C) Key competencies	
4. Sem. ∑ 33 C		Master's thesis (30 C)				

Elective compulsory modules (min. 12 C)

M.Geo.121	Microanalytical Methods and Applications (6 C/ 5 WLH)
M.Geo.125	Stable Isotopes – Advanced Course (6 C/ 6 WLH)
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits (6 C/ 5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration (6 C / 4 WLH)
M.Geo.141	Minerals (6 C/ 4,5 WLH)
M.Geo.144	Electron microscopy (6 C/ 4,5 WLH)
M.Geo.211	Geobiological / Palaeontological project (6 C/ 3 WLH)

Elective modules (min. 12 C)

	Selectable are:
B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)
As well as:	- Elective modules not yet completed - further geoscientific modules according to offer - Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

c. Master's degree programme Geoscience. Sample curriculum with <u>study focus Geochemistry</u>.

4 Semesters - 120 Credits

(start of studies in winter semester)

<table>
<tr><td>Semester
∑ 120 C</td><td colspan="8">Modules</td></tr>
<tr><td>1. Sem.
∑ 30 C</td><td rowspan="2">M.Geo.104
Regional
Geologie
(6 C/ 6 WLH)</td><td>M.Geo.101
Geodynamics I
(6 C/ 6 WLH)</td><td>M.Geo.103
Global Change
(6 C/ 6 WLH)</td><td rowspan="2">M.Geo.121
Micro-analytical
Methods and
Applications
(6 C/ 5 WLH)</td><td rowspan="2">M.Geo.127
Advanced
practical in
isotope
geochemistry
(6 C/ 7 WLH)</td><td rowspan="2">M.Geo.125
Stable Isotopes –
Advanced
Course
(6 C/ 6 WLH)</td><td>Elective compulsory
(6 C)</td></tr>
<tr><td>2. Sem.
∑ 30 C</td><td>M.Geo.102
Geodynamics II
(6 C/ 4,5 WLH)</td><td>M.Geo.126
Applied Isotope
Geochemistry (6 C/ 4
WLH)</td><td>Elective (6 C)
Key competencies</td></tr>
<tr><td>3. Sem.
∑ 27 C</td><td rowspan="2">M.Geo.105
Scientific
Work
(6 C/ 3
WLH)</td><td>Elective compulsory
(6 C)</td><td>Elective (6 C)</td><td colspan="2">Elective (6 C)</td><td colspan="2">Elective (6)
Key competencies</td></tr>
<tr><td>4. Sem.
∑ 33 C</td><td colspan="7">Master's thesis (30 C)</td></tr>
</table>

Elective compulsory modules (min. 12 C)		**Elective modules** (min. 12 C)	
M.Geo.114	Biogeochemistry (6 C/ 6 WLH)		Selectable are:
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits (6 C/ 5 WLH)	B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
		M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration (6 C / 4 WLH)	M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)
M.Geo.141	Minerals (6 C/ 4,5 WLH)	As well as:	- Elective modules not yet completed
M.Geo.152	Hydrogeochemistry (6 C/ 5 WLH)		- further geoscientific modules according to offer
M.Geo.222	Analytical methods of Petrology (6 C/ 5 WLH)		- Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

d. Master's degree programme Geoscience. Sample curriculum with <u>study focus Geology.</u>

4 Semesters - 120 Credits

(start of studies in winter semester)

<table>
<tr><td>Semester
∑ 120 C</td><td colspan="6">Modules</td></tr>
<tr><td>1. Sem.
∑ 30 C</td><td rowspan="2">M.Geo.104
Regional
Geology
(6 C/ 6
WLH)</td><td>M.Geo.101
Geodynamics I
(6 C/ 6 WLH)</td><td>M.Geo.103
Global Change
(6 C/ 6 WLH)</td><td>M.Geo.136a
Basin analysis 1
(6 C/ 5 WLH)</td><td>M.Geo.139
Geology project
(6 C/ 3 WLH)</td><td rowspan="2">Elective
compulsory
(6 C)</td></tr>
<tr><td>2. Sem.
∑ 30 C</td><td>M.Geo.102
Geodynamics II
(6 C/ 4,5 WLH)</td><td>M.Geo.136b
Basin analysis 2
(6 C/ 4 WLH)</td><td>M.Geo.138
Structural modelling
(6 C/ 6 WLH)</td><td>Elective (6 C)
Key competencies</td></tr>
<tr><td>3. Sem.
∑ 27 C</td><td rowspan="2">M.Geo.105
Scientific Work
(6 C/ 3 WLH)</td><td>Elective compulsory (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)
Key competencies</td><td></td></tr>
<tr><td>4. Sem.
∑ 33 C</td><td colspan="5">Master's thesis (30 C)</td></tr>
</table>

Elective compulsory modules (min. 12 C)

M.Geo.232	Geological Mapping (6 C/ 6 WLH)
M.Geo.236	Basin Analysis 3: Methods and Applications (6 C/ 4,5 WLH)
M.Geo.237	Geodynamics III (6 C/ 5 WLH)
M.Geo.238	Introduction into the micro tectonics (6 C/ 5 WLH)
M.Geo.240	Geological field studies (6 C/ 6 WLH)

Elective modules (min. 12 C)

	Selectable are:
B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)
As well as:	- Elective modules not yet completed - further geoscientific modules according to offer - Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

e. Master's degree programme Geoscience. Sample curriculum with <u>study focus Geomaterials</u>.
4 Semesters - 120 Credits
(start of studies in winter semester)

<table>
<tr><td>Semester
∑ 120 C</td><td colspan="6">Modules</td></tr>
<tr><td>1. Sem.
∑ 30 C</td><td rowspan="2">M.Geo.104
Regional
Geology
(6 C/ 6 WLH)</td><td>M.Geo.101
Geodynamics I
(6 C/ 6 WLH)</td><td>M.Geo.103
Global Change
(6 C/ 6 WLH)</td><td>M.Geo.141
Minerals
(6 C/ 4,5 WLH)</td><td>Elective compulsory (6 C)</td><td rowspan="2">M.Geo.144
Electron
microscopy
(6 C/ 4,5 WLH)</td></tr>
<tr><td>2. Sem.
∑ 30 C</td><td>M.Geo.102
Geodynamics II
(6 C/ 4,5 WLH)</td><td>M.Geo.142
Melts and glasses
(6 C/ 5 WLH)</td><td>M.Geo.247/248
Petrology /Mineralogy
project
(6 C / 3 WLH)</td><td>Elective (6 C)
Key competencies</td></tr>
<tr><td>3. Sem.
∑ 27 C</td><td rowspan="2">M.Geo.105
Scientific Work
(6 C/ 3 WLH)</td><td>Elective compulsory (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)
Key competencies</td><td></td></tr>
<tr><td>4. Sem.
∑ 33 C</td><td colspan="5">Master's thesis (30 C)</td></tr>
</table>

Elective compulsory modules (min. 12 C)

M.Geo.114	Biogeochemistry (6 C / 6 WLH)
M.Geo.121	Microanalytical Methods and Applications (6 C/ 5 WLH)
M.Geo.222	Analytical methods of Petrology (6 C/ 5 WLH)

Elective modules (min. 12 C)

	Selectable are:
B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)
As well as:	- Elective modules not yet completed - further geoscientific modules according to offer - Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

f. Master's degree programme Geoscience. Sample curriculum with <u>study focus Hydrogeology.</u>
4 Semesters - 120 Credits
(start of studies in winter semester)

Semester ∑ 120 C	Modules				
1. Sem. ∑ 31 C	M.Geo.104 Regional Geology (6 C/ 6 WLH)	M.Geo.101 Geodynamics I (6 C/ 6 WLH)	Elective (6 C)	M.Geo.151 Basics in Hydrogeology (6 C/ 6 WLH)	M.Geo.153 Hydrogeological Investigation Methods (6 C/ 6 WLH)
2. Sem. ∑ 30 C		M.Geo.102 Geodynamics II (6 C/ 4,5 WLH)	M.Geo.152 Hydrogeochemistry (6 C/ 5 WLH)	M.Geo.155 Hydrogeochemical characterisation methods (6 C/ 6 WLH)	Elective (6 C) Key competencies
3. Sem. ∑ 27 C	M.Geo.105 Scientific Work (6 C/ 3 WLH)	M.Geo.103 Global Change (6 C/ 6 WLH)	Elective compulsory (6 C)	Elective (6 C) Key competencies	Elective (6 C)
4. Sem. ∑ 33 C		Master's thesis (30 C)			

Elective compulsory modules (min. 12 C)

M.Geo.252	Georeservoires (7 C/ 7 WLH)
M.Geo.253	Spatial geodata analysis and applied 3D modeling (6 C/ 5 WLH)
M.Geo.254	Applied Geophysics and borehole geophysics (6 C/ 4 WLH)
M.Geo.255	Applied Geology Project (6 C/ 1 WLH)

Elective modules (min. 12 C)

Selectable are:

B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)

As well as:
- Elective modules not yet completed
- further geoscientific modules according to offer
- Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

g. Master's degree programme Geoscience. Sample curriculum <u>without study focus</u>

4 Semesters - 120 Credits (start of studies in summer semester)

<table>
<tr><td>Semester
∑ 120 C</td><td colspan="6">Modules</td></tr>
<tr><td>1. Sem.
∑ 30 C</td><td rowspan="2">M.Geo.104
Regional
Geology
(6 C/ 6
WLH)</td><td>M.Geo.102
Geodynamics II
(6 C/ 4,5 WLH)</td><td>Elective compulsory (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)
Key competencies</td><td rowspan="2">Elective
compulsory
(6 C)</td></tr>
<tr><td>2. Sem.
∑ 30 C</td><td>M.Geo.101
Geodynamics I
(6 C/ 6 WLH)</td><td>M.Geo.103
Global Change
(6 C/ 6 WLH)</td><td>Elective compulsory (6 C)</td><td>Elective compulsory (6 C)</td></tr>
<tr><td>3. Sem.
∑ 27 C</td><td rowspan="2">M.Geo.105
Scientific
Work
(6 C/ 3
WLH)</td><td>Elective compulsory (6 C)</td><td>Elective compulsory (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)
Key competencies</td><td></td></tr>
<tr><td>4. Sem.
∑ 33 C</td><td colspan="5">Master's thesis (30 C)</td></tr>
</table>

Elective compulsory modules (min. 30 C)

M.Geo.112	Geomicrobiology (6 C/ 6 WLH)
M.Geo.114	Biogeochemistry (6 C/ 6 WLH)
M.Geo.116	Palaeobotany (6 C/ 4 WLH)
M.Geo.117	Geobiology (6 C / 6 SWS)
M.Geo.121	Microanalytical Methods and Applications (6 C/ 5 WLH)
M.Geo.125	Stable Isotopes – Advanced Course (6 C/ 6 WLH)
M.Geo.126	Applied Isotope Geochemistry (6 C / 4 WLH)
M.Geo.127	Advanced practical in isotope geochemistry (6 C / 7 WLH)
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits (6 C/ 5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration (6 C/ 4 WLH)
M.Geo.138	Structural modelling (6 C/ 6 WLH)
M.Geo.139	Geology Project (6 C/ 3 WLH)
M.Geo.141	Minerals (6 C/ 4,5 WLH)
M.Geo.142	Melts and glasses (6 C/ 5 WLH)
M.Geo.144	Electron microscopy (6 C/ 4,5 WLH)
M.Geo.151	Basics in Hydrogeology (6 C/ 6 WLH)
M.Geo.152	Hydrogeochemistry (6 C/ 6 WLH)
M.Geo.153	Hydrogeological Investigation Methods (6 C/ 5 WLH)
M.Geo.155	Hydrogeochemical characterization methods (6 C/ 6 WLH)
M.Geo.211	Geobiological / Palaeontological project (6 C/ 3 WLH)
M.Geo.222	Analytical methods of Petrology (6 C/ 4-5 WLH)
M.Geo.232	Geological Mapping course for advanced students (6 C/ 6 WLH)
M.Geo.236	Basin Analysis 3: Methods and Applications (6 C/ 4,5 WLH)
M.Geo.237	Geodynamics III (6 C/ 5 WLH)
M.Geo.238	Introduction into the micro tectonics (6 C/ 5 WLH)
M.Geo.240	Geological field studies (6 C/ 6 WLH)
M.Geo.247	Petrology Project (6 C/ 3 WLH)
M.Geo.248	Mineralogy Project (6 C / 3 WLH)
M.Geo.252	Georeservoires (7 C/ 7 WLH)
M.Geo.253	Spatial geodata analysis and applied 3D modeling (6 C/ 5 WLH)
M.Geo.254	Applied Geophysics and borehole geophysics (6 C/ 4 WLH)
M.Geo.255	Applied Geology Project (6 C/ 1 WLH)

Elective modules (min. 12 C)

B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)

As well as:
- Elective modules not yet completed
- further geoscientific modules according to offer
- Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

h. Master's degree programme Geoscience. Sample curriculum with <u>study focus Geobiology.</u>

4 Semesters - 120 Credits

(start of studies in summer semester)

Semester ∑ 120 C	Modules					
1. Sem. ∑ 27 C	M.Geo.104 Regional Geology (6 C/ 6 WLH)	M.Geo.102 Geodynamics II (6 C/ 4,5 WLH)	Elective compulsory (6 C)	Elective compulsory (6 C)	Elective (6 C) Key competencies	
2. Sem. ∑ 33 C		M.Geo.101 Geodynamics I (6 C/ 6 WLH)	M.Geo.103 Global Change (6 C/ 6 WLH)	M.Geo.111 Palaeobiology and biodiversity I (6 C/ 6 WLH)	M.Geo.112 Geomicrobiology (6 C/ 6 WLH)	M.Geo.114 Biogeochemistry (6 C/ 6 WLH)
3. Sem. ∑ 27 C	M.Geo.105 Scientific Work (6 C/ 3 WLH)	Elective compulsory (6 C)	Elective (6 C)	Elective (6 C)	Elective (6 C) Key competencies	
4. Sem. ∑ 33 C		Master's thesis (30 C)				

Elective compulsory modules (min. 12 C)

M.Geo.121	Microanalytical Methods and Applications (6 C/ 5 WLH)
M.Geo.125	Stable Isotopes – Advanced Course (6 C/ 6 WLH)
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits (6 C/ 5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration (6 C / 4 WLH)
M.Geo.141	Minerals (6 C/ 4,5 WLH)
M.Geo.144	Electron microscopy (6 C/ 4,5 WLH)
M.Geo.211	Geobiological / Palaeontological project (6 C/ 3 WLH)

Elective modules (min. 12 C)

	Selectable are:
B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)
As well as:	- Elective modules not yet completed - further geoscientific modules according to offer - Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

i. Master's degree programme Geoscience. Sample curriculum with <u>study focus Geochemistry</u>.

4 Semesters - 120 Credits

(start of studies in summer semester)

<table>
<tr><td>Semester
∑ 120 C</td><td colspan="8">Modules</td></tr>
<tr><td>1. Sem.
∑ 30 C</td><td rowspan="2">M.Geo.104
Regional
Geology
(6 C/ 6 WLH)</td><td>M.Geo.102
Geodynamics II
(6 C/ 4,5 WLH)</td><td>M.Geo.126
Applied Isotope
Geochemistry
(6 C/ 4 WLH)</td><td rowspan="2">M.Geo.121
Micro-analytical
Methods and
Applications (6
C/ 5 WLH)</td><td rowspan="2">M.Geo.127
Advanced
practical in
isotope
geochemistry
(6 C/ 7 WLH)</td><td rowspan="2">M.Geo.125
Stable Isotopes –
Advanced
Course
(6 C/ 6 WLH)</td><td>Elective (6 C)</td></tr>
<tr><td>2. Sem.
∑ 30 C</td><td>M.Geo.101
Geodynamics I
(6 C/ 6 WLH)</td><td>M.Geo.103
Global Change
(6 C/ 6 WLH)</td><td>Elective compulsory
(6 C)</td></tr>
<tr><td>3. Sem.
∑ 27 C</td><td rowspan="2">M.Geo.105
Scientific
Work
(6 C/ 3
WLH)</td><td>Elective compulsory
(6 C)</td><td>Elective (6 C)
Key competencies</td><td colspan="2">Elective (6 C)
Key competencies</td><td>Elective (6)</td><td></td></tr>
<tr><td>4. Sem.
∑ 33 C</td><td colspan="6">Master's thesis (30 C)</td></tr>
</table>

Elective compulsory modules (min. 12 C)

M.Geo.114	Biogeochemistry (6 C/ 6 WLH)
M.Geo.136a	Basin analysis 1: Sedimentary Petrology and deposits (6 C/ 5 WLH)
M.Geo.136b	Basin analysis 2: Diagenetic and thermal analysis with applications in hydrocarbon exploration (6 C / 4 WLH)
M.Geo.141	Minerals (6 C/ 4,5 WLH)
M.Geo.152	Hydrogeochemistry (6 C/ 5 WLH)
M.Geo.222	Analytical methods of Petrology (6 C/ 5 WLH)

Elective modules (min. 12 C)

	Selectable are:
B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)
As well as:	- Elective modules not yet completed - further geoscientific modules according to offer - Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

j. Master's degree programme Geoscience. Sample curriculum with <u>study focus Geology.</u>

4 Semesters - 120 Credits

(start of studies in summer semester)

Semester ∑ 120 C	Modules					
1. Sem. ∑ 30 C	M.Geo.104 Regional Geology (6 C/ 6 WLH)	M.Geo.102 Geodynamics II (6 C/ 4,5 WLH)	M.Geo.136b Basin analysis 2: Diagenetic and thermal analysis (6 C/ 4 WLH)	M.Geo.138 Structural modelling (6 C/ 5 WLH)	Elective (6 C)	Elective compulsory (6 C)
2. Sem. ∑ 30 C		M.Geo.101 Geodynamics I (6 C/ 6 WLH)	M.Geo.103 Global Change (6 C/ 6 WLH)	M.Geo.136a Basin analysis 1: Sedimentary Petrology and deposits (6 C/ 5 WLH)	M.Geo.139 Geology project (6 C/ 3 WLH)	
3. Sem. ∑ 27 C	M.Geo.105 Scientific Work (6 C/ 3 WLH)	Elective compulsory (6 C)	Elective (6 C) Key competencies	Elective (6 C) Key competencies	Elective (6 C)	
4. Sem. ∑ 33 C		Master's thesis (30 C)				

Elective compulsory modules (min. 12 C)

M.Geo.232	Geological Mapping (6 C/ 6 WLH)
M.Geo.236	Basin Analysis 3: Methods and Applications (6 C/ 4,5 WLH)
M.Geo.237	Geodynamics III (6 C/ 5 WLH)
M.Geo.238	Introduction into the micro tectonics (6 C/ 5 WLH)
M.Geo.240	Geological field studies (6 C/ 6 WLH)

Elective modules (min. 12 C)

Selectable are:

B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)

As well as:

- Elective modules not yet completed
- further geoscientific modules according to offer
- Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

k. Master's degree programme Geoscience. Sample curriculum with <u>study focus Geomaterials</u>.
4 Semesters - 120 Credits
(start of studies in summer semester)

<table>
<tr><td>Semester
∑ 120 C</td><td colspan="6">Modules</td></tr>
<tr><td>1. Sem.
∑ 30 C</td><td rowspan="2">M.Geo.104
Regional Geology
(6 C/ 6 WLH)</td><td>M.Geo.102
Geodynamics II
(6 C/ 4,5 WLH)</td><td>M.Geo.142
Melts and glasses
(6 C/ 5 WLH)</td><td>M.Geo.247/248
Petrology / Mineralogy
project
(6 C / 3 WLH)</td><td>Elective (6 C)
Key competencies</td><td rowspan="2">M.Geo.144
Electron
microscopy
(6 C/ 4,5 WLH)</td></tr>
<tr><td>2. Sem.
∑ 30 C</td><td>M.Geo.101
Geodynamics I
(6 C/ 6 WLH)</td><td>M.Geo.103
Global Change
(6 C/ 6 WLH)</td><td>M.Geo.141
Minerals
(6 C/ 4,5 WLH)</td><td>Elective compulsory (6 C)</td></tr>
<tr><td>3. Sem.
∑ 27 C</td><td rowspan="2">M.Geo.105
Scientific Work
(6 C/ 3 WLH)</td><td>Elective compulsory (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)</td><td>Elective (6 C)
Key competencies</td><td></td></tr>
<tr><td>4. Sem.
∑ 33 C</td><td colspan="5">Master's thesis (30 C)</td></tr>
</table>

Elective compulsory modules (min. 12 C)

M.Geo.114	Biogeochemistry (6 C / 6 WLH)
M.Geo.121	Microanalytical Methods and Applications (6 C / 5 WLH)
M.Geo.222	Analytical methods of Petrology (6 C/ 5 WLH)

Elective modules (min. 12 C)

Selectable are:

B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)

As well as:
- Elective modules not yet completed
- further geoscientific modules according to offer
- Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.

I. Master's degree programme Geoscience. Sample curriculum with <u>study focus Hydrogeology.</u>

4 Semesters - 120 Credits (start of studies in summer semester)

<table>
<tr><td>Semester
∑ 120 C</td><td colspan="6">Modules</td></tr>
<tr><td>1. Sem.
∑ 30 C</td><td rowspan="2">M.Geo.104
Regional Geology
(6 C/ 6 WLH)</td><td>M.Geo.102
Geodynamics II
(6 C/ 4,5 WLH)</td><td>M.Geo.152
Hydrogeochemistry
(6 C/ 5 WLH)</td><td>M.Geo.153
Hydrogeological
Investigation Methods
(6 C/ 6 WLH)</td><td>Elective compulsory (6 C)</td><td rowspan="2">Elective
compulsory (6 C)</td></tr>
<tr><td>2. Sem.
∑ 31 C</td><td>M.Geo.101
Geodynamics I
(6 C/ 6 WLH)</td><td>M.Geo.103
Global Change
(6 C/ 6 WLH)</td><td>M.Geo.151
Basics in Hydrogeology
(6 C/ 6 WLH)</td><td>Elective (6 C)</td></tr>
<tr><td>3. Sem.
∑ 27 C</td><td rowspan="2">M.Geo.105
Scientific Work
(6 C/ 3 WLH)</td><td>Elective (6 C)</td><td>M.Geo.155
Hydrogeochemical
characterisation
methods
(6 C/ 6 WLH)</td><td>Elective (6 C)
Key competencies</td><td>Elective (6 C)
Key competencies</td><td></td></tr>
<tr><td>4. Sem.
∑ 33 C</td><td colspan="5">Master's thesis (30 C)</td></tr>
</table>

Elective compulsory modules (min. 6 C)

M.Geo.252	Georeservoires (7 C/ 7 WLH)
M.Geo.253	Spatial geodata analysis and applied 3D modeling (6 C/ 5 WLH)
M.Geo.254	Applied Geophysics and borehole geophysics (6 C/ 4 WLH)
M.Geo.255	Applied Geology Project (6 C/ 1 WLH)

Elective modules (min. 12 C)

	Selectable are:
B.Geo.714	Selected aspects of the geosciences (3 C / 3 WLH)
M.Geo.331	Mapping project (12 C/ 3 WLH)
M.Geo.336	Selected aspects of the geosciences for Master students (6 C/ 3 WLH)
As well as:	- Elective modules not yet completed - further geoscientific modules according to offer - Modules from the university-wide offer, provided that they are not listed in the module directory of key competences of the university and the exporting faculty agrees.