

# Department of Geography

Study guide to the program of Geography

# **Master of Science**





# Imprint

Student Advisory Board Geography and Earth System Science
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www.geo.uzh.ch/en/studying

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# 1 Preface

In this **study guide** ("Wegleitung"), the Master's degree program in Geography is explained for students taking up their studies starting from fall semester 2020. For students who have started their studies before fall semester 2020, the study guide of the corresponding year (begin of studies) as well as the transitional regulations are relevant. The current and previous versions of the study guide as well as additional information are published on the website of the Department of Geography (GIUZ).

#### → www.geo.uzh.ch/en/studying

The program regulations ("Studienordnung") contain detailed content-related requirements and module and exam procedures of major and minor subjects at the Faculty of Science (MNF). The framework ordinance ("Rahmenordnung") governs the general conditions for Bachelor's and Master's degree programs at the MNF. The mentioned regulations as well as further study guidelines are available on the website of the MNF.

#### → www.mnf.uzh.ch/en/studying

In case of remaining questions, the student advisory board of the Department of Geography (GIUZ) is the first contact point:

Office Y25 K10, Winterthurstr. 190, Universität Irchel, Zürich

Phone 044/635 51 18

Opening hours Two afternoons per week from 13.00 to 16.30 o'clock

(please consider 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 program 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 ETH
  - → www.vvz.ethz.ch

In order to allow students to efficiently plan their studies, an information event concerning the Master's program 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 board.

Student advisory board of the Department of Geography, Etienne Grüebler & Laura Wysling

# 2 Geography at the University of Zurich

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

Based on the motto "One Earth – Many worlds", existentially important questions about the present as well as the future of the living environment on our planet are examined at the Department of Geography. How do humans and environment interact? What kind of relations develop between human and space? Global change, neoliberalisation, virtual worlds, environmental changes and urbanisation are some of the core challenges Geography touches upon.

The study program in Geography offers a unique combination of research perspectives and unites approaches of natural, social and computational sciences. The Master's study program in Geography allows specialisation in individual research fields of Geography. Profound knowledge of current research projects is imparted and the critical discussion of socially relevant topics is encouraged. In doing so, the students' intellectual and communicational skills are promoted.

# Aims of the study program

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

#### 2.1 Focus of Education

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

### Physical Geography

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

# Human Geography

- *Political Geography (PGG):* Geographies of violence and power, geographies of moral, political ecology, development studies
- *Economic Geography (WGG):* Geographies of global commodity chains and transnational markets; work, gender and space; urban and regional development
- Space, Nature and Society (SNS): Social and spatial aspects of nature, its perception, meaning, value, appreciation, appropriation, and development
- Social and Cultural Geography (SOKU): Transformation of cities and urban societies, urban marginalization, global socio-spatial inequalities and possibilities for urban change

### Remote Sensing and Geographic Information Systems

- 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 satellite and plane data
- Remote Sensing of Water Systems (RSWS): Developing and applying novel approaches building upon coupled models and observations to advance water systems research
- 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 protection areas, spatial modelling in the environmental area
- *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 geosemantical information out of unstructured geographical sources
- *Earth System Sciences (ESS):* Co-evolution of social-ecological systems, biosphere- and hydrosphere- human interactions

# 3 Geographical World of Work

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

#### 3.1 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, geotechnology, ecosystem research, ecological management, environmental economy, soil protection, soil science, climatic research, hydrology, soil protection specialist unit, development cooperation, international organisations, insurances, meteorology

**Information and communication:** Press and public relations, media, publishing sector, statistics, market research, information services, remote sensing, (computer) cartography, geoinformatics (GIS), banks, museums, libraries

**Schools:** Teaching at secondary, diploma, vocational and other schools

# 3.2 Employment Situation

Thanks to the social importance of topics like environmental protection, city and spatial planning or natural hazards, the majority of graduated geographers will find an interesting and challenging position. Also, the importance of electronic data processing will increase and hence, provide jobs in this field.

Examples of job outlines can be found here:

→ https://www.geo.uzh.ch/de/studium/nach\_dem\_studium

# 4 General information about studying at MNF

The degree courses at the MNF are structured into Bachelor's and Master's degrees. The Master's degree is based on previous knowledge acquired during the Bachelor's degree. In the Bachelor's program, fundamental knowledge as well as the capability for methodical-scientific thinking are imparted. Further information about the Bachelor's degree is given in the Bachelor's degree study guide.

A subsequent Master's program conveys advanced scientific knowledge and enables students to carry out independent scientific work. The structure of the Master's program at GIUZ is described in chapter 5.2.

In a third step after obtaining a Master's degree in Geography, a PhD can be achieved. This either requires being accepted in a promotion program and/or an advisor is found willing to lead a dissertation project.

A Master's degree also forms the fundamental requirement for acquiring the teaching diploma for high schools. The didactical education is held at the Institute of Education (IfE) of the University of Zurich (see chapter 7).

Within the study program Master of Science in Geography, an emphasis in one specific field in Geography is possible, but not mandatory. It hence allows a specialisation of the knowledge gained during the Bachelor's program. For a successfully completed Master's degree in Geography, the diploma "Master of Science in Geography" (MSc UZH in Geography) is awarded.

#### 4.1 Matriculation

In order to follow a study program at University of Zurich, matriculation is necessary. All students have to be matriculated as long as they require services of the University. These services include the visit of courses, the claim for counselling and support, the utilisation of libraries and the computer centre, taking exams, as well as the validation of the diploma. 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 is done, even if no other modules are taken that semester.

### Registration

The first matriculation needs a registration at the Student Administration Office of the University. This is also the case after an interruption of matriculation through deregistration.

→ www.uzh.ch/studies/application\_en.html

# Application period:

Fall semester: 30th of April

• Spring semester: 30th of November

#### Semester enrolment

The matriculation is renewed every semester through the online semester enrolment.

→ www.students.uzh.ch/registration\_en.html

#### 4.2 Structure

Every degree program at the University of Zurich is built according to the principle of the ECTS credit point system (ECTS = European Credit Transfer System). A Master's degree in Geography contains 90 or 120 ECTS credits (with a minor). For all coursework, students get ECTS credits based on an official assessment. The following principles apply:

- No ECTS credits are awarded without an official assessment.
- One ECTS credit corresponds to a workload of around 25-30 hours. In this time, lectures and time for individual work (self-study, solving exercises, preparation for exams, etc.) are included.
- In a full-time study program, around 30 ECTS credits are gained per semester.
- Only integer ECTS credits can be obtained.

The courses of the Master study program are structured into compulsory modules, core elective modules and elective modules. Generally, students decide themselves which and how many modules they would like to book and complete each semester. It is important to keep in mind that most modules are offered either in the fall or the spring semester, and the maximum period of study should not be exceeded. Some modules span over two semesters. In addition, some modules may depend on prerequisites. This and further information on individual modules is provided in the online course catalogue.

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

# 4.3 Structure of major and minor

The Bachelor (180 ECTS credits) and Master study programs (90 or 120 ECTS credits) at the Faculty of Science (MNF) are divided into major and minor subjects. Within the Master's program (90 ECTS credits) in Geography, no minor is included. Nevertheless, an additional minor (30 ECTS) can be completed if the study program is extended to 120 ECTS credits. In addition to the minors offered at the University of Zurich, there is the special opportunity for students in Geography to complete a minor at ETH Zurich.

→https://www.geo.uzh.ch/de/studium/nebenfaecher\_fuer\_geographiestudierende.html At the Faculty of Science (MNF) and the ETH Zurich, a new minor can be started at Master's level. At other faculties, a minor on Master's level may require a minor at Bachelor's level. A list of all major and minor subjects of the University of Zurich can be found on the following website.

→ www.degrees.uzh.ch

# 4.4 Begin of studies

Generally, the begin of the Master's study is in the fall semester. As – besides the Master's thesis – there is only one compulsory module in the Geography Master's program, there is no big difference in starting in the fall or the spring semester. If students begin their Master's study program in the spring semester they might need to consider certain prerequisites for modules (e.g. module B is only bookable after completion of module A).

# 4.5 Standard study period

The standard period of study of the Master's program is three semesters for a Master's without minor (90 ECTS credits), and four semesters for a Master's with a minor (120 ECTS credits). The maximum period of study is twice as long as the standard period of study, thus six – or eight – semesters. If the maximum period of study is exceeded, no degree can be achieved at the Faculty of Science (MNF) anymore. The Faculty might permit exceptions upon handing in a justified request.

# 4.6 Compulsory, core elective and elective modules

The study program 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 types of modules:

- Compulsory modules are compulsory for all students of a certain study program. If the assessment of a compulsory module is failed, the assessment can be repeated once. If the repetition is also insufficient, the student is excluded from all study programs which contain this module as a compulsory module.
- Core elective modules are modules, which can be chosen from a
  given list. The assessment of a core elective module can be repeated
  once. If the repetition is also insufficient, the module can be replaced
  once by another core elective module.
- Elective modules are modules, which can be freely selected according to chapter 5.4.3. Elective modules can be substituted without restrictions.

# 4.7 Booking modules

After having paid the semester fees it is possible to book modules online. The deadlines of the particular faculty have to be considered. It is recommended to book modules at your earliest convenience. For the MNF, the online booking tool opens around six weeks before the lecture period. Booking modules is usually possible until the third week after the start of lectures, but there are modules which need to be booked earlier. A deregistration of modules at the MNF is usually possible until around the middle of the semester.

#### → www.students.uzh.ch/booking/fristen\_en.html

If the assessment of a module is failed, a notification and a registration form for the repeat examination will be sent to the student. Notifications will be sent out at the beginning of March for the module exams of the fall semester and in the second half of July for the module exams of the spring semester. The registration for a repeat examination is binding and it is therefore not possible to de-register. Students can also choose to repeat the whole module.

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

 ${\color{blue} \rightarrow } https://ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html$ 

→ www.mystudies.ethz.ch

#### 4.8 Assessments

With the booking of a module at UZH, students are automatically registered for the assessment of the respective module. In most cases, it is possible to unsubscribe from the module, including the exam, without specifying any reason until around the middle of the semester. 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 attach a medical certificate. Applications are made through the online Student Portal. Afterwards, missed exams (noshow) will be graded as failed. In the final diploma, only passed assessments will be shown.

→ https://www.mnf.uzh.ch/en/studium/wie-studieren/pruefungen.html

For modules at the ETH Zurich 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. The Student Affairs Office of the Faculty needs to be informed about any discrepancies within four weeks after the module ended.

→ http://www.students.uzh.ch/record\_en.html

# 4.9 Mobility

An exchange of one or two semesters is recommended at the beginning of the Master studies, if desired. 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 the GIUZ. The student advisory board supports students in planning mobility stays at other universities.

**Please note**: Applications have to be submitted up until 31th of January for the following academic year (autumn until 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 Final degree

The Master's degree doesn't 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 conditions are fulfilled, 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.

- → http://www.geo.uzh.ch/en/studium/consecutive\_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 ETH, as well as language courses of the Language Center of UZH and ETH Zurich. 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 toward Degree", but are not included in the calculation of the final average grade.

# 5 Master of Science in Geography (MSc)

#### 5.1 General information

For an admission without restrictions to the Master study program in Geography, a Bachelor's degree in Geography from the Faculty of Science of the University of Zurich – 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.

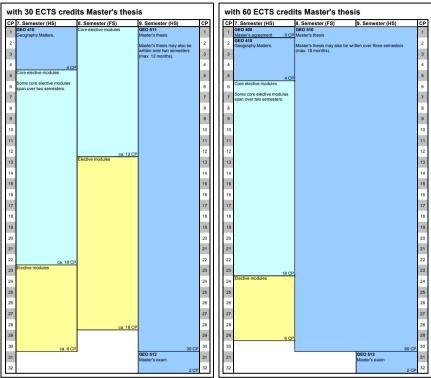
The Master's program enables a specialisation within the field of geography. The Master's degree qualifies for academic jobs, builds the professional scientific foundation for qualification as a secondary school teacher and is necessary for a PhD.

# 5.2 Structure of the study program in Geography

The figures on the next page show the general structure of the Geography Master's program. 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 program to 120 ECTS credits.

Students with an emphasis (see chapter 5.3) 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 program. 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.

# **Consecutive Master's degree in Geography**



Overview		
Compulsory modules	HS:	fall semester
Core elective modules	FS:	spring semester
Elective modules	CP:	ECTS credits

4/21/2020

# 5.3 Emphasis within the Master of Geography

An emphasis on one Thematic Subject Area (TSA) in Geography is possible within the Master studies. 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, 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 in core elective modules need to be completed out of 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
- Remote Sensing
- Geographic Information Science and Systems
- 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 each of the three thematic subject areas Physical Geography, Human Geography, as well as Remote Sensing and Geographic Information Science. The Master's thesis may be written in any of the three TSA. To obtain the degree in General Geography is only possible with a 30 ECTS credits Master's thesis.

#### 5.4 Module overview<sup>1</sup>

### Course type

#### **Assessments**

VL	Lecture	PP	Poster/presentation
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UE Practical course MP Exam SE Seminar SA Paper

E Field trip KW Calendar week

BL Block course
PR Practical training

VU Lecture with practical course

# 5.4.1 Compulsory Modules

ECTS	Module title	Туре	Time	Semester	Assessment
4	GEO 410 Geography. Matters.	VU	Mon 14-16	HS	SA, PP, MP
30	GEO 511 Master's Thesis	SA	-	HS/FS	SA
60	GEO 510 Master's Thesis <sup>2</sup>	SA	-	HS/FS	SA
2	GEO 512 Master's Exam	PP	-	HS/FS	PP

#### 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 his/her Master's thesis 100% for half a year or 50% for one year respectively. In order 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). The amount of work corresponds to a student working on his/her Master's thesis 100% for a year or part-time for one

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<sup>&</sup>lt;sup>1</sup> This is a provisional overview of modules. Please consult the online course catalogue for the most recent module information.

 $<sup>^2</sup>$  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 program. GEO 400 is an additional compulsory module that needs to be booked by the student.

and a half years respectively. In order 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.

In order 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 program. The conditions for a designated emphasis within the Master of Geography are defined in consultation with the supervisor and recorded on the Master's agreement. No unit is obliged to offer the 60 ECTS credits Master's thesis. Whether the 60 ECTS credits Master's thesis can be written, has to be agreed upon with the supervisor.

### Master's exam (GEO 512)

The Master's exam takes place shortly after submission of the Master's thesis. It consists of a colloquium presentation and a disputation. Hereby, the student not only proves to be well-versed in the matter of the Master's thesis, but is also able to integrate the thesis into the context of the 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.

→ http://www.geo.uzh.ch/en/studying/consecutive\_master/master\_thesis\_exam.html

#### **5.4.2 Core Elective Modules**

The choice of the core elective modules determines the emphasis within the Master's study program. For some of these modules it is required that certain prior modules are completed (e.g. certain core elective modules from the Bachelor's study program).

# **Emphasis on Physical Geography**

ECTS	Module title	Туре	Time	Semester	Assessment
6	GEO 411 Field studies on high mountain processes	SE PR, E	Thu 13-17 irregular	FS	SA
6	GEO 463 Soil Science I	VU	Thu 10-12	HS	SA
6	GEO 419 Soil Science II	VU VL	Fri 8-10 Fri 10-12	FS	SA, PP
6	GEO 412 Soil Science III	BL	two weeks in June	FS	PP, SA
6	GEO 417 Environmental archives and age determination	PR BL BL	Tue 16-18 1820.1.21 1 week in July	HS HS FS	SA
6	GEO 418 Atmosphere and Climate	VL	ETHZ	HS/FS	MP
6	GEO 471 Hydrological field measurements and calculations	VU	irregular	FS	PP, SA
6	GEO 475 Hydrological Modelling and Programming	VU	Mon 8-12	HS	MP, SA
3	GEO 815 Quantification and modelling of the Cryosphere	VU	Fri 8-10	HS	PP, SA
3	GEO 851 Glacier Mass Balance Measurements and Analysis	VU E	Thu 14-16 24.10.20	HS	SA
3	GEO 856 The high-mountain cry- osphere: processes and risks	VU	Tue 16-18	FS	MP
3	GEO 857 Snow and Avalanches: Processes and Risk Management	VU	Mon 15-17	FS	MP

# **Emphasis on Human Geography**

ECTS	Module title	Туре	Time	Semester	Assessment
6	GEO 421 Development studies	VL	Tue 14-16	HS	PP, SA
6	GEO 422 Qualitative Methodologies and Methods in Human Geography	VL	Mon 10-14	FS	SA
6	GEO 423 Political Geography	SE	Wed 9-12	HS	SA
6	GEO 424 Environment in History	SE	Wed 13-16	FS	SA
6	GEO 425 Political Ecology	SE	Wed 9-12	FS	SA
6	GEO 432 Gender, Work and Space	SE E	Di 10-12 tba	HS	SA
6	GEO 433 Global Economic Geographies of Agriculture and Food Systems	SE	Thu 10-13	FS	SA
3	GEO 722 Human Geography Field Course 1	SE E	irregular		PP
3	GEO 723 Human Geography Field Course 2	SE E	irregular		PP
3	GEO 724 Human Geography Field Course 3	SE E	irregular		PP
3	GEO 837 Regional Environmental Governance	SE	Fri 10-12	HS	PP, SA
3	GEO 838 Self-organised Seminar	SE	Tue 10-12	FS	

# **Emphasis on Remote Sensing**

ECTS	Module title	Туре	Time	Semester	Assessment
6	GEO 441 Remote Sensing A: Seminar	KO SE	Tue 15-17 Thu 14-16	FS	SA
6	GEO 442 Remote Sensing: Spectroscopy of the Earth System	VL UE	Wed 8-10 Wed 10-12	HS	MP
6	GEO 443 Remote Sensing: SAR and LIDAR	VL UE	Tue 8-10 Tue 10-12	HS	MP

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

ECTS	Module title	Туре	Time	Semester	Assessment
3	GEO 870 Spatial Statistics with applications in epidemiology and health geography	VU UE	Mon 9-11	HS	SA
3	GEO 871 Retrieving Geographic Information	VU	Wed 14-16	HS	SA
3	GEO 872 Adv. Spatial Analysis I	VU	Wed 10-12	HS	SA
3	GEO 873 Cognitive Issues in GIScience	VL UE	Tue 9-10 Tue 10-12	HS	SA
3	GEO 874 Introduction to Databases (until 30.10.20)	VL UE	Fri 8-10 Fri 10-12	HS	MP
3	GEO 875 Spatial Databases (from 6.11.20)	VL UE	Fri 8-10 Fri 10-12	HS	MP
3	GEO 876 Introduction to Programming for Spatial Problems	VU	irregular	FS	SA
3	GEO 878 Geovisualisation	VL UE	Wed 8-10 Wed 10-12	FS	PP, MP
3	GEO879 Societal Isssues in GIScience	VU	Wed 16-18	HS	PP, SA
3	GEO 880 Computational Movement Analysis	VU	tba	FS	SA
3	GEO 881 Adv. Spatial Analysis II	VL/UE	Thu 8-10	FS	SA

#### 5.4.3 Elective Modules

Besides compulsory and core elective modules, elective modules have to be completed. Basically, all modules of the course book of the University and the ETH Zurich are eligible:

**Geography:** Courses offered by the Department, particularly:

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

**Other subjects:** Whole offer of the University of Zurich and the

ETH Zurich primarily on Master level. Subject to certain restrictions by the responsible field or in-

structor.

Further modules: Other modules which are a reasonable addition

can be chosen, e.g. language and communication courses of the Language Centre of the University of Zurich and the ETH Zurich. A maximum of 4 ECTS credits for language courses can be cred-

ited (BSc and MSc together).

**Internship, tutorial:** See information in chapters 5.6 and 5.7

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

- Modules can have specific prerequisites that are defined in the 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 ETH have to be booked at the ETH via myStudies.

# The following elective modules are offered at the Department of Geography:

ECTS	Module title	Туре	Time	Semester	Assessment
6	GEO 401 Integratives Projekt	SE	irregularly	HS & FS	PP
1	GEO 717 Google Earth Engine	BL	6.4-9.4.21	FS	SA
1	GEO 802 Data Information Literacy	BL	8.9-9.9.20	HS	SA
2	GEO 803 Solving Geospatial Problems using Matlab	BL	31.8-3.9.20	HS	PP
3	GEO 805 Natural hazard and risk assessment in high-mountain areas	BL	1.9-4.9.20	HS	PP
1	GEO 812 Getting started with R for spatial analysis	BL	8.9-10.9.20	HS	-
3	GEO 813 Surveying course for Geographers	BL	Easter break	FS	SA
6	GEO 818 Dendro-Ecology	VL BL	Wed 16-18 irregularly	HS FS	SA, PP SA
4	GEO 819 The biogeochemistry of plant- soil systems in a changing world	VU	Fri 8-10	FS	SA, PP
2	GEO 820 Stable isotopes in ecology and soil science	VL	Fri 10-12	FS	SA
3	GEO 886 Natural Resource Management of Mountain Areas	VL/UE E	Tue 14-19 tba	FS	
1-3	GEO 7xx Modules with integrated excursions	E	irregularly	HS FS	SA

# 5.5 Field trips (GEO 599)

Field trips, about which students will be informed by e-mail by the student advisory board 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 integer 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 program. These days do not include field trips, which are part of certain lectures or exercises.

The crediting of the ECTS credits obtained through field trips takes place once before completion of the Master's program 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 handed in into the mailbox at the student advisory board (Y25K10) by the end of the last semester of the Master's program.

#### → http://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 some specific large field trip (abroad) during the whole Bachelor's and Master's program (upon announcement).

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

#### 5.6 Tutorials

Students who work as tutors in a Geography module obtain 2 ECTS credits per module in the elective section. During the entire period of study (Bachelor and Master 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. The own knowledge is applied and passed on. Future teachers can collect first experiences in teaching. Furthermore, semester assistant positions are only given to students who have worked as tutors in the respective TSA. Apart from the 2 ECTS credits per tutorial, tutors receive a financial compensation.

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.

# 5.7 Internship

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.

#### → http://www.geo.uzh.ch/de/studium/downloads

An internship report of approximately 5-10 pages is handed in to the 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.

This 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
- → https://www.geo.uzh.ch/de/studium/praktikumsberichte.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/
- → www.careerservices.uzh.ch/static/jobs/index.php?lang=en
- → www.iaeste.ch

# 6 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 program (Bachelorwegleitung) and on the website.

→ http://www.geo.uzh.ch/de/studium/geographie nebenfach.html

# 7 Teaching Diploma

# Lehrdiplom für Maturitätsschulen<sup>1</sup>

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 Geographiestudium ist jedoch Voraussetzung 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

Institut für Erziehungswissenschaften (IfE) UZH Abteilung Lehrerinnen und Lehrerbildung Maturitätsschulen (LLBM) Kantonsschulstrasse 3, 8001 Zürich

Tel. 044/634 66 55

Dr. Itta Bauer Geography Teacher Training Y25 L08 Winterthurerstr. 190, Universität Irchel, Zürich Tel. 044/635 51 47

itta.bauer@geo.uzh.ch

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<sup>&</sup>lt;sup>1</sup> As the Teaching Diploma for Upper Secondary Education can only be completed in German, the following information is provided in German.

# 7.1 Geographie als 1. Unterrichtsfach

Als Basis für das Lehrdiplom für Maturitätsschulen mit Geographie als Monofach (sie unterrichten später ausschliesslich Geographie) oder 1. Unterrichtsfach (sie unterrichten daneben ein zweites Unterrichtsfach) 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.

# 7.2 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 klar vorgegeben sind, empfiehlt sich eine frühe Planung des Minors. Die Liste der fachwissenschaftlichen Voraussetzungen ist auf der Website des GIUZ publiziert.

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

# 8 Varia

# 8.1 Student Society Geography (Fachverein)

The primary aim of the Student Society Geography (Geoteam) is the protection of the interests of geography students 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 students' interests, motivated students are always welcome to join Geoteam!

→ www.geoteam.uzh.ch

⊠ geoteam@geo.uzh.ch

Geoscope – the magazine of the Student Society Geography – discusses current issues related to the Geography study program. The editors ensure that an issue is published twice a year.

→ www.geo.uzh.ch/microsite/geoscope

⊠ geoscope@geo.uzh.ch

# 8.2 Geographie Alumni UZH (former GEGZ)

This section is about the "Geographie Alumni UZH", former Geographical-Ethnological Society Zurich (GEGZ). They offer 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 Netzwerk. Sie ist als Regionalgesellschaft Mitglied der ASG (Association Suisse de Géographie, Verband Geographie Schweiz). Mit der ASG zusammen bildet die Geographie Alumni UZH die Trägerschaft der "Geographica Helvetica" (Schweizerische Zeitschrift für Geographie). Diese Zeitschrift ist *open access* erhältlich und wird durch ein Herausgeberteam mit Schriftleitung an der Universität Zürich geleitet.

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

# Mitgliedschaft

Der Mitgliederbeitrag beträgt für Studierende 20 Fr. pro Jahr, für alle anderen Mitglieder 60 Fr. Darin inbegriffen ist die Fachzeitschrift "Geographica Helvetica", welche vierteljährlich erscheint.

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

#### 8.3 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.librarv.ethz.ch
- Library of Earth Sciences, Sonneggstrasse 5
  - → www.library.ethz.ch/Bibliothek-Erdwissenschaften
- Schweizerisches Sozialarchiv, Stadelhoferstrasse 12
  - → www.sozialarchiv.ch

# 8.4 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

Appointments by arrangement, also during semester break. Consultations are free of charge and strictly confidential.

#### → www.pbs.uzh.ch

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.

#### → www.studienfinanzierung.uzh.ch/index.html

International Relations Office (Exchange Programs)

University Main Building, Rämistr. 71, 8006 Zürich, room KOL E 17

Tel. 044/634 41 57, Mail: international@int.uzh.ch

Opening hours: Mo - Fr: 9.30 - 12.30 or by arrangement

#### → www.int.uzh.ch/contact.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

# Accommodation Agency

Accommodation (rooms and flats) service for students, lecturers and employees of the University of Zurich and ETH Zurich

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

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

### **Employment Agency**

→ www.uzh.ch/cmsssl/en/studies/studentlife/vacancies.html

# Other useful links

- → www.students.ch/jobs
- → www.marktplatz.uzh.ch (also for rooms and flats)

Career Services

Hirschengraben 60, 8001 Zürich

Tel. 044/634 21 54 or 62

→ www.careerservices.uzh.ch

