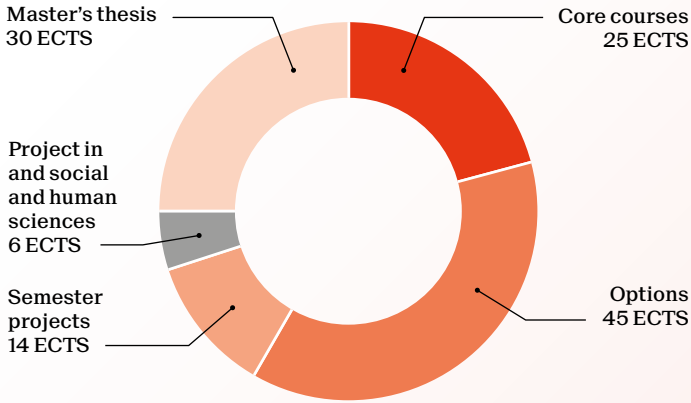


Master of Science in ENVIRONMENTAL SCIENCES AND ENGINEERING

2-year program - 120 ECTS



The program includes a compulsory 8-week internship which can be extended to 6 months and combined with the Master's thesis.

Students are requested to deepen their training either with a 30 ECTS specialization in:

- A Chemical and environmental bioprocesses
- B Water, soil and ecosystems engineering
- C Monitoring and modeling of the environment

Or with a 30 ECTS minor included in the options.

Minors recommended with this Master:

- Energy
- Integrated design, architecture and sustainability (IDEAS)
- Science, technology and area studies - Russia
- Urban planning and territorial development (DTU)

Career Opportunities

Your expertise, your newly acquired scientific skills and versatility will allow you to access a wide variety of professional activities in the public or private sector, in industry or the service sector, in Switzerland or abroad. Your prospective employers are primarily design offices, engineering consultants or environmental engineering firms. You also have the opportunity to work in public administration (sanitation, energy, mobility, spatial planning, etc.), in small or large companies or in environmental protection institutions (technical cooperation...). Finally, you may also decide to satisfy your scientific curiosity by embarking on a doctoral thesis.

School of Architecture, Civil and Environmental Engineering
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	Specialization			Credits
	A	B	C	
Core courses				25
Air pollution and climate change	A			5
Environmental transport phenomena		B		5
Geomonitoring			C	5
Spatial statistics and analysis			C	5
Water and wastewater treatment	A			5
Water resources engineering		B		5

Options				45
Analyse et management des risques industriels	A			3
Applied wastewater engineering	A			3
Biomineralization: from nature to application	A			4
Development engineering	A	B		4
Energy conversion and renewable energy	A			3
Fate and behaviour of environmental contaminants	A			4
Groundwater and soil remediation	A			4
Material and energy flow analysis	A			4
Recycling of materials	A			2
Sanitary engineering in developing countries	A			2
Santé environnementale, santé au travail	A			3
Solid waste engineering	A			4
Systèmes de management environnementaux	A			2
Bio-ingénierie des cours d'eau et milieux naturels		B		2
Droit: contrats et responsabilité professionnelle	A	B	C	3
Éco-morphologie fluviale		B		3
Économie hydraulique		B		2
Études d'impact	A	B		3
Fluvial biogeosciences		B		4
Hydraulique fluviale et aménagement de cours d'eau		B		3
Hydrogeophysics		B		3
Hydrologie urbaine		B		4
Limnology		B		5
Physics and hydrology of snow		B		4
Risques hydrologiques et aménagements		B		3
Statistiques multivariées avec R		B	C	4
Water quality modeling	A	B		4
Advanced satellite positioning			C	4
Design de SIG et Web-SIG			C	4
Distributed information systems			C	4
Distributed intelligent systems			C	5
Exploratory data analysis in environmental health		B	C	4
Gestion foncière et droit foncier			C	3
Image processing I			C	3
Image processing for Earth observation			C	3
Introduction to database system			C	4
Sensor orientation			C	4
Spatial decision support systems			C	3
Sustainability assessment of urban systems			C	3

Semester projects				14
Design project				10
SIE/ENAC Project or Summer workshop				4