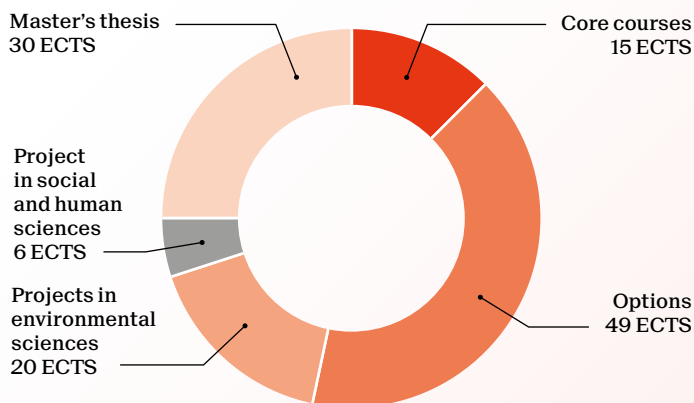


Master of Science in ENVIRONMENTAL SCIENCES AND ENGINEERING

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.

Several specializations available

D: Water resources and management (WRM)
E: Climate change anticipation and adaptation (CCAA)
F: Environmental sensing and computation (ESC)
G: Biological and chemical processes in environmental engineering (BCP)

Students may choose a minor (30 ECTS), e.g.:

- Data science
- Energy
- Engineering for sustainability
- Integrated design, architecture and sustainability
- Transforming territories under climate change

Career prospects

Graduates' expertise, scientific skills and versatility enables them to access a wide variety of activities in the industry, consultancy firms and environmental engineering companies. Their multidisciplinary approach allows them to successfully collaborate with civil engineers, urban planners, geologists and various experts involved in land, mobility and resource management. They therefore have the opportunity to work in public administrations (sanitation, energy, mobility, spatial planning) and in environmental organizations (scientific cooperation). In order to satisfy their scientific curiosity, they may also decide to embark on a doctoral thesis.

School of Architecture, Civil and Environmental Engineering
go.epfl.ch/master-environmental-sciences-engin
Contact: secretariat.ssie@epfl.ch
Tel. +41 21 693 80 71

	Specialization				Credits
	D	E	F	G	
Core courses					15
Atmospheric processes: from cloud to global scales		E			5
Sensing and spatial modeling for earth observation			F		5
Water and wastewater treatment				G	5
Water resources engineering	D				5

Options					49
Advanced satellite positioning			F		4
Air pollution		E	F		5
Applied data analysis			F		8
Applied ecology		E			4
Applied wastewater engineering	D			G	3
Bio-ingénierie des cours d'eau et milieux naturels	D				2
Climate and water sensitive urban design	D	E			4
Development engineering				G	4
Distributed information systems			F		6
Distributed intelligent systems			F		5
Éco-morphologie fluviale	D	E			3
Ecotoxicology				G	4
Energy conversion and renewable energy		E			4
Environmental transport phenomena			F		5
Etudes d'impact		E			3
Exploratory data analysis in environmental health		E	F		4
Fate and behaviour of environmental contaminants	D			G	4
Global change ecology and fluvial ecosystems	D			G	4
Groundwater and soil remediation	D			G	4
Hydraulique fluviale et aménagement de cours d'eau	D				3
Hydrogeophysics	D			G	3
Hydrologie urbaine	D	E		G	4
Image processing for earth observation	D	E	F		4
Image processing I			F		3
Image processing II			F		3
Indoor air quality and ventilation			F		4
Irrigation and drainage engineering	D				4
Limnology	D			G	5
Material and energy flow analysis				G	4
Multivariate statistics in R			F		4
Occupational and environmental health				G	3
Physics and hydrology of snow	D	E			4
Recycling of materials				G	2
Risques hydrologiques et aménagements	D	E			3
Sanitary engineering in developing countries	D			G	3
Science of climate change		E			4
Sensor orientation			F		4
Solid waste engineering				G	4
Sustainability assessment of urban systems		E			3
Systèmes de management environnementaux		E			2
Urban Green&Blue infrastructure and global warming		E			3
Water resources management	D				3
Biomining: from nature to application					4
Droit: contrats et responsabilité professionnelle					3
Environmental economics					4
Gestion foncière et droit foncier					3
Projet ENAC					4
Summer Workshop					4

Semester projects					20
Design project					10
SIE Project					10