*This is a nonofficial translation from the German original. Only the German original „**Wegleitung für das Masterstudium Geowissenschaften am Departement Umweltwissenschaften der Philosophisch-Naturwissenschaftlichen Fakultät der Universität Basel**" (25. Mai 2021) is legally valid.*

GUIDELINES

for the

Master's Studies in Geosciences in the Department of Environmental Sciences, Faculty of Science at the University of Basel

approved by the Faculty of Science on 25 May 2021

GUIDELINES – Master's in Geosciences

1. General Information

The admission requirements and descriptions of the degree programs offered by the University of Basel are listed in the respective regulations and guidelines, and are available online: www.unibas.ch/de/Dokumente.html.

The admission requirement is the proof of a Bachelor's grade of 180 credit points, which is equivalent to a Bachelor's in Geosciences at the University of Basel. These must have been earned at a higher education institution that is recognized by the University of Basel. You can find more detailed information relating to the admission procedure online at https://www.unibas.ch/de/Studium.html.

The master's studies are designed as an English-language program (English level B2 – see the "Regulations concerning English language skills at level B2 or C1 according to the Common European Reference Framework", https://www.unibas.ch/de/Studium/Bewerbung-Zulassung/Zulassung/Sprachkenntnisse.html). However, courses may also be held in German if all course participants are in agreement.

The **University of Basel Study Regulations** includes information about: studies and the European Credit Transfer and Accumulation System (ECTS), general rights and obligations of students, admission and application, as well as matriculation and semester registration (www.unibas.ch/de/Studium/Studierendenordnung.html).

The **Regulation for Master's Degree Programs** (in short: **Framework Regulations**) lay out general information about the master's degree programs offered by the Faculty of Science at the University of Basel (https://philnat.unibas.ch/de/studium/).

The **Regulations for Master's Studies in Geosciences in the Faculty of Science at the University of Basel** dated 1. August 2021 regulates the master's studies in Geosciences (https://geo.unibas.ch/en/degree-programs/msc-geosciences/). More details are given in these guidelines for the "Master's Studies in Geosciences in the Department of Environmental Sciences in the Faculty of Science at the University of Basel".

The study regulations and guidelines apply to all students who begin their studies on 1 August 2021 or later.

The Geosciences Teaching Committee is the responsible body for the master's degree program in Geosciences; its members and tasks are regulated in the Regulations for Master's Studies in Geosciences.

For the successful completion of the master's studies, the Faculty awards the degree of a "Master of Science in Geosciences".

2. Careers

Career opportunities open up for graduates of the geosciences on a national and international level in the fields of nature, water, soil and climate protection, air pollution control, environmental research as well as in spatial planning (e.g. natural hazards) or in resource and material research. Geography as a sub-discipline of the geosciences also offers the professional prerequisites for training as a high school teacher. Most geoscientists work in private and semi-private institutions, cantonal and federal offices, statistical information services, governmental and non-governmental organizations, independent consultants' offices, and in industry. Job opportunities arise in all areas where spatially and temporally relevant data are collected and analyzed using Geographic Information Systems (GIS) and models, and managed, for example, in environmental and conservation information systems. This sector plays an increasingly important role in public administration and in general for expertises in the field of environmental science, e.g. for offices commissioned with environmental impact assessments (EIA) and subsoil surveys. Activities in the field of renewable energies are also gaining in importance. Currently, only a Master's degree is accepted as a professional qualification in most of the above-mentioned occupational fields. The Master's degree also qualifies students for doctoral studies.

3. Aims and Purpose of the Studies

The three-semester Master's program provides a sound theoretical and practical training in geosciences – the study of the earth's systems - and leads to the degree of "MSc in Geosciences". Depending on the specialization module, knowledge and skills are expanded in Applied Atmospheric Sciences, Aquatic and Isotope Biogeochemstry, Landscape Systems, Palaeoclimatology and Quarternary Geology, Palaeoecology and Freshwater Ecology or Sustainable Resource and Soil Management. Emphasis is placed on global change, land use change, natural hazards, sustainability, aquatic ecology, paleoecology, and soil ecology. The possibility of taking courses from other departments in addition to the chosen specialization ensures a broad range of subjects as well as the ability to set individual priorities. In the Master's program, greater emphasis is placed on independent work, which is an important prerequisite for successful professional qualification.
Graduates have acquired problem-solving and methodological skills (e.g. geosystem modeling and environmental analysis) as well as social skills (e.g. teamwork, project management).
With the Master's thesis, graduates learn the ability to plan and conduct their own research project and to present the results in oral and written form. At the same time, the Master's thesis provides an insight into basic and applied environmental research with the challenges that arise in terms of planning, execution and implementation of the results.

4. Subject Areas and Elective Options

4.1 Applied Atmospheric Sciences

The specialization Applied Atmospheric Sciences offers a range of courses to those students who want to study chemical and physical processes in the Earth's atmosphere more intensively. Natural trace gases and aerosol particles and man-made air pollutants play an important role. The impact of air pollutants on human health and the primarily human-induced change of the global climate with its regional characteristics and peculiarities represent an important challenge for society and politics of our time.
In the context of this specialization module, advanced aspects of atmospheric chemistry and atmospheric physics are taught, as well as important methodological skills that are required in professional life or further research work. These include, for example, the acquisition, analysis and interpretation of atmospheric measurement data obtained in laboratory or field experiments.
Graduates with the specialization module Applied Atmospheric Sciences have a profound knowledge of atmospheric chemical and physical processes and their effects on air quality and climate. They master working methods and processes, which are required e.g. in the working environment of air pollution control. The main focus of research and teaching in atmospheric sciences at the University of Basel is on atmospheric chemical processes and the development of analytical methods for their investigation. For current research projects and possible master thesis topics see the website of the Atmospheric Sciences Research Group.

4.2 Aquatic and Isotope Biogeochemistry

The focus of the specialization Aquatic and Isotope Biogeochemistry is an in-depth understanding of biogeochemical cycles and microbial processes, especially in aquatic environmental systems (ocean, lakes, rivers, groundwater). Biogeochemistry represents an important component of geoscience teaching, which deals with (micro-) biological, chemical, but also physical processes that influence the chemistry of water bodies and the exchange of trace gases (e.g. CO_2, CH_4, N_2O) with the atmosphere - on regional and global scales. Biogeochemists are also concerned with how aquatic ecosystems respond to environmental changes (e.g., warming, eutrophication/pollutants, increased greenhouse gas concentrations), what this means for living conditions in these systems, and the role they play in the global climate system (e.g., methane emissions in lakes). Research and teaching in the Aquatic and Isotope Biogeochemistry major are increasingly concerned with (microbial) metabolic reactions and the geochemical and molecular fingerprints they leave in natural waters and sediments. Biogeochemistry uses state-of-the-art methods of gas and elemental analysis, biomarker analysis, isotope geo-chemistry and molecular microbiology. In laboratory experiments as well as in field studies, microbial processes are identified, elemental and greenhouse gas budgets are quantified and the most important regulatory mechanisms are better understood. Ecological/biogeochemical findings from modern aquatic systems serve as a basis for the reconstruction of past environmental conditions by means of geochemical measurements of so-called proxy indicators - e.g. in sediment cores from lakes. This provides direct links to other specializations (e.g. 4.5 Paleoecology and Freshwater Ecology).
The specialization Aquatic and Isotope Biogeochemistry offers a good basis for geoscientists with a strong interest in questions at the intersection of geosciences, environmental chemistry and microbial ecology. Current research projects and possible master thesis topics are available on the website of the research group.

4.3 Landscape Systems

The object of study of the Landscape Systems specialization is the Critical Zone of the Earth's surface, i.e. the inter-face between atmosphere, soil, rocks, waters, vegetation and wildlife, which is used and shaped by humans as a basis for life. Accordingly, Landscape Systems is an interdisciplinary field with natural and social science content. It places knowledge about physical, socio-economic processes in the concrete context of places and regions and thus conveys a differentiated picture of the various cultures, economic forms, political and social systems, physical environments and landscapes that shape our earth. The focus in Basel is on the analysis of human-environment relationships. In this context, the scientific "Physical Geography" places nature and landscape in the foreground and examines the structure and dynamics of the physical environment and the processes occurring within it. In the analysis of land use changes, these natural scientific factors are taken into account, but humans are placed in the center. The goal of the Landscape Systems specialization in the MSc program in Geosciences is for graduates to develop a critical understanding of the major processes and consequences of global environmental change for landscape systems and the associated risks to environmental services (water, food, energy, etc.). The assessment, representation and modeling of environmental change as well as its management are at the core of the course. The analysis of landscape systems as a tool is used to understand complex geoscientific structures and processes and to analyze them scientifically in time and space with the help of models. In addition, the land use change major offers the opportunity to analyze socio-economic factors such as population dynamics, dietary habits, or agricultural and energy policies in interaction with biophysical factors such as climate change. The Landscape Systems major is designed to provide students with the opportunity to specialize in the areas of Surface Processes and Landscape Change or Geographic Information Systems and Remote Sensing. In this way, they prepare themselves for the topic of their chosen master's thesis, and they can also adapt their specialist knowledge and methodological skills to the The Landscape Systems major, with appropriate additional pedagogy, provides the professional requirements for teaching geography in middle and high schools.

4.4 Palaeoclimatology and Quarternary Geology

As part of the Master of Geosciences program, the Palaeoclimatology and Quaternary Geology specialization focuses on the Quaternary, the youngest geologic period in Earth's history. The Quaternary covers the last 2.66 million years and is characterized by cyclic climate fluctuations and extensive glaciations that affected and changed all relevant components of the Earth system. The specialization module Palaeoclimatology and Quaternary Geology provides students with a basic knowledge of the controlling factors and the course of Quaternary climate fluctuations and shows how these can be determined using geochemical investigations of various geological and biological climate archives. This knowledge helps students to understand the effects of climate variability on fundamental geological,

geochemical and biological processes and cycles and is also essential to correctly classify the present anthropogenic influences on the Earth system. The specialization module Palaeoclimatology and Quaternary Geology allows students to gain a deeper understanding of Quaternary geology, with a special emphasis on the geomorphological changes and complex sedimentation processes that led to the deposition of Quaternary sediments. A thorough knowledge of these fundamental aspects of Quaternary geology plays an important role for the protection of Quaternary aquifers, the assessment of natural hazards, the exploitation of raw materials and a better understanding of the development history of valleys in the Alps and Alpine foothills, which are the main settlement areas in Switzerland. The questions and topics of the master thesis are mainly from applied geology, geo-chemistry and the exogenous field (sedimentology). The research methods include the most important geochemical, geomaterial and geophysical methods. Practical relevance is enhanced by a wide range of excursions, block courses and interdisciplinary seminars. Students who have completed a Bachelor's degree in Geosciences with a specialization in Geography and Geology and a Master's degree in Geosciences with the specialization module Palaeoclimatology and Quaternary Geology fulfill the most important requirements of the professional association CHGEOL concerning professional qualification as a geologist.

4.5 Palaeoecology and Freshwater Ecology

The specialization Palaeoecology and Freshwater Ecology deals with both paleoecological and current ecological research topics. The study of the ecology and biogeography of indicator organisms, the long-term evolution of ecosystems, or changing species ranges in the past and present are the focus. Students learn about long-term as well as short-term ecological mechanisms and processes. It analyzes how ecosystems, species, populations, and biodiversity respond to natural and anthropogenic environmental change and how they are affected by drivers of global environmental change.
Palaeoecology studies paleoecological indicators in environmental archives to reconstruct past changes in ecosystem states and environmental conditions. This includes the influence of early and post-industrial human activities on lakes and landscapes. Studies of modern ecosystems to calibrate paleoecological indicators also play an important role.
Freshwater Ecology focuses on the ecology of springs and small streams. The focus is on a deeper understanding of the ecosystem functions of springs, the evolutionary adaptations of spring organisms and their distribution. Anthropogenic stress factors such as global environmental change and pesticide contamination are also addressed.
In the specialization Palaeoecology and Freshwater Ecology, students learn to understand and assess ecosystem changes and ecological environmental problems in a networked, interdisciplinary manner and on different spatial and temporal scales using the model systems discussed and studied. The major therefore provides a good foundation for geoscientists with a strong interest in issues at the transition between geoscience and biology, especially ecology. Current research projects and possible master thesis topics are published on the website of the Geoecology Research Group.

4.6 Sustainable Resource and Soil Management

An important goal of the specialization Sustainable Resource and Soil Management is an in-depth process understanding of biogeochemical cycles and soil science issues. On the one hand, the focus is on material cycles in soils, in particular the transfer of materials and energy between soils, the atmosphere, lithosphere and hydrosphere. On the other hand, material cycles and ecosystem processes and their modification by man and global change play a major role.
The understanding of the functioning and effects between the individual compartments of an ecosystem is of great importance for the solution of today's environmental problems, especially under the aspect of climate and land use change. In addition to a distinct understanding of processes, the field of tension between the use of an ecosystem by humans on the one hand and the protection of the ecosystem with regard to the sustainable preservation and management of these systems on the other hand is also the goal of the training. On the basis of the understanding between function and effect of the compartments of an ecosystem, several courses focus on the resource soil in order to impart the ability to be active in interdisciplinary problems in connection with human use. Given the current and future environmental problems, it is of particular importance to train natural scientists who are able to facilitate understanding between the disciplines and thus take on the coordination of interdisciplinary tasks as a whole.
For current research projects and possible master thesis topics see the web pages of the Environmental Geosciences Research Group.

5. Information, Advice, Transfer of Study and Examination Credits

5.1 General information and advice

(a) Student Administration Office of the University of Basel, https://www.unibas.ch/de/Studium.html, Petersplatz 1

(b) Basel Student Guide, published by the Basel Student Advice Center https://www.unibas.ch/de/Studium/Beratung/Studienberatung.html

(c) Student Advice Center of Basel-Landschaft (Wuhrmattstr. 23, 4103 Bottmingen, tel. +41 (0)61 552 29 00, and Rosenstr. 25, 4410 Liestal, tel. +41 (0)61 927 28 28, and

(d) University of Applied Sciences and Arts Northwestern Switzerland (http://www.fhnw.ch/)

5.2 Information and advice about studying Geosciences

(a) Administration office for the Geosciences degree program (email: Rosmarie.Gisin@unibas.ch, tel. +41 (0)61 207 36 45)

(b) Website for the Geosciences degree program: https://geo.unibas.ch/de/

(c) Geosciences specialist group (https://fg-geo.unibas.ch/)

(d) Office of the Dean of Studies in the Faculty of Science, https://philnat.unibas.ch/de/home/, Klingelbergstr. 50, 4056 Basel, tel. +41 (0)61 267 30 54, email: studiendekanat-philnat@unibas.ch

5.3 Transferring study and examination credits

Recognition of academic achievements already completed during the bachelor's degree:
Courses which have been successfully completed in accordance with the guidelines for the Master's program in Geosciences at the Department of Environmental Sciences at the Faculty of Science of the University of Basel - approved by the Faculty of Science on 23 April 2019 - up to and including FS2021 can be credited to the teaching commission in the corresponding modules of the present guidelines without application.

On behalf of the Geosciences Teaching Committee, the Faculty of Science Examination Committee takes all decisions concerning the transfer of applicable study and examination credits as well as credit points that have been earned on another degree program or at another higher education institution.

Procedure: A written application containing a detailed list of all study credits to be transferred is submitted to the Office of the Dean of Studies in the Faculty of Science. A copy of all certificates for the study credits must also be submitted with the application, together with a short summary of the contents of the relevant course(s).

Students are informed in writing about the transfer of study and examination credits as well as credit points. The letter is issued by the Office of the Dean of Studies of the faculty.

Further information is available from the administration office for the Geosciences degree program (email: Rosmarie.Gisin@unibas.ch, +41 (0)61 207 36 45).

6. Program Structure

Specialization Modul	**27 KP** **Election of one specialization** (at least 12 KP from one specialization)
Applied Atmospheric Sciences	
Aquatic and Isotope Biogeochemistry	
Landscape Systems	
Palaeoclimatology and Quarternary Geology	
Palaeoecology and Freshwater Ecology	
Sustainable Resource and Soil Management	
Free election	**8 KP**
Master's examination I	**6 KP**
Master's examination II	**4 KP**
Master's thesis	**45 KP**

6.1 Start and duration of the studies

The duration of the master's studies program is three semesters. In the case of part-time studies, the duration of the studies is extended accordingly. It is usually only possible to begin the master's studies in the fall semester. Starting in the spring semester may result in an extension of the stipulated regular period of study.

6.2 Master's thesis

The master's thesis is the most important component of the master's studies program. For this reason, students should contact a potential supervisor as early as possible. The master's thesis can be supervised by a staff member who has completed his/her habilitation or who holds an equivalent qualification, and who has been approved by the Teaching Committee. The master's thesis can also be completed outside of the university (e.g. with an environmental authority, environmental assessment office, institutions abroad) on the condition that a specialist supervisor can be guaranteed and that the topic of the thesis and its realization has been discussed with the responsible course leader before work on the thesis begins (refer also to the Regulations for Master's Studies in Geosciences).

The master's thesis is worth 45 credit points. Students choose the topic and scope of the master's thesis, as well as the most thematically relevant courses to take, in collaboration with their supervisor. The writing time for the master's thesis begins with the creation of the master's agreement. This agreement officially stipulates the thesis title, beginning date and end date, as well as the supervisor and any co-supervising institution.

The thesis is usually written in German or English; other languages are accepted in agreement with the responsible course leader and with permission from the teaching committee.
Students are permitted to interrupt their master's thesis within the first two months. Stopping at a later point results in a fail grade for the thesis, unless an extension due to illness or an accident is required.
In exceptional cases and with good reason, students may submit an application to extend the writing time to the Geosciences Teaching Committee.

Assessments are carried out in writing by the supervisor and are usually handed over to the office for the degree program six weeks after thesis submission at the latest (see Chapter 7 for the assessment template).

Copies of the thesis: One copy is given to the supervisors, and one copy is stored in the archive of the library of the respective supervisor. In addition, a CD with a copy of the thesis as a PDF is also desirable – for legal reasons, the submission of a CD is to be negotiated between the student and supervisor. In terms of format, ring binding is the only binding format that is not permitted.

6.3 Master's examinations

The Master's examinations consist of two oral examinations with different examiners. In each case, one examiner and one observer are present. The duration of exam I of the chosen specialization (6 KP) is 45 minutes, that of exam II (4 KP) 30 minutes. The examiners (qualified to teach at the university or with equivalent qualifications) can be chosen freely from among the examiners approved by the Teaching Commission. The candidate should contact the examiners in good time (approx. 3 months before the desired examination date) in order to clarify the examination formalities (including the observer - who must have a Master of Science or equivalent degree). A personal registration at the latest 3 weeks before the examination date has to be done at the secretary's office of the study program Geosciences.
The contents of the examinations go beyond the material of individual courses and the aim of the examinations is to document an interdisciplinary understanding of the respective main topics.

6.4 Elective module (8 CP)

The courses can be selected from the entire curriculum of the University of Basel. A maximum of 1 CP can be earned through a poster or a presentation at a scientific conference, and a maximum of 4 CP can be earned from tutorial work, as well as maximum 1 CP for participating in academic self-government. A learning contract must be drawn up with the signatures of the student, the relevant lecturer and the chair of the teaching committee (see Chapter 7 for information about the learning contract) before any assessments are undertaken.

6.5 Specialization module (27 CP)

At least 12 KP from one of the specialization modules must be completed. The modules Applied Atmospheric Sciences, Aquatic and Isotope Biogeochemistry, Landscape Systems, Palaeoclimatology and Quarternary Geology, Palaeoecology and Freshwater Ecology, Sustainable Resource and Soil Management are available. This allows for specialization within the geosciences in one discipline.
In addition, at least 15 CP must be chosen from the total of the six specialization modules. This allows students to strengthen their competencies in the geosciences, either through additional concentration within the chosen specialization or through additions from other specializations.
Information on the current semester is available on the web-site
https://www.geo.unibas.ch/de/laufendes-semester/ , the websites of the different research groups
https://duw.unibas.ch/de/forschungsgruppen/ and the online course catalog of the University of Basel.

Applied Atmospheric Sciences	**Type**	**Min. 12 CP**	**Core**
Current Topics in Geosciences	V	1	•
Current Studies in Geography and Atmospheric Sciences	FS	1	•
Scientific Writing in Natural Sciences	Ü	2	
Measurements and Policy Interactions in Climate Change and Air Pollution	V	3	
Urban Climatology	V	3	
Laboratory Studies of Atmospheric Chemistry	P	3	
Analytical Chemistry of the Atmosphere – Quantifying Climate Change	V	2	
Environmental Epidemiology	V+Ü	1	
Geosciences	E	1	

Aquatic and Isotope Biogeochemistry	**Type**	**Min. 12 CP**	**Core**
Current Topics in Geosciences	V	1	•
Current Studies in Aquatic Biogeochemistry, Stable Isotope and Microbial Ecology	FS	1	•
Scientific Writing in Natural Sciences	Ü	2	
Introduction to Geo-Microbiology and Organic Geochemistry	V+Ü	3	
Marine Biology and Biogeochemistry	GP	4	
Oceanography: Regional Oceanography and Marine Ecosystems	V	2	
Introduction to Research Projects of Environmental Geosciences and Biogeochemistry	V+Ü	Max. 4	
Stable Isotopes in Environmental Geosciences	Pro.	2	
Microbial Ecology and Biogeochemistry of Alpine Aquatic Ecosystems	GP	2	
Hands-on Laboratory Practice in Environmental Microbiology	P	2	
Biotic Indicators and Palaeoecological Reconstruction	V+Ü	2	
Geosciences	E	Max. 1	

Landscape Systems	**Type**	**Min. 12 CP**	**Core**
Current Topics in Geosciences	V	1	•
Current Studies in Geography and Atmospheric Sciences	FS	1	•
Advanced Methods in Scientific Literature Research	V+Ü	2	
Physical Geography and Environmental Change	V	3	
African Ecology	V	2	
Geography for Teachers	V	2	
Use of Unmanned Aerial Vehicles and Rovers in Geosciences	P	2	
Research Course in Geography	Ü	4	
The Interplay of Agricultural, Environmental and Energy Policies	V	3	
Methods in Policy Impact Assessment	V+Ü	3	
Current Research in Land-Use Change	V+Ü	3	
Introduction to Organic Farming Systems	V+Ü	3	
Extended Fieldtrips *(variable intervals)*	E	Max. 5	
Geosciences	E	1	

Palaeoclimatology and Quarternary Geology	**Type**	**Min. 12 CP**	**Core**
Current Topics in Geosciences	V	1	•
Current Studies in Quarternary Geology	FS	1	•
Scientific Writing in Natural Sciences	Ü	2	
Quaternary Geology and Paleoclimatology	V+Ü	3	
Geophysical Methods in Environmental Sciences	V+Ü	2	
Hydrogeological Modeling	V+Ü	2	
Geosciences for Urban Resource Management	V+Ü	2	
Methods in Geochemistry	P	2	
Microscopy of Metamorphic Rocks	V+P	3	
Polarization Microscopy of Magmatic Rocks	V+P	3	
Introduction into Gemmology	V	3	
Methods in Gemmology	P	2	
Analytical Gemmology	Ü	2	
Gemmology	E	1	
Low Temperature Thermochronology	V+Ü	2	
Geosciences	E	1	

Palaeoecology and Freshwater Ecology	**Type**	**Min. 12 CP**	**Core**
Current Topics in Geosciences	V	1	•
Current Studies in Geoecology	FS	1-2	•
Scientific Writing in Natural Sciences	Ü	2	
Terrestrial Palaeoenvironments and Long-Term Ecology	V+Ü	2	
Biotic Indicators and Palaeoecological Reconstruction	V+Ü	2	
Biological and Integrated Pest Management	V+Ü	2	
Current Research in Stream Ecology	S	2	
Ecology and Identification of Freshwater Algae	P	2	
Multivariate Date Analysis in Palaeoecology	P	2	
Extended Fieldtrips	E	Max. 5	
Geosciences	E	1	

Sustainable Resource and Soil Management	**Type**	**Min. 12 CP**	**Core**
Current Topics in Geosciences	V	1	•
Current Studies in Environmental Geosciences	FS	1-2	•
Scientific Writing in Natural Sciences	Ü	2	
Introduction to Research Projects of Environmental Geosciences and Biogeochemistry	V+Ü	Max. 4	
Recent and Classic Research in Environmental Sciences	S	2	
Soil Carbon Dynamics and Global Change	V+Ü	2	
From Anthropogenic Landscapes to Wilderness Management	E Pro.	3 3	
Measurements and Policy Interactions in Climate Change and Air Pollution	V+Ü	3	
The Interplay of Agricultural, Environmental and Energy Policies	V	3	
Transformation of Energy Systems to Renewable Energy Flows 2010-2050	V+Ü	2	
Global Change Resources	V+Ü	3	
Geosciences	E	Max 1	

V = Vorlesung / lecture
Ü = Übung /practical course
FS = Forschungsseminar/ research seminar
E = Exkursion / excursion
GP = Geländepraktikum / practical field course
P = Praktikum / practical course
S = Seminar / seminar

7. Course Certificates and Examinations

Credit points are awarded for the passing of course assessments. These reflect the amount of work that is required to pass a particular assessment.

They are awarded for:

a) Sufficient credits in graded written and oral examinations (at least one grade of 4.0)
b) A pass in ungraded assessments in individual courses
c) Poster/presentation, tutorial work and participation in academic self-government

In geosciences, course assessments for the master's studies program take the form of continuous assessment in accordance with section 11 of the Framework Regulations.

Course assessments for a poster or presentation, tutorial work, or through participation in academic self-government are awarded on the basis of a learning contract in accordance with section 13 of the Framework Regulations.

Master's examinations are conducted in accordance with section 14 of the Framework Regulations.

The master's thesis is assessed based on an agreement (access the form here: https://www.geo.unibas.ch/de/studiengaenge/msc-geowissenschaften/) in accordance with section 15 of the Framework Regulations. The master thesis is graded.
The template for the master's thesis assessment can be found at:
https://www.geo.unibas.ch/de/studiengaenge/msc-geowissenschaften//

Assessments for courses taken as electives outside geosciences are conducted in accordance with the study regulations and guidelines of the respective degree programs.

8. Quality Assurance

The quality of the courses offered is monitored by lecturers through regular student evaluations. Additional evaluations may be recommended or requested by the Geosciences Teaching Committee.