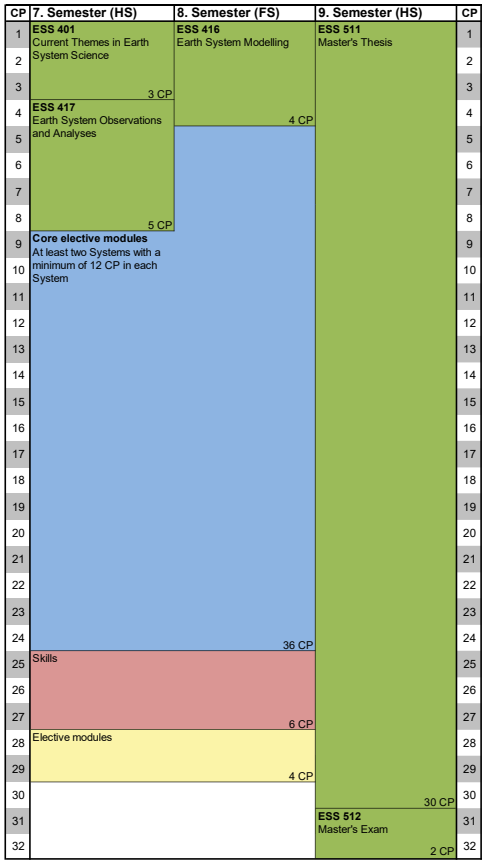
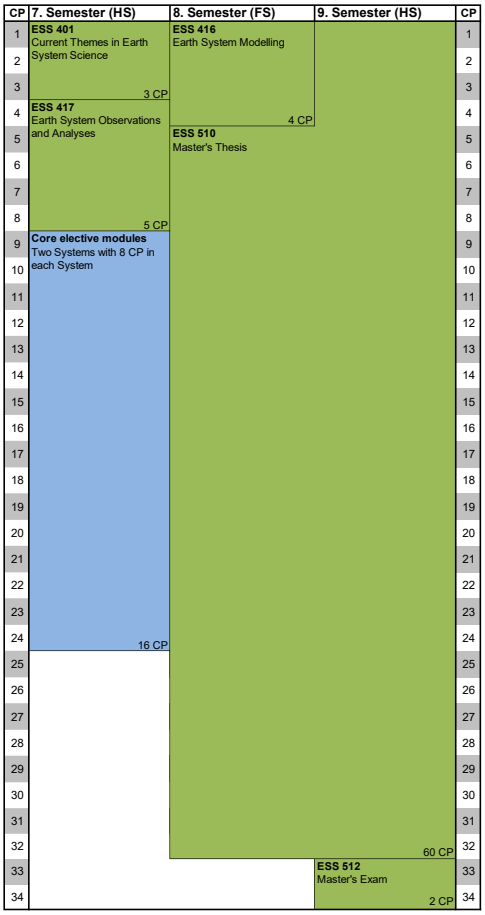
Master's degree in Earth System Science

with 30 ECTS credits Master's thesis



with 60 ECTS credits Master's thesis



Mandatory

- Earth System Science
- Core elective modules
- Skills

Elective section

Elective modules from UZH or ETH

CP	ECTS credits
HS	fall semester
FS	spring semester
ir	irregular course
b	block course
2	Course over two semesters
UZH	Lecture codes starting with: ESS, GEO, BIO, STA, UWW
ETH	Lecture codes starting with: 102, 651, 701, 751, 851

Contact:
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Core elective and Skills module list

Geo-Biosphere System (Core elective)

Code	CP	Sem.	Module title
ESS 841	3	HS	Analyzing the plant-soil system: Theory
ESS 842	6	FS,b	Analyzing the plant-soil system: Practice
GEO 417	6	HS,2	Environmental archives and age determination
GEO 463	6	HS	Soil science I: current challenges in plant-soil systems
GEO 818	6	HS,2	Dendro-Ecology
GEO 820	3	FS	Stable isotopes in ecology and soil science
BIO 148	3	FS	Introduction to Paleontology (if not available: BIO 274 (1CP) as alternative)
EEE 330	6	HS,b	Population Ecology
EEE 334	2	HS,b	Biodiversity from Species to Landscape Scale (Remote Sensing)
651-4004	3	FS	The global carbon cycle - reduced
651-4041	3	HS	Sedimentology I: physical processes and sedimentary systems
651-4044	3	FS	Micropalaeontology and Molecular Palaeontology
651-4070	5	FS,ir	Landslide analysis
751-5118	2	FS	Global Change Biology

Hydro-Atmosphere System (Core elective)

Code	CP	Sem.	Module title
GEO 411	6	FS,ir	Field studies on high mountain processes
GEO 471	6	FS	Hydrological field measurements and calculations
GEO 475	6	HS	Hydrological Modeling and Programming
GEO 815	3	HS	Quantification and modelling of the cryosphere
GEO 851	3	HS	Glacier Mass Balance Measurements and Analysis
GEO 856	3	FS	The high-mountain cryosphere: processes and risks
102-0468	3	HS	Watershed Modelling
651-4023	4	HS	Groundwater
651-4057	3	HS	Climate history and paleoclimatology
701-0412	3	FS	Klimasysteme (German)
701-1228	4	FS	Cloud Dynamics
701-1232	3	FS	Radiation and climate change
701-1251	3	HS	Land-Climate Dynamics
701-1252	3	FS	Climate Change Uncertainty and Risk

Human-Environment System (Core elective)

Code	CP	Sem.	Module title
GEO 423	6	HS	Political Geography
GEO 424	6	FS	Environment in History
GEO 433	6	FS	Global Economic Geographies of Agriculture and Food System
GEO 805	3	HS,b	Natural hazards and risk assessment in mountain regions
GEO 835	3	FS	Geography of Sustainability Transitions
GEO 837	3	HS	Regional Environmental Governance
GEO 856	3	FS	The high-mountain cryosphere: processes and risks
GEO 425	6	FS	Political Ecology: from critique to transformation
GEO 857	3	FS	Snow and avalanches: processes and risk management
EEE 330	6	HS,b	Population Ecology
EEE 204	2	FS	Biodiversity and Society
701-1317	3	FS	Global Biogeochemical Cycles and Climate
701-1651	3	HS	Environmental Governance
860-0023	3	HS	International environmental politics

Skills

Code	CP	Sem.	Module title
GEO 803	2	HS,b	Solving Geospatial Problems using Matlab
GEO 812	1	HS,b	Getting started with R for spatial analysis
GEO 877	3	FS	Spatial algorithms
STA 120	5	FS	Introduction to Statistics
STA 433	2	FS	R programming (if not available: BIO 369 (3CP) as alternative)
EEE 352	4	HS	Contemporary analysis for ecology (R)

Explanation

30 ECTS credits Master's thesis: 36 ECTS credits for Core elective modules (at least two systems with a minimum of 12 ECTS credits in each chosen system) and 6 ECTS credits for Skills

60 ECTS credits Master's thesis: 16 ECTS credits for Core elective modules (two systems with a minimum of 8 ECTS credits in each chosen system)