

## Department of Geography

Study guide to the Master of Science programme in

# Geography

Starting in fall semester 2024



#### Imprint

Student Advisory Service Geography and Earth System Science July 2024 http://www.geo.uzh.ch/de/studium



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## 1 Preface

Welcome! We are pleased that you are interested in choosing the Master's study program in Geography at the University of Zurich.

In this guide ("Wegleitung"), the study programme is explained for students starting their studies in the fall semester 2024. For students who have started their studies before fall semester 2024, the study guide of the corresponding year (begin of studies) and transitional regulations are relevant. This study guide describes the structure as well as administrative issues of the MSc programme in Earth System Science (ESS). For further questions, the Student Advisory Service of the Department of Geography (GIUZ) is your first contact point:

Office	Y25 K 10, Campus Irchel, Universität Zürich, Winterthurerstr. 190, 8057 Zürich
Phone	044 635 51 18
Mail	* student-advice@geo.uzh.ch
Opening hours	Two afternoons per week from 13.00 to 16.30 o'clock
	Please check the information on the website for current opening hours.
	Appointments for a meeting can be booked at
	www.terminland.de/giuz-studienberatung

Further information about the study programme and particularly about individual courses can be found on the following websites:

- Website for students of the University of Zurich www.students.uzh.ch
- Commented course catalogue of the University of Zurich https://studentservices.uzh.ch/uzh/anonym/vvz/index.html
- Commented course catalogue of the ETHZ

www.vvz.ethz.ch

To allow students to efficiently plan their studies, an information event about the Master's programme is held at the end of the Bachelor's program. For new students at UZH, usually a short introduction event takes place on the last Tuesday before the start of the fall semester. For further information please contact the student advisory service.

More information on the Master's programme in Geography can be found on the website of the Department of Geography:

https://www.geo.uzh.ch/en/studying/master.html

Student advisory service of the Department of Geography,

Leah Heuri & Oliva Schilling



## 2 Geography at the University of Zurich

At the Department of Geography we examine existentially important questions about the present and the future of the living environment on our planet. Based on the motto *"One Earth – Many worlds"*, we ask questions such as: How do humans interact with their environment? What kind of spatial relations develop between humans and their environment? Global change, neoliberalisation, virtual worlds, environmental changes and urbanisation are some of the core challenges Geography touches upon.

The study programme in Geography (GEO) offers a unique combination of research perspectives and unites approaches of natural, social and computational sciences. The Master's study programme in Geography allows for specialisations in individual research fields of Geography. Profound knowledge of ongoing research projects is imparted and critical discussions of socially relevant topics are encouraged in our programme. Furthermore, students' intellectual and communicational skills are promoted.

#### Aims of the study programme

- Students understand the functioning and transformation of the living space on a local, regional and global scale.
- Students are able to implement approaches of natural, social and computational sciences to analyse
  actual questions appropriately.
- Students are able to act responsibly as interdisciplinary thinking human beings.

## 2.1 Educational foci

The Department of Geography of the University of Zurich has the following foci of education:

#### Human Geography

- Economic Geography (WGG): Geographies of global commodity chains and transnational markets; work, gender and space; urban and regional development
- Labour Geography (LGG): Transformations of forms of work, working conditions and labor markets with a focus on digitalization, migration, gender and care work
- Political Geography (PGG): Geographies of violence and power, geographies of moral, political ecology, development studies
- Social Geography and Urban Studies (SURB). Transformation of cities and urban societies, urban marginalization, global socio-spatial inequalities and possibilities for urban change
- Space, Nature and Society (SNS): Social and spatial aspects of nature, its perception, meaning, value, appreciation, appropriation, and development

#### Physical Geography

- **Geochronology (GCH):** Dating of soils, landscapes and surface processes
- **Glaciology and Geomorphodynamics Group (3G):** Climate history and climatic consequences, natural hazards, research on ice ages and high mountain areas
- Hydrology and Climate (H2K): Water cycles, catchment hydrology, hydrological processes, climate impact on water resources
- Soil Science and Biogeochemistry (2B): Carbon cycle in the system of plant and soil, geography of vegetation and geo-ecology, history of landscape



#### **Remote Sensing**

- Remote Sensing Laboratories (RSL): Generating products of remote sensing of the earth surface, classification of land use, SAR and LIDAR, image spectrometry, instruments and methods for capturing environmental problems and processes with the use of data generated with satellites, planes or drones.
- Remote Sensing of Water Systems (RSWS): Developing and applying novel approaches building upon coupled models and observations to advance water systems research
- Earth System Sciences (ESS): Co-evolution of social-ecological systems, biosphere- and hydrospherehuman interactions
- **Spatial Genetics (GS):** Mapping the spatial distribution of plant genetic diversity, including its characteristics and effects on ecosystem functionings.

#### **Geographic Information Science**

- Geographic Information Visualisation and Analyses (GIVA): Geographic information visualisation, science in spatial cognition, methods of analysing space, application of geographic information technologies in human and social sciences
- **Geographic Information Systems (GIS):** Analysis of spatio-temporal data, pattern recognition in spatial data, automatic generation of maps, GIS in protected areas, spatial environmental modelling
- Geocomputation (GC): Methods of geoinformatics with a focus on uncertainties in environmental modelling, methods of spatial localisation and search in text and images, extraction of geo-semantical information from unstructured geographical sources

## **3** Occupational fields for Geographers

Geographers can benefit from a wide occupational field in the job market. Due to Geography's broad scope, employment can be found in a variety of fields, although graduates might have to compete with graduates of other disciplines for the same jobs. Nevertheless, skills, which are high in demand – teamwork, project work and interdisciplinary collaboration – are acquired in the Geography study programme.

#### Selected fields of work

- Spatial planning: City, regional & land use planning, site evaluation, city and regional research, economic and structural policy, economic promotion, disposal, transport and mobility research, traffic planning, tourism
- Environment, landscape and human beings: Environmental and landscape planning, nature and environment protection, natural hazards, biotope mapping, geo-ecology, geo-technology, ecosystem research, ecological management, environmental economy, soil protection, soil science, climatic research, hydrology, soil protection, development cooperation, international organisations, insurances, meteorology
- Information and communication: Press and public relations, media, publishing, statistics, market research, information services, remote sensing, (computer) cartography, geo-informatics (GIS), banks, museums, libraries
- Schools: Teaching at secondary, diploma, vocational and other schools



## 3.1 Employment Situation

After graduation geographers find jobs both in Switzerland and abroad. Thanks to the social importance of topics such as environmental protection, urban and regional planning or natural hazards, the majority of graduates in geography will continue to find interesting and challenging work in the future. Likewise, the importance of electronic data processing will continue to increase, so that a positive influence on the employment situation of geographers can also be expected in this area in the future.

Examples of specific job descriptions and information on the current employment situation are available at the following link:

http://www.geo.uzh.ch/de/studium/nach\_dem\_studium.html

## 4 MSc studies at the UZH Faculty of Science

The courses at the science faculty ("Mathematisch-naturwissenschaftliche Fakultät", MNF) are structured into Bachelor's and Master's degrees. The Master's degree is based on previous knowledge acquired during the Bachelor's programme. Further information about our Bachelor's programme is provided in the Bachelor's degree study guide.

The Master's programme conveys advanced scientific knowledge and enables students to carry out independent scientific work. The structure of the Master's programme at GIUZ is described below.

After obtaining a Master's degree in Geography, excellent students can strive to acquire a PhD degree. This depends on available funds and the acceptance in a promotion programme and/or an advisor is found willing to lead a dissertation project.

Moreover, a Master's degree is the fundamental requirement for acquiring the teaching diploma for high schools. The didactical education is provided by the Institute of Education (IfE) of the UZH (see below).

Within the study programme "Master of Science in Geography", a specialisation in a specific field of geography is possible, but not mandatory. For a successfully completed Master's programme in Geography, the diploma "Master of Science in Geography" (MSc UZH in Geography) is awarded.

## 4.1 Enrolment

Matriculation is necessary to follow a study programme at UZH. All students have to be enrolled as long as they require services of the University. These services include the participation in courses, the claim for counselling and support, the use of libraries and IT services, taking exams, as well as the validation of degrees. Semester fees have to be paid up to and including the semester, in which the Master's exam is taken and the validation of the graduation took place, even if no other modules are taken that semester.

#### Registration

Before the first matriculation students need to register at the Student Administration Office of UZH. This is also the case after a deregistration due to the interruption of studies. The requirements for an admission to the University of Zurich are explained under:

https://www.uzh.ch/studies/application.html



#### **Application deadlines:**

- Fall semester: 30th of April
- Spring semester: 30th of November

The matriculation is renewed every semester through the online semester enrolment tool at:

https://www.students.uzh.ch/de/studyadmin/registration.html

Booking modules at ETHZ once requires a separate enrolment as external student at the ETHZ via

https://ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html

## 4.2 Begin of studies and study duration

Generally, the begin of Master's studies is in the fall semester. If students begin their Master's study programme in spring semester they may need to consider certain preconditions for modules (e.g. module B is only bookable after completion of module A).

The standard study duration for MSc programmes is three or four semesters. After studying 12 semesters, the semester fee will be doubled. The Faculty Board might permit exceptions upon handing in a justified request. In any case, before a student completes 12 semesters, they should contact the student advisory service to discuss the further course of studies.

Further information can be found on p. 4 of the Rahmenverordnung (German).

https://www.mnf.uzh.ch/de/studium/reglemente/bachelor-master.html

## 4.3 The credit-point system

Every degree programme at UZH uses the principle of the European Credit Transfer System (ECTS)). A Master's degree consists of 90 or 120 ECTS credits (if a minor is added). For all coursework, students get ECTS credits based on an official assessment. The following principles apply:

- ECTS credits are awarded only after an official assessment.
- One ECTS credit corresponds to a workload of 25-30 hours, which includes lectures and time for individual work (self-study, solving exercises, preparation for exams, etc.).
- 30 ECTS credits can be gained per semester in full-time study.
- Only integer ECTS credits can be obtained.

Students have online access to their transcript of records (overview of all passed and failed modules) at any time. The student affairs office of the faculty needs to be informed about any discrepancies within four weeks after a module has ended.

https://www.students.uzh.ch/de/studyadmin/study/transcript.html



## 4.4 Structure

The degree programmes at the MNF are structured into Bachelor's and Master's degrees (Bachelor of Science: BSc; and Master of Science: MSc). For the enrolment in a Master's curriculum, a Bachelor's degree in geography or a similar subject is required. The Master's programme provides in-depth scientific education and prepares candidates for autonomous scientific work. The structure of the Master's programme is explained below.

The courses of the Master's study programme are structured into compulsory modules, core elective modules and elective modules. Students can decide themselves which and how many modules they like to book and complete each semester. Most modules are taught during one semester (fall or spring), yet, some modules cover two subsequent semesters. In addition, some modules require the (successful) completion of other modules. This and further information on individual modules are provided in the online course catalogue.

#### https://studentservices.uzh.ch/uzh/anonym/vvz/index.html

The MSc degree also forms the basis for pursuing a teaching education for high school ("Lehrdiplom"). The didactical education is provided by the Institute of Education (IfE) of UZH. This track requires excellent knowledge of the German language and a tailoring of the MSc curriculum to modules that are compulsory for the teaching diploma.

http://www.geo.uzh.ch/de/studium/lehrdiplom.html http://www.ife.uzh.ch/de/llbm/lehrdiplomfuermaturitaetsschulen.html

## 4.5 Structure of major and minor

The Bachelor's (180 ECTS credits) and Master's study programmes (90 or 120 ECTS credits) at the Faculty of Science (MNF) are divided into major and minor subjects. Within the Master's programme (90 ECTS credits), no minor is included. Nevertheless, an additional minor (30 ECTS) can be completed if the study programme is extended to 120 ECTS credits.

At the Faculty of Science (MNF) and the ETH Zurich (ETHZ), a new minor can be started at Master's level. At other faculties, a minor on Master's level may require a certain minor at Bachelor's level. A list of all major and minor subjects of UZH can be found on the following website.

www.degrees.uzh.ch

## 4.6 Compulsory, core elective and elective modules

The study programme includes three different types of modules: compulsory, core elective and elective modules. Modules can contain one or more course types such as lectures, exercises, seminars or field trips. Every module is completed by an assessment. The type of assessment depends on the module and is published in the online course catalogue.

There are different kinds of modules:

- Compulsory modules are mandatory for all students of a certain study programme. Students who fail
  the assessment of a module can repeat it once. If the repetition results in a fail, the student is excluded
  from all study programmes, which contain this module as a compulsory module.
- Core elective modules are modules, which can be chosen from a given list. If a student fails the assessment of a core elective module twice, the module can be replaced by another core elective module (that needs to be passed).
- Elective modules are modules, which can be selected freely. Elective modules can be substituted without restrictions.



## 4.7 Booking modules

Information about modules can be found in the online course catalogues ("Vorlesungsverzeichnis"), see links below. The general structure of a curriculum is defined in the study guide, but the students can compose individual schedules by themselves.

https://studentservices.uzh.ch/uzh/anonym/vvz/index.html

#### www.vorlesungen.ethz.ch

After having paid the semester fees it is possible to book modules online. The faculty's deadlines have to be considered. It is recommended to book modules at earliest convenience. For the MNF, the online booking tool opens around five weeks before the lecture period. Booking modules is usually possible until one week after the start of lectures, however, some modules need to be booked earlier. A deregistration of modules at the MNF is usually possible until the first week of the semester.

https://www.mnf.uzh.ch/en/studium/termine/modulbuchung-und-stornierung.html

Modules at ETHZ must be booked separately. This requires prior registration as a "special student" at ETHZ, which must be confirmed each semester. Afterwards, ETHZ modules can be booked directly online via myStudies.

https://ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html

www.mystudies.ethz.ch

#### 4.8 Assessments

Registration for Exams

With the booking of a module at UZH, students are automatically registered for the assessment of the respective module. In most cases, you can unsubscribe from the module, including the exam, without specifying any reason within the first week of the lecture period but check the course catalogue for specific modules. A deregistration after the cancellation deadline is only possible upon submission of a medical certificate or a written request. If students are ill on the day of the examination, they must submit an application for cancellation within 5 working days of the examination and hand in a medical certificate.

Applications are made through the online student portal. Afterwards, missed exams (no-shows) will be graded as failed. In the final diploma, only passed assessments will be listed.

#### http://launchpad.uzh.ch

For modules at the ETHZ the exam registration has to be carried out separately. Depending on the type of examination, a deregistration is possible until shortly before the exam.

Students have online access to their transcript of records (overview of all passed and failed modules) at any time.

https://www.students.uzh.ch/de/studyadmin/study/transcript.html



#### **Grading of Exams**

The module coordinator is responsible for assessments. The form of the assessment – written exam, assignments, or other tasks – is communicated in the course catalogue. They can be graded (1-6) or marked with a pass/fail.

At UZH, you can see the results in your personal account (<u>https://www.students.uzh.ch/de/studyad-min/study/transcript.html</u>) after about 4 weeks. Afterwards, the Faculty Board validates the results before they are final. You have the right to see the graded exam and to consult the teacher(s) who graded the exam. The date and time will be communicated by the teacher or by the secretary.

At ETHZ, the results are first validated and then disseminated via MyStudies (**www.mystudies.ethz.ch**). At a later stage, the results are automatically communicated to UZH and listed for your degree.

#### **Regulations for repeat examination**

The regulations follow those of the institute that offers the module, i.e. the UZH department of Geography or the ETHZ department of Earth Science. Usually, exams can be repeated once for every module. After two failed attempts, the concerning module cannot be booked anymore. In the unfortunate case of two failed attempts for a compulsory module, all curricula, which require that specific module, cannot be continued. If a student fails a core elective module at the repeat examination, it can be replaced once by another core elective module, also with the possibility to repeat the exam once. Elective modules can be replaced without constraints. After a failed module the students need to register for the repeat exam. The application for the repeat exam is binding and it is not possible to unsubscribe. Students can also opt to repeat the entire module.

The described regulations are also applicable for the Master's exam. A one-time repetition of the MSc thesis, with a new topic, is possible.

## 4.9 Mobility

It is possible to spend one semester at another university. This needs to be discussed with and approved by the scientific coordinator of the Department of Geography. UZH must recognize the host university and the modules must fit within the scope of the GEO curriculum. The obtained foreign credit points can count towards the free-choice part of the master and, under certain conditions, towards core elective modules (see section on the MSc structure). In the end, 60% of the 90 ECTS credits need to be covered by UZH modules. Note that ETHZ modules cannot count towards these 60%. For this reason, the Geography curriculum only allows for one exchange semester. The Faculty Board can make exceptions, based on a written request.

Studying at another university in Switzerland or abroad is a very exciting and valuable experience. Furthermore, it offers the possibility of improving a foreign language. All necessary information about studying abroad can be found on the website of GIUZ. The student advisory service supports students in planning mobility stays at other universities.

Please note: Applications must be submitted until 15th of January for the following academic year (autumn to autumn!). This means that the registration deadline is the same for students who wish to take up a mobility stay in the spring or autumn semester.

http://www.geo.uzh.ch/de/studium/austauschprogramme.html



## 4.10 Degree

The diploma certificate is written in German and in English. It lists the weighted average of the grades, which is calculated following the study regulations. If applicable, separate grades are listed for the major and for the minor subject. A list with all completed modules with the ECTS credit points is attached, as well as a "Diploma Supplement" which summarizes general information about the educational background in Switzerland and particularly at the University of Zurich and about the specific MSc curriculum.

The Master's degree does not automatically get issued upon completion of all necessary ECTS credits. An online request has to be submitted by the student in order to obtain the Master's degree. If all requirements are met, the corresponding title will be validated at the next meeting of the Committee for Student Affairs by the Faculty of Science, but only if the application was submitted at least four weeks before the meeting. Otherwise, the diploma will be issued after the subsequent meeting.

https://www.geo.uzh.ch/en/studying/master/degree.html http://www.mnf.uzh.ch/en/studium/wie-studieren/termine.html

## 4.11 Transfer of additional credits

It is possible to credit up a maximum of 10 additional ECTS credits to each study unit (major and minor). This can include modules of the UZH and the ETHZ, as well as language courses of the language center of UZH and ETHZ. A maximum of 4 ECTS credits can be credited for language courses (BSc and MSc together). Only full modules qualify (i.e. not individual courses or half modules) and compulsory modules cannot be excluded from the calculation.

The additional ECTS credits are listed in the final transcript of records as "academic achievement not counted towards degree" but are not included in the calculation of the final average grade.

## 4.12 Official regulations for Master's degrees at MNF

The following regulations are (legally) binding:

- The framework of academic regulations ("Rahmenverordnung") contains the general regulations for all BSc and MSc studies at the Faculty of Science at the University of Zurich.
- The study regulations ("Studienordnung") contain information about the individual study degrees at the MNF. This concerns for example modules, exams and credit points.
- This **guide** ("Wegleitung") provides practical information about the study programs in Geography and Earth System Science at the Department of Geography.

Both the framework of academic regulations and the study regulations are published on the MNF website:

www.mnf.uzh.ch/en/studium/reglemente.html#3



## 5 The MSc programme in Geography

## 5.1 General information

For an admission without restrictions to the Master study programme in Geography, a Bachelor's degree in Geography from the Faculty of Science of UZH – or an equivalent degree from another recognised university – is required. The faculty decides about a possible admission for students with a degree from a university of applied sciences.

With any geography-related Bachelor's degree from a recognized academic institution, you can apply for the Geography master. Admission to the programme depends on your academic record and may require taking BSc geography modules. These credit points are additional to the 90 ECTS credits of the master. The list of BSc modules to be taken is tailored to your background and provided during the application procedure (indication of restriction see Table below). Please note that most BSc courses at UZH and at ETHZ are only offered in German. Non-German speakers may have to finish equivalent modules at their home institute or at another recognized university.

The information given here is an indication; please contact the Student Advisory Service with your specific case. An official assessment is only given at the time of admission. The final list of additional requirements depends on the choices during your Bachelor's curriculum and is provided during the application procedure.

If you apply for the GEO Master from outside UZH you have to submit a motivation letter, your CV and the full overview of your BSc degree in the online admission procedure. For details, see

#### https://www.uzh.ch/en/studies/application/master.html

It is recommended to apply for a start in September (fall semester) but it is possible to start in spring. In the case of admission with additional requirements, you can start with those modules anytime.

The MSc program is almost exclusively taught in English. Few MSc modules can be offered in German but none of these are compulsory.

The Master's programme enables a specialisation within the field of geography. The Master's degree qualifies for academic jobs, builds the professional scientific foundation for qualification as a secondary school teacher and is necessary for a PhD.

## 5.2 Structure

The figures on the next page show the general structure of the Geography Master's programme. It includes an interdisciplinary compulsory module, core elective modules, elective modules, the Master's thesis, and the Master's exam. It is possible to complete an additional minor of 30 ECTS credits which extends the study programme to 120 ECTS credits.

Students with an emphasis (see below) can choose between a 30 ECTS credits and a 60 ECTS credits Master's thesis. This decision has to be made at the beginning of the Master studies, as it influences the general structure of the study programme. Each of the elements is discussed in more detail in chapter 5.4. With a thesis of 30 ECTS credits, a minimum of 30 ECTS credits in core elective modules and up to 24 ECTS credits in elective modules have to be completed. With a thesis of 60 ECTS credits, a minimum of 18 ECTS credits in core elective modules and up to 6 ECTS credits in elective modules have to be completed. Both options sum up to a total of 90 ECTS credits if no minor is chosen.



## 5.3 Emphasis within the Master of Geography

An emphasis on one thematic subject area (TSA) in Geography is possible within the Master's programme. This emphasis is mentioned in the Master's diploma in addition to the Master's title. This will be in the form of "Master of Science in Geography, X", with "X" being replaced by the emphasis.

To obtain a Master's degree with a designated emphasis within the Master of Geography with a 30 ECTS credits Master's thesis, a minimum of 18 ECTS credits in core elective modules and the Master's thesis have to be completed within the field of the emphasis. With a 60 ECTS credits Master's thesis (which is only possible in the TSAs Physical Geography and Remote Sensing), the designated emphasis within the Master of Geography is decided in consultation with the supervisor and recorded on the Master's agreement.

#### The following emphases are possible

- Physical Geography: With a 30 ECTS Master's thesis: The 18 ECTS credits of core elective modules need to be chosen from at least two of the four units of Physical Geography (e.g. two modules out of 3G and one out of 2B, H2K or GCH or one module each out of three different units)
- Human Geography
- Geographic Information Science and Systems
- Remote Sensing
- General Geography: In addition to the emphases, it is possible to obtain a Master's degree in General Geography. This emphasis is especially suitable for candidates studying towards a teaching diploma for upper secondary education. For the degree in General Geography a minimum of 6 ECTS credits in core elective modules have to be chosen out of three TSAs (Physical Geography, Human Geography, Remote Sensing and Geographic Information Science). The Master's thesis may be written in any of the TSAs from which core elective modules were chosen.



wi	th 30 ECTS cred	lits Master's the	sis		with 60 ECTS credits Master's thesis						
СР		8. Semester (FS)	9. Semester (HS)	CP	C	7. Semester (HS)	8. Semester (FS)	9. Semester (HS)	СР		
1	GEO 410 Geography.Matters.	Core elective modules	GEO 511 Master's thesis	1	1	GEO 400 Master's agreement 0 CP	GEO 510 Master's thesis		1		
2			Master's thesis may also be	2	2	050 110	1	be written over three semesters	2		
3			written over two semesters	3	3		(max. 18 months).	be written over unde semesters	3		
4			(max. 12 months).	4	4				4		
5	4 CP Core elective modules			5	5				5		
	Some core elective modules				6	4 CP					
6	span over two semesters.			6		Some core elective modules			6		
7				7	7	span over two semesters.			7		
8				8	8				8		
9				9	9				9		
10				10	10				10		
11				11	1'				11		
12		ca. 12 CP		12	12	2			12		
13		Elective modules		13	1:	5			13		
14				14	14				14		
15				15	18	5			15		
16				16	10				16		
17				17	17				17		
18				18	18				18		
19				19	19				19		
20				20	20				20		
21				21	2'				21		
22	ca. 18 CP			22	22	2			22		
23	Elective modules			23	23	18 CP			23		
24				24	24	Elective modules			24		
25				25	28	5			25		
26				26	26	3			26		
27				27	2	·			27		
28				28	28				28		
29		ca. 16 CP		29	29				29		
30					30	6 CP					
	ca. 8 CP		30 CP					60 CF			
31			Master's exam	31	3			Master's exam	31		
32			2 CP	32	32	2		2 CF	32		

#### General structure of the Geography Master's programme

Overview		
Compulsory modules Core elective modules Elective modules	HS: FS: CP:	fal sp E0

S: fall semester

- : spring semester
- ECTS credits



## 6 Structure and content of the MSc programme

The curriculum covers 90 ECTS credits and contains compulsory, core elective modules and additional elective modules. Students can choose between a 30 ECTS credits and a 60 ECTS credits Master's thesis (the latter only in the TSAs of Physical Geography and Remote Sensing). This decision has to be made at the beginning of the master studies, as it influences the general structure of the study programme.

#### **Explanation of the abbreviations** (derived from the German expressions)

LAPA	Explaination of the appreviations (derived from the Germa						
Course type		Asses	ssments				
VL	Lecture	PP	Poster/presentation				
UE	Practical course	MP	Exam				
SE	Seminar	SA	Paper/essay				
E	Field trip	KW	Calendar week				
BL	Block course						
VU	Lecture practical course						

PR Internship

## 6.1 Compulsory modules

ECT S	Module title	Туре	Semester	Assess- ment
4	GEO 410 Geography. Matters.	VU	HS	SA, PP, MP
30	GEO 511 Master's Thesis	SA	HS/FS	SA
60	GEO 510 Master's Thesis*	SA	HS/FS	SA
2	GEO 512 Master's Exam	PP	HS/FS	PP

\* If GEO 510 (60 ECTS credits Master's thesis) is chosen, a Master's agreement (GEO 400) needs to be made in the first semester of the Master's programme. GEO 400 is an additional compulsory module that needs to be booked by the student.

#### 30 ECTS credits Master's thesis (GEO 511)

The 30 ECTS credits Master's thesis has to be completed within one year (12 months). The amount of work corresponds to a student working on their Master's thesis 100% for half a year or 50% for one year respectively. To successfully pass, a minimum grade of 4 is required. In the event of an insufficient grade, a new thesis with a different topic has to be written.

#### 60 ECTS credits Master's thesis (GEO 510)

The 60 ECTS credits Master's thesis has to be completed within one and a half years (18 months) and is only possible in the TSAs Physical Geography and Remote Sensing. The amount of work corresponds to a student working on their Master's thesis 100% for a year or part-time for one and a half years respectively. To successfully pass, a minimum grade of 4 is required. In the event of an insufficient grade, a new thesis with a different topic has to be written.

A 60 ECTS credits thesis is meant to be more research oriented than a 30 ECTS credits thesis and is recommended for students willing to publish a scientific paper based on their thesis. Further, it is a good option for students who consider doing a PhD after their master studies.

To obtain a Master's degree with a 60 ECTS credits Master's thesis, a Master agreement (GEO 400) needs to be made with the supervisor of the thesis during the first semester of the Master's programme. The conditions for a designated emphasis within the Master of Geography are defined in consultation with the supervisor and recorded in the Master's agreement. No supervisor is obliged to offer the 60 ECTS credits Master's thesis.



#### Master's exam (GEO 512)

The Master's exam takes place shortly after submission of the Master's thesis. It consists of a public presentation and a disputation (that is not public). Hereby, the student not only proves to be well-versed in the matter of the Master's thesis, but is also able to position the thesis into the wider context of geographic research.

The Master's exam is passed when the Master's presentation and the disputation together are graded with at least a 4. A failed Master's exam can be repeated once. If the repetition is insufficient as well, a Master's degree in Geography at the Faculty of Science cannot be obtained anymore.

Further information can be found on the information leaflet about the Master's thesis and the Master's exam.

https://www.geo.uzh.ch/en/studying/master/master\_thesis\_exam.html

## 6.2 Core elective modules

The choice of core elective modules determines the emphasis within the Master's study programme. Some of these modules require the prior (successful) completion of other modules (e.g. certain core elective modules from the Bachelor's study programme).

ECT S	Module title	Туре	Semester	Assessment
3	GEO 870 Spatial Statistics	VL UE	HS	SA
3	GEO 871 Retrieving Geographic Information	VU	HS	SA
3	GEO 872 Adv. Spatial Analysis I	VU	HS	SA
3	GEO 873 Cognitive Issues in GIScience	VL UE	HS	SA
3	GEO 874 Introduction to Databases (until KW 44)	VL UE	HS	MP
3	GEO 875 Spatial Databases (from KW 45)	VL UE	HS	MP
3	GEO 876 Introduction to Programming for Spatial Problems (until KW 12)	VL UE	FS	SA
3	GEO 877 Spatial Algorithms (from KW 14)	VL UE	FS	SA
6	GEO 454 Geovisualisation	VL UE	FS	PP, MP
3	GEO879 Mobility Isssues in GIScience	VL UE	HS	PP, SA
3	GEO 880 Computational Movement Analysis	VU	FS	SA
3	GEO 881 Adv. Spatial Analysis II	VL/U E	FS	SA
3	GEO 885 GIScience Project	VL UE	FS	SA
3	GEO 888 GIS for Environmental Monitoring	VU	FS	PP, SA

#### **Emphasis on Geographic Information Science and Systems**



#### **Emphasis on Remote Sensing**

ECT S	Module title	Туре	Semester	Assessment
6	GEO 441 Remote Sensing: Seminar	KO SE	FS	SA
6	GEO 442 Remote Sensing: Spectroscopy of the Earth System	VL UE	HS	MP
6	GEO 443 Remote Sensing: SAR and LIDAR	VL UE	HS	MP

## Emphasis on Human Geography

ECT S	Module title	Туре	Semester	Assessment
6	GEO 421 Development studies	VL	HS	PP, SA
6	GEO 422 Urban Geography: Research and methods	VL	FS	SA
6	GEO 423 Political Geography	SE	HS	SA
6	GEO 425 Political Ecology: From critique to transformation	SE	FS	SA
6	GEO 432 Gender, Work and Space	SE E	HS	SA
6	GEO 433 Global Economic Geographies of Agriculture and Food Systems	SE	FS	SA
3	GEO 835 Geography of Sustainability Transitions	VL	FS	SA
3	GEO 837 Regional Environmental Governance	SE	HS	PP, SA
3	GEO 838 Self-organised Seminar	SE	FS	

#### **Emphasis on Physical Geography**

ECTS	Module title	Туре	Semester	Assessment
6	GEO 411 Field studies on high mountain processes	SE PR, E	FS	SA
6	GEO 463 Soil Science I	VU	HS	SA
6	GEO 417 Environmental archives and age determination	PR BL	HS HS/FS	SA
6	GEO 471 Hydrological field measurements and calculations	VU	FS	PP, SA
6	GEO 475 Hydrological Modelling and Programming	VU	HS	MP, SA
3	GEO 815 Quantification and modelling of the Cryosphere	VU	HS	PP, SA
3	GEO 820 Stable isotopes in ecology and soil science	VU	HS	SA
3	GEO 851 Glacier Mass Balance Measurements and Analysis	VU E	HS	SA
3	GEO 856 The high-mountain cryosphere: processes and risks	VU	FS	MP
3	GEO 857 Snow and Avalanches: Processes and Risk Management	VU	FS	MP
3	GEO 841 Analyzing the plant-soil system - Lecture	VL	HS	PP, SA
6	GEO 842 Analyzing the plant-soil system - Practice	UE	FS	PP, SA



## 6.3 Elective modules

Besides compulsory and core elective modules, elective modules have to be completed. Basically, all modules of the course book of UZH and ETHZ are eligible.

#### From the GIUZ department

- Core elective modules, which are not already taken as such
- Elective modules of the department
- Additional field trips

#### Other subjects

Whole offer of UZH and ETHZ primarily on Master level. Subject to certain restrictions by the responsible field or instructor.

#### Further modules

Other modules, which are a reasonable addition can be chosen, e.g. language and communication courses of the language centre of UZH and ETHZ. A maximum of 4 ECTS credits for language courses can be credited (BSc and MSc together).

#### Internship

See information below

When choosing elective modules, the following points have to be considered:

- Modules can have specific prerequisites that are defined in the course catalogue.
- The content of your elective modules should support your individual study goals.
- Sports courses cannot be credited as elective modules.
- Modules at the ETHZ have to be booked at the ETHZ via myStudies.

#### The following elective modules are offered by the Department of Geography

ECT S	Module title	Туре	Semester	Assessment
1	GEO 717 Google Earth Engine	BL	FS	SA
1	GEO 802 Data Information Literacy	BL	HS	SA
2	GEO 803 Solving Geospatial Problems using MATLAB	BL	HS	PP
3	GEO 805 Natural hazard and risk assessment in high-mountain areas	BL	HS	PP
1	GEO 812 Getting started with R for spatial analysis	BL	HS	-
6	GEO 818 Dendro-Ecology	VL BL	HS FS	SA, PP SA
2	GEO 820 Stable isotopes in ecology and soil science	VL	FS	SA
3	GEO 886 Natural Resource Management of Mountain Areas	VL/U E E	FS	
1-3	GEO 7xx Modules with integrated excursions	E	HS FS	SA



## 6.4 Field trips (GEO 599)

Field trips, about which students will be informed by e-mail by the student advisory service or which are offered by the *Geographie Alumni UZH*, can be taken in the elective section.

#### https://www.geographie-alumni.uzh.ch/de/Exkursionen.html

One field trip day counts as 0.5 ECTS credits, but only whole ECTS credits can be credited. In the case of field trips lasting several days, a maximum of 1 ECTS credit (= 2 days) will be credited. A maximum of 3 ECTS credits (= 6 days) can be credited during the Master's programme. These days do not include field trips, which are part of lectures or exercises.

The crediting of the ECTS credits obtained through field trips takes place once, before completion of the Master's programme by handing in the confirmation form of the attended field trips. On the GIUZ website under "Downloads/Information Sheets" the form "Confirmation form of field trips" can be downloaded. The form must be sent to the student advisory service (student-advice@geo.uzh.ch) by the end of the last semester of the Master's programme.

https://www.geo.uzh.ch/en/studying/downloads.html

In addition, a maximum of 2 ECTS credits for an excursion seminar (GEO777) can be credited to a large field trip (abroad) during the whole Bachelor's and Master's programme (upon announcement).

For GEO 7xx modules with integrated excursions there are no restrictions for crediting in the elective section.

## 6.5 Tutorials

Students who work as tutors in a module offered by the Department of Geography obtain 2 ECTS credits per module in the elective section. During the entire period of study (Bachelor's and Master's studies), a maximum of 5 ECTS credits can be credited.

Tutorials are a useful and recommended addition to the studies and a valuable experience. Tutors support the instructors in exercises and seminars of lower semesters. The correction of assignments is also part of the activity as a tutor. Acquired own knowledge and skills are applied and passed on. Future teachers can collect first experiences in teaching. Apart from the 2 ECTS credits per tutorial, tutors receive a financial compensation as well.

Open positions for tutorials for the following semester are published on the website in the middle of the semester. Students are also informed about open tutor positions and application deadlines by e-mail.

## 6.6 Internships

A research or vocational internship can be a useful addition to an academic education. For a four-week internship 2 ECTS can be credited as an elective module. During the entire study (Bachelor and Master) a maximum of 5 ECTS credits, which correspond to a ten-week internship, can be credited. A faculty member must approve of the internship prior to its completion.

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http://www.geo.uzh.ch/de/studium/downloads
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An internship report of approximately 5-10 pages is handed in to this faculty member. In addition, a short form of the report is intended to show other students different options for gaining work experience and to help them organise their own internship. For this purpose, the internship is briefly described on approximately one A4 page whereby the important key points are mentioned.



The report is to be submitted as a Word document in English or German and should contain the points listed on the second page of the template.

Links leading to relevant websites can be included in the text and must be listed additionally at the end of the report. One or two images are requested for illustration purposes and have to be handed in separately. They need a minimum resolution of 920x556 pixels in landscape format.

https://www.geo.uzh.ch/en/studying/internship-reports.html

By submitting their report, students agree to its upload to the GIUZ's online internship catalogue and thereby its public accessibility.

Internship positions have to be organised independently. Open positions are published on our website.

www.geo.uzh.ch/en/services/open-positions/ UZH Career Services - Home www.iaeste.ch

## 7 Geography as a minor

Geography can be taken as minor with 30 or 60 ECTS credits. Both programs are regulated within the guidelines for the Bachelor's programme (Bachelorwegleitung) and on the website.

https://www.geo.uzh.ch/de/studium/geographie\_minor.html



## 8 Teaching Diploma/Lehrdiplom für Maturitätsschulen in Geographie

As the Teaching Diploma for Upper Secondary Education can only be completed in German, the following information is provided in German only.

Um Geographie an einer Mittelschule unterrichten zu können, wird das Lehrdiplom für Maturitätsschulen im Fach Geographie verlangt. Geographie kann als 1. oder 2. Unterrichtsfach gewählt werden. Es kann bereits während des Masterstudiums mit der didaktischen Ausbildung begonnen werden, ein abgeschlossenes Geographie- oder Erdsystemwissenschaftsstudium ist jedoch Voraus-setzung für den Erwerb des Lehrdiploms für Maturitätsschulen. Die didaktische Ausbildung wird vom Institut für Erziehungswissenschaften (IfE) angeboten. Dafür ist eine Doppelimmatrikulation nötig.

http://www.geo.uzh.ch/de/studium/lehrdiplom.html http://www.ife.uzh.ch/de/llbm/lehrdiplomfuermaturitaetsschulen.html

Bewerbungsfristen Doppelimmatrikulation

- Beginn im Herbstsemester: 30. April
- Beginn im Frühjahrssemester: 30. November

#### Kontakte

Institut für Erziehungswissenschaften (IfE) UZH Abteilung Lehrerinnen und Lehrerbildung Maturitätsschulen (LLBM) Kantonsschulstrasse 3, 8001 Zürich Tel. 044/634 66 55 \* sekretariat.llbm@ife.uzh.ch

Dr. Itta Bauer Geography Teacher Training Y25 L 08 Winterthurerstr. 190, Universität Irchel, Zürich Tel. 044/635 51 47 \* itta.bauer@geo.uzh.ch

## 8.1 Geographie als 1. Unterrichtsfach

Als Basis für das Lehrdiplom für Maturitätsschulen mit Geographie als Monofach (es wird später ausschliesslich Geographie unterrichtet) oder 1. Unterrichtsfach (es wird neben Geographie ein zweites Fach unterrichtet) dient der Bachelor- und Masterabschluss in Geographie (Bsc in Geographie, resp. MSc in Geography).

Das Lehrdiplom für Maturitätsschulen kann – muss aber nicht – neben dem Fach Geographie auch in einem 2. Unterrichtsfach (z.B. Geschichte, Biologie, Chemie, Physik, Mathematik) erworben werden. Das 2. Unterrichtsfach kann ein Fach aus der Mathematisch-naturwissenschaftlichen oder der Philosophischen Fakultät sein, **nicht** aber eines aus der wirtschaftswissenschaftlichen Fakultät oder der ETH (insbesondere Sport). Informationen über die Anforderungen können beim Institut für Erziehungswissenschaften bezogen werden. Studierende, welche das Lehrdiplom für Maturitätsschulen in einem 2. Unterrichtsfach erwerben möchten, sollten bereits während dem Bachelorstudium Module im entsprechenden Fach belegen. Weiter muss die Fachdidaktik für das entsprechende 2. Unterrichtsfach besucht werden.



## 8.2 Geographie als 2. Unterrichtsfach

Studierende mit Minor Geographie können Geographie als 2. Unterrichtsfach auswählen, sofern sie auch in ihrem Major das Lehrdiplom für Maturitätsschulen erwerben. Diese Möglichkeit richtet sich ausschliesslich an Studierende mit einem Major, welches an Kantonsschulen unterrichtet wird (z.B. Geschichte, Biologie, Physik).

Die fachwissenschaftlichen Voraussetzungen für das 2. Unterrichtsfach Geographie umfassen 90 ECTS Credits. Da die Module vorgegeben sind, empfiehlt sich eine frühe Planung des Minor-Studienaufbaus. Die Liste der fachwissenschaftlichen Voraussetzungen ist auf der Website des GIUZ publiziert.

http://www.geo.uzh.ch/de/studium/lehrdiplom.html

## 9 Varia

## 9.1 Student Society Geography (Fachverein)

The Student Society Geography's primary aim is the protection of the interests of geography stu-dents towards the department. It is close to the University of Zurich Student Association (VSUZH). The Student Society offers the possibility to establish contacts between the students, but it also aims to cooperate with the lecturers as well as with other student societies.

The Geoteam regularly organises events such as the very popular "DoBar" ("Do" for Thursday in German) at the Irchelbar and the "Geofest". For the continued existence and representation of stu-dents' interests, students are always needed and welcome to join!

www.geoteam.uzh.ch geoteam@geo.uzh.ch

## 9.2 Geographie Alumni UZH

The "Geographie Alumni UZH", offers different field trips and lectures on geographical issues. As they are mainly held in German, this section is written in German.

Die Geographie Alumni UZH, sieht sich als Bindeglied zwischen Hochschule und Öffentlichkeit. Ihr Hauptanliegen ist es, durch Fachvorträge zu verschiedenen aktuellen Leitthemen und durch Exkursionen im In- und Ausland, wissenschaftliche Forschungsergebnisse in verständlicher Form zugänglich zu machen. Die Geographie Alumni UZH umfasst junge Geographiestudierende sowie aktive und ehemalige Geographie-Lehrpersonen, Hochschul-Absolventeninnen und -Absolventen und Dozierende verschiedener Fachrichtungen.

Die Geographie Alumni UZH pflegt und ermöglicht ein dichtes fachliches und persönliches Netz-werk. Sie ist als Regionalgesellschaft Mitglied der ASG (Association Suisse de Géographie, Ver-band Geographie Schweiz). Mit der ASG zusammen bildet die Geographie Alumni UZH die Trägerschaft der "Geographica Helvetica" (Schweizerische Zeitschrift für Geographie). Diese Zeit-schrift ist open access zugänglich und wird durch ein Herausgeberteam mit Schriftleitung an der Universität Zü-rich geleitet.

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https://www.geographie-alumni.uzh.ch/de.html
www.geographica-helvetica.net
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#### Mitgliedschaft

Der Mitgliederbeitrag beträgt für Studierende 20 Fr. pro Jahr, für alle anderen Mitglieder 60 Fr.

Die Vorträge finden während dem Herbstsemester alle zwei Wochen jeweils am Mittwochabend um 18.15 Uhr im Auditorium D1.2 des Hauptgebäudes der ETHZ statt.



## 9.3 Libraries

A number of different libraries are available to students, including:

Main Library of the University of Zurich, Winterthurerstrasse 190

www.hbz.uzh.ch

The Library of the Department of Geography is integrated into the Main Library of the University of Zurich.

https://www.geo.uzh.ch/de/hauptbibliothek-uzh.html Zentralbibliothek Zürich, Predigerplatz

www.zb.uzh.ch ETH-Library, ETH-City Campus

www.library.ethz.ch Schweizerisches Sozialarchiv, Stadelhoferstrasse 12 www.sozialarchiv.ch

## 9.4 Important University Information Offices

Student Administration Office (Kanzlei) University Main Building, Rämistrasse 71, 8006 Zürich, room E 8 Tel. 044/634 22 17, Mail: kanzlei@uzh.ch Opening hours: Monday - Friday: 9.30-12.30 o'clock https://www.uzh.ch/cmsssl/en/studies/dates/adresses.html

Student Affairs Office, Faculty of Science (MNF) University Irchel, room 10-G-23 Tel. 044/635 40 07, Mail: bama@mnf.uzh.ch Opening hours: Tue / Thu: 10.00-12.30 / 13.45-16.15, Wed: 10.00-12.30 (mornings only during non-lecture period) www.mnf.uzh.ch

Psychological Counselling Service

Plattenstrasse 28, 8032 Zürich

Tel. 044/634 22 80, Mail: pbs@ad.uzh.ch

Consultations (appointments by arrangement) are free of charge and strictly confidential. http://www.pbs.uzh.ch/en.html

Advisory Centre for Grants and Loans University Main Building, Rämistrasse 71, 8006 Zürich, room KOL Ea 4c Tel. 044/634 22 04, Mail: studienfinanzierung@ad.uzh.ch Opening hours: Tue - Fr: 10.00-12.30. Appointments by arrangement. http://www.studienfinanzierung.uzh.ch/en.html



Global Student Experience (Exchange Programs) University Main Building, Rämistr. 71, 8006 Zürich, room KOL E 17 Tel. 044/634 41 57, Mail: outgoing@int.uzh.ch Opening hours: Mo - Fr: 9.30 - 12.30 or by arrangement https://www.int.uzh.ch/de/out/program.html

Academic Sports Association Zurich (ASVZ)

Secretary and information desk: Polyterrasse ETH,

Tel. 044/632 42 10, Mail: info@asvz.ethz.ch

September-Mai: Monday - Friday 10.00 - 16.00 / Thursday 10.00 - 19.00

June-August: Monday - Friday 10.00 - 14.00 o'clock

#### www.asvz.ch/en/634-welcome-asvz

Accommodation Agency

Accommodation (rooms and flats) service for students, lecturers and employees of the UZH and ETHZ

Sonneggstrasse 27, 8006 Zürich

Tel. 044/632 20 37, Mail: zimmervermittlung@ethz.ch

Opening hours: Monday, Wednesday - Fr 11.00 - 13.00 o'clock

www.wohnen.ethz.ch/en

Studentische Wohngenossenschaft (Woko)

Sonneggstrasse 63, 8006 Zürich

Tel. 044/632 42 90, Mail: woko@woko.ch

Opening hours: Monday - Thursday 11.00 - 15.00 o'clock

Phone hours: Monday - Thursday 9.00 - 13.00 o'clock

www.woko.ch

Further Offers www.students.ch/jobs **Marktplatz (uzhalumni.ch)** Career Services Hirschengraben 60, 8001 Zürich Tel. 044/634 21 54 or 62 www.careerservices.uzh.ch