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Heidelberg University Examination and Degree Programme Rules and Regulations for the Bachelor's Degree Programme in Geosciences

As of 31 August 2006

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Section I. General provisions

§ 1 Purpose of the academic programme and examination

- (1) Whereas in geographical study programmes, the focus is on the various interrelationships between man and environment, as well as on spatial structures, processes and disparities between economy and society, in the Geosciences Bachelor's degree programme, the focus of the programme is on the formation, development and state of earth systems, their material and energy cycles, and the interaction between geospheres, biospheres, atmospheres, and hydrospheres. The Bachelor's degree programme includes the disciplines of geology-palaeontology, mineralogy and environmental geochemistry, and is intended to provide candidates with a degree that will provide them with the necessary professional qualifications, as well as with independent problem-solving skills.
- (2) The purpose of the Bachelor's examinations is to assess whether students have mastered the basics of Geosciences, have an overview of the interrelationships between the individual disciplines, and have acquired the necessary fundamental technical skills, as well as both methodological and practical skills, to enter a profession.

§ 2 Bachelor's degree

Heidelberg University, represented by the Faculty of Chemistry and Geosciences, awards the academic degree of "Bachelor of Science" (abbreviated to "B.Sc.").

§ 3 Standard period of study, programme structure and range of courses offered

- (1) The standard period of study for the Bachelor's degree programme is six semesters, including examinations. Lectures and courses in the Bachelor's degree programme run for five semesters. Successful completion of the Bachelor's degree programme requires a total of 180 credit points (CP) in both compulsory and elective courses.
- (2) The Bachelor's degree programme is a modular programme, consisting of subject courses (138 CP) and cross-disciplinary competency courses (20 CP). The Bachelor's thesis comprises 12 points, and 10 points are given for the preparation of the final oral examination. Modules and their respective lectures are stated in Appendices 1 through 3; the sequence of these courses will follow the model curriculum found in Appendix 5.
- (3) An orientation examination must be taken no later than the end of the second semester of study.

This examination is to be taken during the course of the degree programme, and consists of the successful completion of the two modules "Earth Systems" and "Earth Components". A minimum grade of "sufficient" (4.0) is required in both courses in order to successfully complete the orientation examination.

- (4) If the orientation examination is not passed or is considered not to have been passed, it may be retaken once during the following semester. If the orientation examination has not been passed by the end of the third semester, the student is not entitled to take the final examinations, unless the student is not at fault for the deadline being exceeded.
- (5) The orientation examination is an official part of the Bachelor's examinations.
- (6) Generally, the language of instruction and examinations is German. Classes may be given in English, and the Bachelor's thesis may be written in English.
- (7) The Bachelor's programme is concluded with the Bachelor's examination in accordance with § 15, section 1.
- (8) If the Bachelor's examination has not been passed by the end of the third semester following the end of the regular study period, the student is not entitled to take the final examinations, unless the student is not at fault for the deadline being exceeded.

§ 4 Modules, credits and list of grades

- (1) A module is a teaching unit, self-contained in terms of both time and content and comprised of various lectures and courses. It not only comprises the lectures and courses attended, but also the components necessary for a passing grade in the module.
- (2) The Bachelor's thesis and the final oral examination are regarded as individual modules. The cross-disciplinary competencies are regarded as separate modules (Appendices 1 and 3).
- (3) All components within a module must be graded as "sufficient" (4.0) or higher (=sub-module grades) for the complete module to be passed.
- (4) Credits are given for successfully completed modules, including their individual components. One credit point (CP) corresponds to a workload of 30 hours.
- (5) Permission to register for lectures and courses may depend on the successful completion of other lectures or courses.
- (6) A copy of the grade report ("Transcript of Records") is issued at the end of each semester. All module examinations passed, including their respective credit points and grades, are listed in this Transcript of Records.

§ 5 Examinations board

- (1) The faculty examinations board is responsible for the organisation of examinations and the tasks required by the examination rules and regulations. It is made up of three professors, a research assistant representative, and a student with advisory authority.
- (2) The faculty council appoints the chairperson, the deputy, and the other members of the examinations board. The chairperson and the deputy must be professors. The student member of the examinations board is appointed by the faculty council, based on a proposal from the departmental student committee.
- (3) The members are appointed for three years; the student member is appointed for one year. Each term starts on October 1st. Members may be re-elected
- (4) The examinations board ensures that the examination rules and regulations are upheld. On a regular basis, the board reports to the faculty regarding developments in examination and study periods, grading, and distribution of grades. This report is published in an appropriate form.
- (5) The chairperson manages the business of the examinations board, prepares and chairs meetings, and, in the event of a tie vote, has the deciding vote. The examinations board may confer further responsibility on its chairperson.
- (6) Examinations board members have the right to attend examinations.
- (7) Members of the examinations board and their representatives, as well as examiners and observers are obligated to maintain professional confidentiality. Those who are not civil servants are sworn to secrecy by the chairperson.

§ 6 Examiners and observers

- (1) The examinations board appoints the examiners and observers involved in examinations. It may confer responsibility for appointing examiners and observers on its chairperson. Examiners must be lecturers in the Bachelor's degree programme in Geosciences. In general, examinations which are not completed during the course of study may only be carried out by professors, lecturers, associate professors, or research associates who, on the basis of long-standing teaching experience, have been granted the right by the faculty council to conduct examinations.
- (2) Examinations held during the course of study are usually conducted by the teacher of the course in question.
- (3) Observers must have sat the corresponding Bachelor's examination or equivalent.

- (4) The chairperson of the examinations board ensures that candidates are given sufficient advance notice of examiners' names.
- (5) Authorised examiners may be called upon to conduct an examination for up to two years after leaving Heidelberg University.

§ 7 Recognition of course credits, examination results and academic degrees

- (1) Examination prerequisites and results, and academic degrees obtained through degree programmes at German universities or universities of cooperative education (state or state-recognised), or at foreign universities (state or state-recognised), will be recognised, as long as there are no significant differences concerning the skills acquired, courses taken and degree obtained through the programme. This recognition is required in order to continue an academic programme, take examinations, start a further academic programme or be admitted to a doctoral programme. The validity of § 15, paragraph 3 and 4 LBG (State Public Service Law) remains unaffected.
- (2) Preliminary and intermediate examinations taken at other German universities in the same degree programme or in a similar degree programme will be recognised. Courses completed at recognised distance-learning institutions will be considered equivalent to those in a corresponding traditional study programme with regard to determining the duration of study.
- (3) It is the applicant's responsibility to provide all information necessary for achievements to be recognised. It is the responsibility of the office which carries out the recognition procedure to prove that an application does not fulfil the requirements.
- (4) If agreements exist between the Federal Republic of Germany and other states concerning equivalent university degree programmes (Equivalency Agreements) that favour students from other states by way of derogation from paragraph 1 and § 29, paragraph 2, sentence 5 of the LHG (Act on Higher Education of the Land of Baden-Württemberg), the rules and regulations in the Equivalency Agreement take precedence.
- (5) Examination prerequisites and results are to be graded on the basis of a credit point system that allows for achievements in equivalent or similar degree programmes to be recognised; this also applies to universities of cooperative education, provided there is equivalence.
- (6) Knowledge and skills gained outside a university degree programme may be recognised for such a programme, as long as
 1. the requirements for university admission are fulfilled at the time of recognition,
 2. the knowledge and skills to be recognised for the university degree programme are equivalent in both content and level to the course credits

and examinations which they should replace, and

3. the criteria for recognition have been verified in an accreditation. Knowledge and skills gained outside a university degree programme may not replace more than 50% of the university degree programme. Universities will define the details in the established examination rules and regulations; in particular, under which conditions, and to what extent, knowledge and skills gained outside a university degree programme will be recognised. The examination rules and regulations may require the completion of a placement test.

- (7) For refresher courses, credit points may be given for courses and examinations. When recognising credits from refresher courses for a university degree programme, paragraphs 2 and 5, as well as paragraph 6, sentence 1, no. 1 apply accordingly. When recognising knowledge and skills gained outside a university degree programme for refresher courses, paragraph 6 applies accordingly.

§ 8 Unexcused absence, withdrawal, deception and breaches of regulations

- (1) An examination is graded as "failed" (5.0), if a candidate fails to appear and is unable to provide a valid reason for his or her absence, or, if the candidate withdraws after the examination has started. The same applies if the candidate fails to provide a written examination by the established deadline, unless the candidate is not at fault for the deadline being exceeded.
- (2) Reasons for withdrawal or absence must be plausible and must immediately be submitted in writing to the examinations board. If the candidate, or a child for whom the candidate is generally the sole caregiver, is ill, a medical certificate may be requested. In the event of doubt, a medical certificate from a designated physician may be required. If the reasons stated are accepted, a new examination appointment will be scheduled. In this circumstance, examination results that are already available will be taken into account.
- (3) When deciding whether the candidate is at fault for exceeding a deadline for registration or taking an examination, the examinations board must respect the provisions stated in the Maternity Protection Act and the legal regulations concerning parental leave.
- (4) If the candidate attempts to influence the examination results through cheating or by using unauthorised aids, the examinations will be graded as "failed" (5.0). If a candidate disrupts the official examination procedure, he or she may be excluded by the examiner or examination supervisor from taking further part in the examination, in which case the examination will be graded as "failed" (5.0). In extreme cases, the examinations board may exclude the candidate from all further examinations.
- (5) With regard to paragraph 4, sentences 1 and 2, within a period of 14 days, the candidate may request that the decision be validated by the examinations board. The candidate must be informed of negative decisions immediately and in

writing; the reasons for the decision must be stipulated and information on the procedure for appeal must be provided.

§ 9 Types of examinations

(1) Examinations include:

1. oral examinations completed during the course of study
2. written examinations completed during the course of study (electronically, where applicable)
3. the Bachelor's thesis
4. the final oral examination

(2) If candidates provide a medical certificate that plausibly proves that they are not able to take examinations in the form prescribed, whether completely or partially, due to permanent or chronic health problems, the examinations board may allow them to take an equivalent examination. This also applies to other academic requirements.

§ 10 Oral examinations completed during the course of study

(1) In oral examinations, candidates should be able to prove that they are able to identify interrelationships within the examination subject matter and relate specified problems to these interrelationships.

(2) An oral examination lasts between 15 and 45 minutes.

(3) Students wishing to take a subject examination at a later examination date will be permitted to attend the same examination for another candidate, as long as room is available. However, the visitor may not be present for assessment or announcement of the examination result. Upon request of the candidate, or for other valid reasons, the examination may be closed to visitors.

§ 11 Written examinations completed during the course of study

(1) In written examinations, candidates should be able to prove that they are able to recognise problems related to their subject and develop solutions for them, using subject-specific methods and within limited time and resources.

(2) A written examination lasts between 45 and 150 minutes. Multiple choice questions are permitted.

(3) If a written examination component is taken as a term paper, it must be written under examination conditions. Furthermore, candidates must assure that they are the authors of their work and have used no sources or aids other than those

indicated.

- (4) The evaluation period for written examinations should not exceed two weeks.

§ 12 Assessment of examinations

- (1) Grades for the individual examinations are determined by the respective examiners. The following grades must be used for assessment of examinations:

1 = very good	=	an outstanding performance;
2 = good	=	performance which is substantially stronger than average requirements
3 = satisfactory	=	performance which fulfils average requirements;
4 = sufficient	=	performance which, despite deficiencies, still meets the requirements;
5 = failed	=	performance, which, due to considerable deficiencies, does not meet the requirements.

For more detailed assessment of examination results, grades may be further differentiated by increasing or decreasing the individual grades by 0.3; however, the grade 0.7 and incremental grades above 4.0 may not be used.

- (2) In general, the evaluation period for examinations should not exceed two weeks after completion of the module.
- (3) An examination component is passed when it has been graded as "sufficient" (4.0) or higher.
- (4) When calculating final module grades and the overall examination grade (§19, paragraph 3), only the first decimal after the point is taken into account, without rounding.
- (5) If grades are awarded in accordance with the European Credit Transfer System ECTS, the assessment set forth in Appendix 4 will be used.

Section II: Bachelor's examination

§ 13 Bachelor's examination admission requirements

- (1) Admission to the individual examinations for the Bachelor's examinations will only be authorised for students who:
1. are enrolled in the Bachelor's degree programme in Geosciences at Heidelberg University
 2. have not lost their entitlement to take examinations

- (2) For Bachelor's thesis admission, certificates must be presented with proof of the following:
1. passed orientation examination
 2. successful completion of modules, as set forth in Appendices 1 and 2 (for examinations taken in the order set forth in § 15, paragraph 4b, with the exception of module 17: "oral Bachelor's examination").
- (3) The following certificates must be provided for admission to the final oral Bachelor's examinations:
1. passed orientation examination
 2. successful completion of modules set forth in Appendices 1 and 2 (for examinations taken in the order set forth in § 15, paragraph 4a, with the exception of module 18: "Bachelor's Thesis").

§ 14 Bachelor's examination admission procedure

- (1) The application for admission to the examination must be made in writing, addressed to the chairperson of the examinations board, before taking the first individual examination. The application must include the following documents:
1. evidence of fulfilment of the admission requirements, in accordance with § 13, paragraph 1, nos. 1 and 2
 2. declarations from candidates, stating whether they have previously failed a Bachelor's examination in either the Geosciences degree programme or another geoscientific degree programme, and whether they are currently undergoing an examination procedure in such a programme.
- (2) If candidates are unable to provide such evidence, the examinations board may allow other documents of proof to be accepted.
- (3) The application is the basis for the examinations board's decision as to whether the candidate may be admitted to the examination. Denials must be made in writing, stating the reasons for the denial, and providing information about the procedure for appeal.
- (4) The application for admission to the examination may only be denied if:
1. conditions are not fulfilled in accordance with paragraph 1, or
 2. documents set forth in paragraph 1 are not complete, and have not been completed upon request, or
 3. candidates have failed their final attempt at the Bachelor's examination in Geosciences or another geoscientific degree programme, or have lost the entitlement to take the final examinations, or
 4. the candidate is currently undergoing examination procedures in a degree

programme, as set forth in no. 3.

§ 15 Scope, nature and organisation of the Bachelor's examination

- (1) The Bachelor's examination consists of:
 1. examinations for the modules completed during the course of study, in accordance with Appendices 1 and 2
 2. the final oral examination
 3. the Bachelor's thesis
- (2) The examinations referred to in paragraph 1, no. 1 are taken as an integrated part of their respective lectures or courses. They may be in written or oral form. The lecturer responsible for a lecture or course determines the nature and duration of the integrated examinations and provides this information no later than the beginning of the lecture or course.
- (3) Module examinations may consist of several sub-module examinations.
- (4) The components of the Bachelor's examination must be taken in the following order:
 - a. examinations completed during the course of study - final oral examination - Bachelor's thesis.or
 - b. examinations completed during the course of study - Bachelor's thesis - final oral examination.

§ 16 Final oral examination

- (1) The final oral examination is counted as an individual examination, and is conducted by two examiners. The purpose of the final oral examination is for candidates to show in-depth knowledge of the subject, and recognition of interrelations within the field of examination. The content of the examination reflects the content of the lectures and courses taken during the course of study and within the advanced module. The examination lasts approximately 45 minutes.
- (2) The topics examined and the results of the oral examination must be recorded in a written report. Following the oral examination, candidates must be notified of examination results.
- (3) For examinations taken in the order set forth in § 15, paragraph 4a, the final oral examination must be taken at the first possible examination date within the Summer semester following the last examination component completed during

the course of study.

- (4) For examinations taken in the order set forth in § 15, paragraph, 4b, the final oral examination must be taken no later than the second possible examination date during the Summer semester in which the Bachelor's thesis will be written.
- (5) In each summer semester, two examination dates will be offered, one at the beginning of the semester, and one in July. The validity of § 20, paragraph 3 remains unaffected.
- (6) If the candidate fails to meet the deadlines stated in paragraphs 3 and 4, the oral examination will be graded as "failed" (5.0), unless the candidate is not at fault for the deadline being exceeded.

§ 17 Bachelor's thesis

- (1) The Bachelor's thesis is the examination component that completes the academic programme. The purpose of the thesis is for candidates to prove that they are able to work independently, within a given period of time and using academic methods, to address a problem from the field of geoscience.
- (2) In accordance with § 6, paragraph 1, sentence 4, the Bachelor's thesis may be assigned and supervised by any authorised examiner.
- (3) For examinations taken in the order set forth in § 15, paragraph 4a, the candidate must begin work on the Bachelor's thesis no later than one week after successful completion of the final oral examination, or must have by that time submitted an application to the chairperson of the examinations board for the assignment of a topic.
- (4) For examinations taken in the order set forth in § 15, paragraph 4b, the candidate must begin work on the Bachelor's thesis no later than the beginning of the semester following the last examination component completed during the course of study, or must have by that time submitted an application to the chairperson of the examinations board for the assignment of a topic.
- (5) If the candidate fails to meet the deadlines stated in paragraphs 3 and 4, the Bachelor's thesis will be graded as "failed" (5.0), unless the candidate is not at fault for the deadline being exceeded.
- (6) The topic of the Bachelor's thesis will be determined by the thesis supervisor, in consultation with the candidate. If an application for assignment of a topic is submitted, the chairperson of the examinations board will ensure that the candidate receives a topic for his or her Bachelor's thesis in timely fashion. The candidate is permitted to propose topics; however, this does not constitute entitlement to a particular topic. The thesis topic will be assigned by the chairperson of the examinations board; the date of assignment must be recorded.

- (7) The deadline for submission of the thesis is eight weeks following assignment of the topic. In exceptional cases, the examinations board may extend this deadline by up to two weeks. If the deadline is not met, the Bachelor's thesis will be graded as "failed" (5.0), unless the candidate is not at fault for the deadline being exceeded.
- The topic may only be rejected once, and only within the first two weeks after the date of assignment.
- (8) The topic, task and scope of the Bachelor's thesis must be limited in such a way that the candidate will be able to complete the thesis within the given time frame.

§ 18 Submission and assessment of Bachelor's thesis

- (1) Four copies of the Bachelor's thesis must be submitted to the examinations board before the established deadline; the submission date must be recorded. The thesis may be written in English, and must contain a summary in both English and German.
- (2) When submitting a Bachelor's thesis, candidates must certify in writing that they are the authors of their work and have used no sources or aids other than those indicated.
- (3) The Bachelor's thesis is assessed by two examiners, one of whom must be a professor. The first examiner should be the thesis supervisor. The second examiner is designated by the examinations board. The candidate is permitted to make a proposal; however this does not constitute entitlement to be examined by a particular examiner. The evaluation period should not exceed four weeks.
- (4) The grade is calculated as the mean of both evaluations; § 12, paragraph 4 applies accordingly. If the grades differ by more than one grade point, the examinations board will determine the Bachelor's thesis grade after consulting both examiners. In such cases, a third examiner may be consulted.
- (5) If the Bachelor's thesis is graded as "failed" (5.0), it may be retaken with a new topic; re-writing the thesis on the previous topic is not permitted.

§ 19 Passing the examination and overall grade

- (1) The Bachelor's examination is passed when all examination components as set forth in § 14, paragraph 1 have been graded as "sufficient" (4.0) or higher.
- (2) The calculation of the overall grade consists of 60% of the examinations completed during the course of study and 20% each for the Bachelor's thesis and the final oral examination.

The overall grade is as follows:

average of up to and including 1.5	very good
average of between 1.6 and up to/including 2.5	good
average of between 2.6 and up to/including 3.5	satisfactory
average of between 3.6 and up to/including 4.0	sufficient

If all examination components of the Bachelor's examination are graded 1.0, the candidate will be conferred the title "with distinction".

§ 20 Retaking an examination component; deadlines

- (1) If examinations are not passed, or are not considered to have been passed, they may be retaken once. This includes failed examinations at other universities. A second re-examination is permitted only under exceptional circumstances and only for a maximum of two examinations completed during the course of study. A second re-examination is not permitted for the Bachelor's thesis or the final oral examination.
- (2) Retaking an examination that has been graded as passed is not permitted.
- (3) Failed examinations must be retaken during the following semester or no later than the next examination date. If candidates fail to meet this deadline, they will lose entitlement to take this examination, unless they are not at fault for the deadline being exceeded.
- (4) If a compulsory module examination is failed on the final attempt, the candidate will be dismissed from the academic programme.

§ 21 Bachelor's diploma

- (1) Once the Bachelor's examination is passed, a diploma will be issued within four weeks. This will list all individual modules with their respective grades and credit points, as well as the overall grade. The diploma will be dated with the date of the last examination component. It must be signed by the chairperson of the examinations board.
- (2) A Diploma Supplement in German and English will also be provided, containing additional information about the course content and the course of study.

§ 22 Bachelor's certificate

- (1) A bilingual Bachelor's certificate in German and English is issued with the diploma, bearing the same date as the diploma. It certifies the conferment of the academic degree "Bachelor of Science". The Bachelor's certificate is signed by

the dean and the chairperson of the examinations board.

- (2) If the Bachelor's examination is failed at the final attempt or is considered not to have been passed, the chairperson will issue a written notification, providing information on the procedure for appeal. A certificate will be issued upon request, and upon presentation of documentation of proof, listing passed examinations and their grades, missing examinations required for obtaining the Bachelor's degree, and a statement that, on the final attempt, the Bachelor's examination has not been passed.

Section III: Final provisions

§ 23 Invalidity of examinations

- (1) If a candidate has cheated on an examination and this is not discovered until after the diploma has been issued, the examinations board may, accordingly, correct the examination results that were affected by the cheating and may declare the examination to be partially or completely failed.
- (2) If the requirements for admission to the examination were not fulfilled, but without any intent on the candidate's part to deceive, and this is not discovered until after the diploma has been issued, the passed examination will be considered to compensate for this shortcoming. If the candidate intentionally gained admission to the examination through deceit, the examinations board will make a decision on the matter.
- (3) Before the decision is made, candidates will be given the right to provide an explanation.
- (4) Fraudulent examination diplomas will be confiscated and, if necessary, a new diploma will be issued. If the examination has been graded as "failed" due to cheating or deception, the Bachelor's certificate "Bachelor of Science" will be confiscated along with the fraudulent examination diploma. The statute of limitations for a rendering a decision such as described in paragraph 1 and paragraph 2, sentence 2, is five years from the date on the examination diploma.

§ 24 Access to examination documents

After the examination procedure has been completed, the candidate has the right to request access to examination documents for up to one year.

Requests must be made in writing. The chairperson of the examinations board will decide when and where such access will be given.

§ 25 Coming into force

These examination rules and regulations will come into force on the first day of the month following publication in the President's bulletin (Mitteilungsblatt des Rektors).

Appendix 1: Compulsory modules of the Bachelor's examination, including certification of successful participation and grading

Module	Module	CP
1	Cross-disciplinary Competencies I: "Key Competencies for Effective Study "	3
2	Basic Principles of Mathematics	6
3	Basic Principles of Chemistry	14
4	Basic Principles of Physics I	6
6	Introduction to Earth Systems I	11
7	Introduction to Earth Systems II	7
8	Methods in Geosciences I	10
9	Processes in Earth Systems	14
10	Methods in Geosciences II	14
11	Methods in Geosciences III	11
12	Cross-disciplinary Competencies II: " Practical Experience"	11
13	Cross-disciplinary Competencies III: "Project-Related Competencies"	6
14	Petrology and Geodynamics	8
15	Environmental Geochemistry and Soil Science	6
16	Sedimentary Geology	7
18	Final oral examination	10
19	Bachelor's thesis	12

Appendix 2: Compulsory elective modules for the Bachelor's examination, including certification of successful participation and grading

Module	Module	CP
5A	Basic Principles of Physics II	9
5B	Basic Principles of Biology	10
17A	Mineralogy	15
17B	Environmental Geochemistry	15
17C	Geology	15

Either module 5A or 5B from Module 5 must be taken during the 2nd semester. Additionally, one of the three modules 17A, 17B, or 17C must be taken during the 4th or 5th semester. The topic of the Bachelor's thesis should be selected from the Module 17 topic that was selected.

Appendix 3: Modules for the acquisition of cross-disciplinary competencies

Module	Module	CP
1	Cross-disciplinary Competencies I: "Key Competencies for Effective Study"	3
12	Cross-disciplinary Competencies II: "Practical Experience"	11
13	Cross-disciplinary Competencies III: "Project-Related Competencies"	6

Appendix 4: Grading in accordance with ECTS

In addition to the German-system grades, students who have passed the examinations will also be awarded a letter grade according to the following scale:

A	top 10 %
B	the subsequent 25 %
C	the subsequent 30 %
D	the subsequent 25 %
E	the subsequent 10 %

The letter grades are calculated based on the examination results of the total graduating class, as well as the graduating classes from two or more previous years, depending on the number of students in the current graduating class. For degree grades, the ECTS grade must be added. For individual modules, the ECTS grade may be listed when possible and necessary.

APPENDIX 5: Model curriculum

LECTURE OR COURSE	Module	Credit hours + course type	CP
1st SEMESTER			
Seminar: "Key Competencies for Effective Study" (Part 1)	1	1 S	1
Mathematics in the Natural Sciences I	2	2 Lect + 2 Tut	3
Introduction to General and Inorganic Chemistry (5 CH up to the Christmas holidays)	3	3 Lect	3
Tutorials in General Chemistry for the Geosciences	3	2 Tut	3
Physics A	4	4 Lect + 2 Tut	6
Earth Systems	6	2 Lect + 2 Tut	5
Earth Components	6	1 Lect + 1 Tut	3
<i>Total CH or CP:</i>		22	24
2nd SEMESTER			
Seminar: "Key Competencies for Effective Study" (Part 2)	1	2 S	2
Mathematics in the Natural Sciences II	2	2 Lect + 2 Tut	3
Internship in Inorganic Chemistry for Geoscientists and Mathematicians	3	8 I	8
Physics B (if compulsory elective module 5A is selected)	5A	4 Lect + 2 Tut	6
Crystallography in the Geosciences	6	1 Tut/ Lect	2
Geological History (incl. 4 excursion days)	7	2 Lect + 2 Tut	4
Geomorphology	7	2 Lect	3
Geological Maps and Cross-Sections	8	3 Tut	3
Light Microscopy I	8	2 Lect/ Tut	3
<i>Total CH or CP:</i>		26 or 32	28 or 34
3rd SEMESTER			
Physics Internship during the first semester break for Physics, Mathematics and Geosciences majors (if compulsory elective module 5A is selected)	5A	3 I	3

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Biology I (5 CH up to the Christmas holidays; if compulsory elective module 5B is selected)	5B	3 Lect	5
Minerals and Rocks	6	2 Lect/ Tut	3
Field Methodology in Geosciences (8 days)	8	4 Tut	4
Physical-chemical Principles of Earth Systems Processes	9	3 Lect + 2 Tut	6
Basic Principles of Geochemistry and Isotope Geology	9	2 Lect + 1 Tut	4
Basic Principles of Palaeontology and Bio-Geology	9	1 Lect + 2 Tut	4
Introduction to Laboratory Methods in Geosciences	10	1 Lect + 2 Tut	4
Light Microscopy II	10	3 Lect/ Tut	4
Statistics and Computer Practice	10	1 Lect + 2 Tut	4
<i>Total CH or CP:</i>		29	36 or 38
4th SEMESTER			
Internship in Biology for non- Biology majors (if compulsory elective module 5B is selected)	5B	4 I	4
Exercise in Cartography (8 days)	11	4 Tut	4
Seminar: "Geoscientific Professional Fields"	12	1 S	1
Work Internship: "Geosciences" (6 weeks, during the semester break)	12	15 I	9
Basic Principles of Structural Geology and Tectonics	14	1 Lect + 1 Tut	3
Geodynamics, Magmatism and Metamorphosis	14	2 Lect + 1 Tut	5
Introduction to Environmental Geochemistry	15	1 Lect + 1 Tut	3
Soil Science	15	1 Lect + 1 Tut	3
Sediments and Sedimentary Rocks	16	2 Lect + 1 Tut	4
Compulsory elective module 17A: Mineralogy (alternative to 17B and 17C)			
One of the following modules: "Excursions: 'Petrology and Geodynamics '" (6 days), or "Symmetry and Properties of Crystals"	17A	3 Tut 2 Lect + 1 Tut	3
Basic Principles of X-ray Diffraction and Spectral Analysis	17A	1 Lect + 1 Tut	3
Compulsory elective module 17B: Environmental Geochemistry (alternative to 17A and 17C)			

Please note that this document is a non-binding convenience translation. Only the German version of the document entitled "Prüfungs- und Studienordnung der Universität Heidelberg für den Bachelorstudiengang Geowissenschaften" dated 31 August 2006 (published in the President's bulletin [Mitteilungsblatt des Rektors] of 25 September 2006, p. 583), last amended on 22 April 2013 (President's bulletin [Mitteilungsblatt des Rektors] of 31 May 2013, p. 341) has legal validity.

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Field and Laboratory Exercise: "Environmental Geochemistry" (6 days)	17B	3 Tut	3
Compulsory elective module 17C: Geology (alternative to 17A and 17B)			
Field Exercise: "Geology" (6 days)	17C	3 Tut	3
Basic Principles of X-ray Diffraction and Spectral Analysis	17C	1 Lect + 1 Tut	3
<i>Total CH or CP with compulsory elective module 17A:</i>		<i>37 or 41</i>	<i>38 or 42</i>
<i>Total CH or CP with compulsory elective module 17B:</i>		<i>35 or 39</i>	<i>36 or 40</i>
<i>Total CH or CP with compulsory elective module 17C:</i>		<i>37 or 41</i>	<i>38 or 42</i>

5th SEMESTER

Geophysical Methods	11	1 Lect + 2 Tut	4
Introduction to GIS for the students in Natural Science, Engineering Science or Geoscience programmes (imported lecture from Karlsruhe)	11	2 Lect + 2 Tut	3
Concepts and Methods in Sedimentary Geology	16	1 Lect + 1 Tut	3
Practice Forum: "Geosciences"	12	1 S	1
Workshop: "Project Management"	13	1 S	4
Project work within a project seminar	13	4 Tut	4
Presentation of the project work within a colloquium	13	1 S	1
Compulsory elective module 17A: Mineralogy (alternative to 17B and 17C)			
X-ray Phase Analysis	17A	2 Tut	2
Introduction to Electron Microscopy and Electron Probe Microanalysis	17A	2 Tut	2
Mineral Synthesis Methodologies	A 12-03-1	1 Lect + 1 Tut	3
Seminar: "Mineralogy"	17A	2 S	2
Compulsory elective module 17B: Environmental Geochemistry (alternative to 17A and 17C)			
Environmental Analytics 17B 2 Lect + 3 Tut 4	17B	2 Lect + 3 Tut	5
Hydro-Geochemistry 17B 1 Lect + 1 Tut 3	17B	1 Lect + 1 Tut	3
Geochemistry of Soils 17B 1 Lect + 1 Tut 2	17B	1 Lect + 1 Tut	2
Seminar: "Environmental Geochemistry"	17B	2 S	2
Compulsory elective module 17C: Geology (alternative to 17A and 17B)			

16-04-9	22/04/13	04-20	
Coding reference	Last amended	Edition – Page	
Geodynamics and Basin Formation 17C 1 Lect + 1 Tut 2	17C	1 Lect + 1 Tut	2
Geo-resources 17C 1 Lect + 1 Tut 2	17C	1 Lect + 1 Tut	2
Applied Palaeontology 17C 1 Lect + 1 Tut 2	17C	1 Lect + 1 Tut	2
Methods in Stratigraphy	17C	1 Lect	1
Seminar: "Geology"	17C	2 S	2
<i>Total CH or CP with compulsory elective module 17A:</i>		24	26
<i>Total CH or CP with compulsory elective module 17B:</i>		27	29
<i>Total CH or CP with compulsory elective module 17C:</i>		26	26
6th SEMESTER			
Final oral examination, including preparation)	18		10
Bachelor's thesis (8 weeks)	19		12

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