



A PIONEERING INTERNATIONAL AND TRANSDISCIPLINARY PROGRAMME TO BUILD A SUSTAINABLE FUTURE

MASTER OF SCIENCE (MSc) IN TRANSDISCIPLINARY STUDIES OF CLIMATE, ENVIRONMENT AND ENERGY (TRACEE)

GENERAL OUTLINE

Objectives

Are you ready to lead the change against the world's most pressing challenges – climate change, energy transitions, and environmental crises? To build a sustainable future, we need innovative thinkers and skilled professionals who can break disciplinary boundaries and work together on transformative solutions.

The International Master's Programme in Transdisciplinary Studies of Climate, Environment, and Energy (TRACEE) offered by the CIVIS European University Alliance, empowers you to become a change-maker. It equips you with the knowledge to understand the complex problems of climate, energy, and environmental systems and provides you with the tools to create solutions from natural science, society and human perspectives, through a transdisciplinary approach.

This programme, co-taught by leading academics from the 11 CIVIS universities, builds on an innovative framework to:

- Integrate natural sciences, social sciences, humanities, and law to create holistic solutions.
- Study at different CIVIS universities, experiencing diverse academic cultures and building international networks.
- Equip you with the knowledge and skills to tackle complex global issues and drive real-world impact.

Career opportunities

Graduates of TRACEE will be experts in the green transition, agents of change prepared for impactful careers, including:

- Policy development in government agencies.
- Research and innovation in climate and energy sectors.
- Consultancy in environmental and sustainability organizations.
- Leadership roles in international NGOs or global businesses.
- This programme also provides an excellent foundation for doctoral studies in transdisciplinary research fields.

GENERAL INFORMATION

Organisers

Coordinated by Stockholm University for the CIVIS Alliance: <https://civis.eu/fr>
And
School of Geosciences and Environment for study track 7 of the master
www.unil.ch/gse

Degree awarded

International joint or multiple degree depending on the chosen study track.
For UNIL study track 7: Master of Science (MSc) in Environmental Science, which is part of a multiple degree with Stockholm University and La Sapienza University of Rome

ECTS credits

120

Duration

4 semesters

Teaching language

English. The recommended level of English is C1.

Contact

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EDUCATIONAL CONTENT

Description

The programme offers nine different study tracks (see image below) six of which are open to start in autumn 2025. You must select your preferred track at the time of application. During the first semester, all students attend a common curriculum at Stockholm University, before continuing with their respective study track, spreading in the 11 universities of the Alliance.

Study track 7 on Environmental Risks and Mitigation is co-led by UNIL, Stockholm University and Sapienza University of Rome.

The structure of the four semesters

Semester 1: Building the foundations (30 ECTS)

The first semester at Stockholm University, consists of five modules meant to develop foundational skills through Climate, Energy, and Environment, covering several topics: systems thinking, natural science, social science and humanities perspectives as well as transdisciplinary methods.

Semester 2-3: Your selected study track

Choose from the six open specialised tracks (30 ECTS / semester) offered across the 11 CIVIS member universities (see image below).

Semester 4: Master thesis – working on a real-world challenge

Complete your academic journey with a 30 ECTS thesis, at one of the CIVIS partner universities within your selected study track.

Continuous transdisciplinary stream

A transdisciplinary stream runs through the entire programme. On site during the first semester in Stockholm, and thereafter online. The purpose is to engage students in learning about transdisciplinarity and offer support for the development of independent projects. It also offers a meeting point for the whole student group throughout the programme.

STUDY TRACK 7

On Environmental Risks and Mitigation

Offered through a partnership among Stockholm University (SU) for semester one, UNIL and Sapienza University of Rome (SUR). Whether addressing natural disasters like earthquakes or human-induced risks such as industrial accidents, this study track provides tools for proactive and effective mitigation strategies. The programme equips students with:

- Comprehensive knowledge: Understanding geological, biological, and ecological risk factors.
- Analytical skills: Training in hazard modelling, monitoring, and data analysis.
- Practical applications: Developing risk mitigation strategies and working with stakeholders.

Core modules include Risk Assessment in Natural Hazards, Hazard Management Strategies, and Field-based Environmental Monitoring. This interdisciplinary approach prepares students to address environmental risks globally and sustainably.

Semester 2, University of Lausanne (UNIL)

Specialising in natural hazard management and risk mitigation, with a focus on Alpine conditions.

- Field and Laboratory Methods: The UNIL Campus as a Microcosm (5 ECTS)
- Erosion and slope movements (5 ECTS)
- Laboratory Methods: Experiments, Measurements and Uncertainties (5 ECTS)
- Sampling and Sensing Aquatic Ecosystems (4 ECTS)
- Integrated course Mountain Ecosystems (3 ECTS)
- Statistical Analyses in Environmental Sciences (3 ECTS)
- Conditionally Elective Courses (1 among the list below, 5 ECTS):
 - Aquatic Ecosystems: Glaciers Rivers and Lakes (5 ECTS)
 - Hazards and Risks of Slope Mass Movements (5 ECTS)

Semester 3: Sapienza University of Rome (SUR)

Focusing on Mediterranean environmental challenges and monitoring.

- Marine Geology (6 ECTS)
- Geospatial Technologies for Biodiversity Conservation (6 ECTS)
- Biogeography (6 ECTS)
- Geological Storage (6 ECTS)
- Volcanic Hazard (6 ECTS)

Semester 4: Master thesis at SU, UNIL or SUR (30 ECTS)

PRACTICAL INFORMATION

Admission requirements

Bachelor's degree and special qualifications in accordance with the chosen study track. Students with background in natural sciences, social sciences, law, or humanities may be eligible. The programme is in English.

For study track 7 going to UNIL: A Bachelor's degree within Natural Science or equivalent.

Application

Via Stockholm University application website from 17 February to 31 March 2025. <https://www.universityadmissions.se/intl/start>

Tuition fees

- EU/EES/CH students: €9000 for the full programme (€2250/semester)
- Non-EU/EES students: €18,000/year for the full programme (€4500/semester)

Start of courses

01/09/2025 in Stockholm. Successive semesters start depending on the location where they take place.

General information on studies, guidance

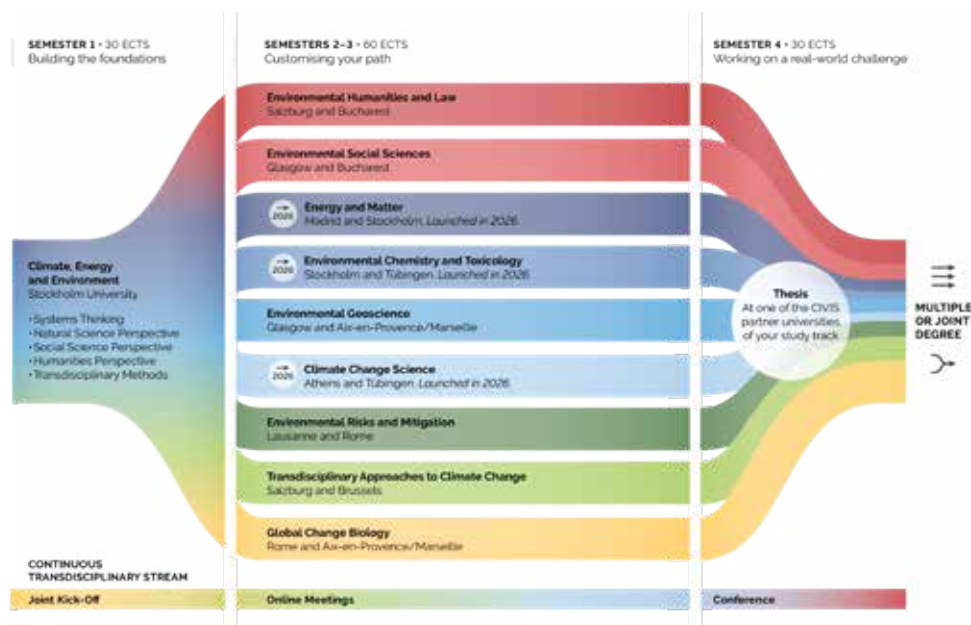
www.unil.ch/soc

Accommodation and financial assistance

www.unil.ch/sasme

International

www.unil.ch/international



SAPIENZA
UNIVERSITÀ DI ROMA



Stockholm
University

Unil

UNIL | Université de Lausanne

Faculté des géosciences
et de l'environnement