What planning for our territories?

Master of Science (MSc) in geography

General Outline

Objectives
The programme offers:
• an interdisciplinary programme at the interface of Geosciences and Environmental Sciences;
• a general reflection on the organisation of territories, of technical networks and of spatial, natural and human systems on different spatial scales;
• a reflection on the transformations of urban spaces in a perspective of sustainable development: eco-urban planning, city policies, urban planning;
• a study of socioeconomic, cultural and environmental transitions in mountain regions;
• a critical analysis of the diversity and complexity of the socio-economic and environmental transformations of southern countries;
• an emphasis in teaching on the use of quantitative methods (Spatial Analysis, Geomatics, Geovisualisation).

Career prospects
University studies develop a great many transverse skills such as: oral and written communication, critical, analytical and summarising faculties, abilities in research, and so on. This panoply of skills, combined with specialist knowledge acquired in the course of studies, is excellent preparation for a wide range of employment opportunities, such as:
• Town Planning departments
• Development offices
• Coordination of regional development projects
• Sustainable urban development consultancy
• Practical work in relation to the mountain environment
• Practical work in relation to development in southern countries
• Teaching
• Research

Alumni move into a wide variety of roles, for example as a sustainable development officer or coordinator of the North Lausanne Development Plan.

Other examples and alumni testimonials: www.unil.ch/perspectives/geosciences

General Information

Organisers
Faculty of Geosciences and Environment
School of Geosciences and Environment
www.unil.ch/gse

Degree awarded
Master of Science (MSc) in Geography, orientation:
• Sustainable Urban and Spatial Planning
• Mountain Territories and Environments
• Development and Environment
• Spatial Analysis and Complex Systems

ECTS credits
120

Duration
4 semesters

Teaching language
French, some courses in English. Recommended level: C1.

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More information
www.unil.ch/mastergeographie

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Only the official texts should be considered binding.

www.unil.ch/masters
EDUCATIONAL CONTENT

Description
The first three semesters are dedicated to training and the start of research work. Courses that are common to all specialisations take mostly place during the 1st semester.

The orientation Urban Studies, Sustainable Urban Development and Territorial Development is based on a study of the environmental challenges of sustainable urban development and analysis of urban projects viewed from the perspective of ecological town planning.

The “Mountain Territories and Environments” orientation, with a strong grounding in Geomorphology and a focus on the study of environmental dynamics in high mountain regions, development problems in mountainous areas and nature conservation issues in the mountains.

The Development and Environment orientation is orientated towards the study of economic, social, political and ecological transformation in Southern countries—with a focus on regions in Africa, Asia, and Latin America—and in northern countries, particularly in Europe. Development is examined from both an urban and rural perspective. In addition to scientific analyses, the course familiarises students with the tools used in international cooperation and nature conservation.

The Spatial Analysis and Complex Systems orientation concentrates on the development for challenging public and private projects of studies and smart communicative displays based on spatial modelling, the study of networks and the organisation and processing of Big Data. A mastery of the relevant concepts and tools is coupled with strategies for the creation of focused and innovative approaches.

The fourth semester is devoted essentially to writing the dissertation in the subject of the chosen orientation. The last two semesters can lead to more specific training as part of a work placement or an international placement certificate (practical training).

SYLLABUS

A. Common module (15 ECTS credits)
- Basic Concepts in Geovisualisation
- Territorial Diagnosis and Prospects
- Risk and Territorial Policies

B.1. “Sustainable Urban and Spatial Planning” orientation module (65 ECTS credits)
“Sustainable Town Planning and Urban Projects” orientation
- Territories, Spatial Dynamics, Social Practices and Sustainability
- Governance: Institutional Framework, Stakeholders and Process
- Projects: Strategy, Design and Implementation
- Optional Courses and/or Internship

B.2. “Mountain Territories and Environments” orientation module (65 ECTS credits)
- Preparation to Research
- Sustainability of socio-environmental systems
- Interdisciplinarity: tools and methods
- Optional Courses and/or Internship

B.3. “Development and Environment” orientation module (65 ECTS credits)
- Basics of Development
- Problems in Rural Development
- Problems in Urban Development
- Methods and Tools
- Optional Courses and/or Internship

B.4. “Spatial Analysis and Complex Systems” orientation module (65 ECTS credits)
- Databases and Visualising Geographical Information
- Spatial Modelling, Networks and Complex Systems
- Optional Courses and/or Internship

C. Dissertation (40 ECTS credits)
Personal research work

PRACTICAL INFORMATION

Admission requirements
Candidates must be holders of a Bachelor of Science in Geosciences and Environment, subject area Geography or Environmental Sciences, awarded by the University of Lausanne, or of a Bachelor’s degree in Geography or Environmental Studies awarded by a Swiss university. Another degree or academic title may be judged equivalent and give access to the Master’s degree course, with or without further conditions.

Enrolment and final date
Applications to be submitted before 30 April to the Admissions Office: www.unil.ch/immat
Candidates needing a visa to study in Switzerland: 28 February.

Start of courses
Mid-September
Academic calendar: www.unil.ch/central/calendar

Part-time Master’s degree
Under certain conditions, a Master programme can be followed part-time. See: www.unil.ch/formations/master-temps-partiel.

General information on studies, guidance: www.unil.ch/soc

Career prospects
www.unil.ch/perspectives

Accommodation and financial assistance
www.unil.ch/sasme

International
www.unil.ch/international

Subject to ratification by the relevant authorities. Only the official texts should be considered binding.