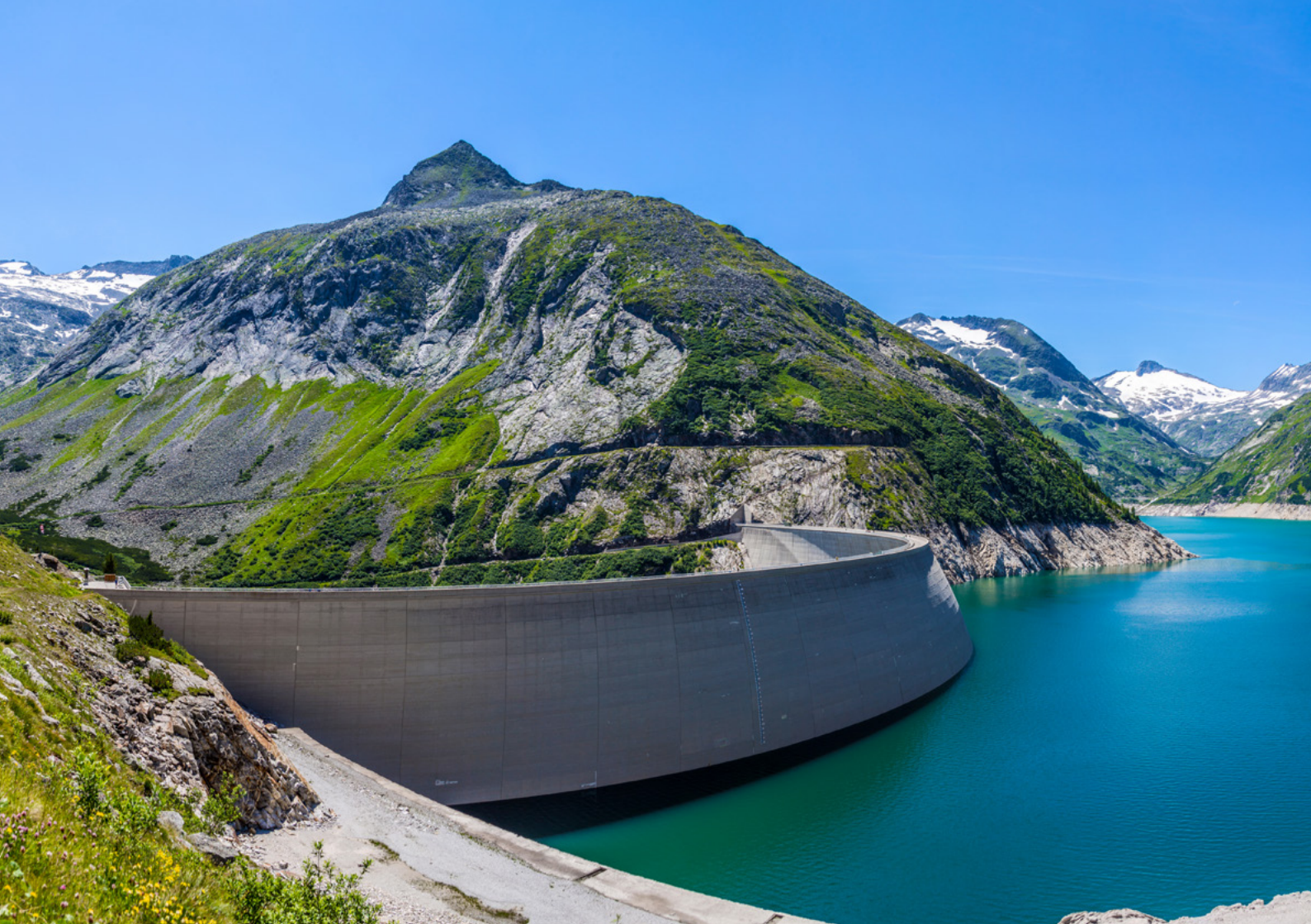
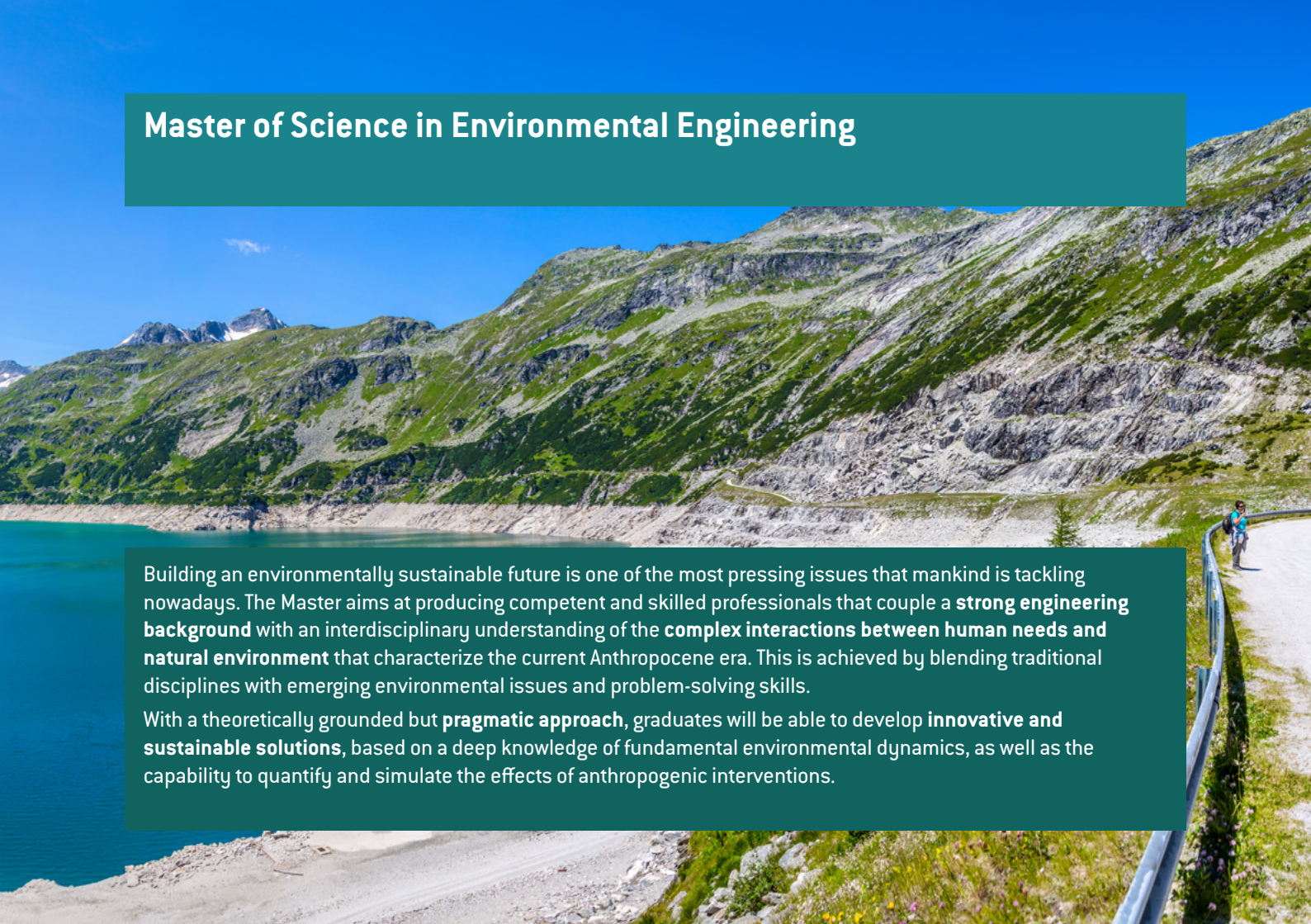
UNIVERSITÀ
DI TRENTO

MSc in
Environmental Engineering



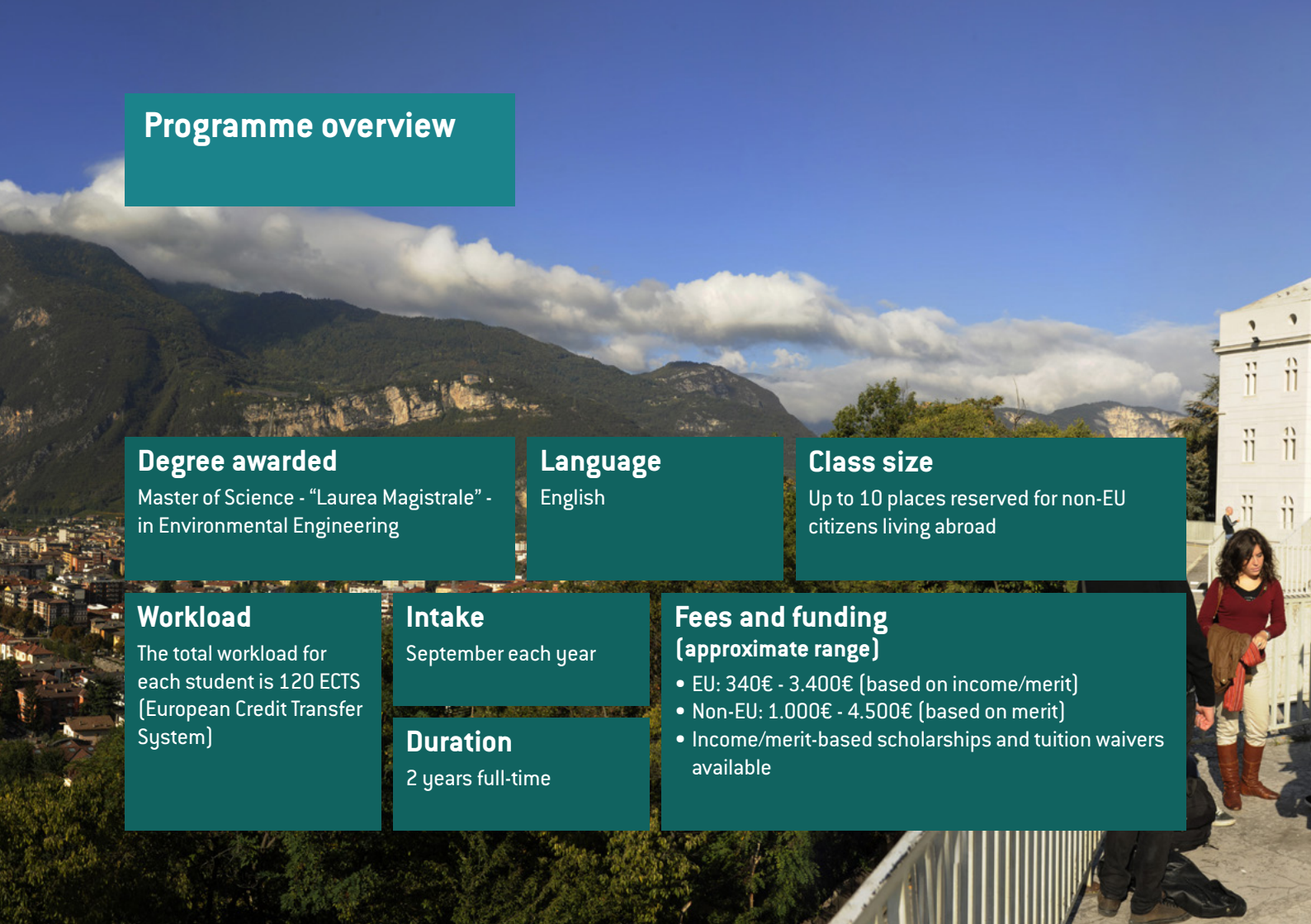
Master of Science in Environmental Engineering



Building an environmentally sustainable future is one of the most pressing issues that mankind is tackling nowadays. The Master aims at producing competent and skilled professionals that couple a **strong engineering background** with an interdisciplinary understanding of the **complex interactions between human needs and natural environment** that characterize the current Anthropocene era. This is achieved by blending traditional disciplines with emerging environmental issues and problem-solving skills.

With a theoretically grounded but **pragmatic approach**, graduates will be able to develop **innovative and sustainable solutions**, based on a deep knowledge of fundamental environmental dynamics, as well as the capability to quantify and simulate the effects of anthropogenic interventions.

Programme overview



Degree awarded

Master of Science - "Laurea Magistrale" - in Environmental Engineering

Language

English

Class size

Up to 10 places reserved for non-EU citizens living abroad

Workload

The total workload for each student is 120 ECTS (European Credit Transfer System)

Intake

September each year

Duration

2 years full-time

Fees and funding

(approximate range)

- EU: 340€ - 3.400€ (based on income/merit)
- Non-EU: 1.000€ - 4.500€ (based on merit)
- Income/merit-based scholarships and tuition waivers available

Admission

Application deadlines
(check on line for updates)

- February for non-EU citizens living outside Italy
- EU citizens and non-EU citizens living in Italy who intend to apply should check the Master web page

Requirements

- Bachelor's degree in Civil and/or Environmental Engineering, or closely related field, or the minimum number of ECTS credits in specific academic areas as stated in the call for admissions
- English at the B2 level according to the Common European Framework of Reference for Languages

Selection criteria

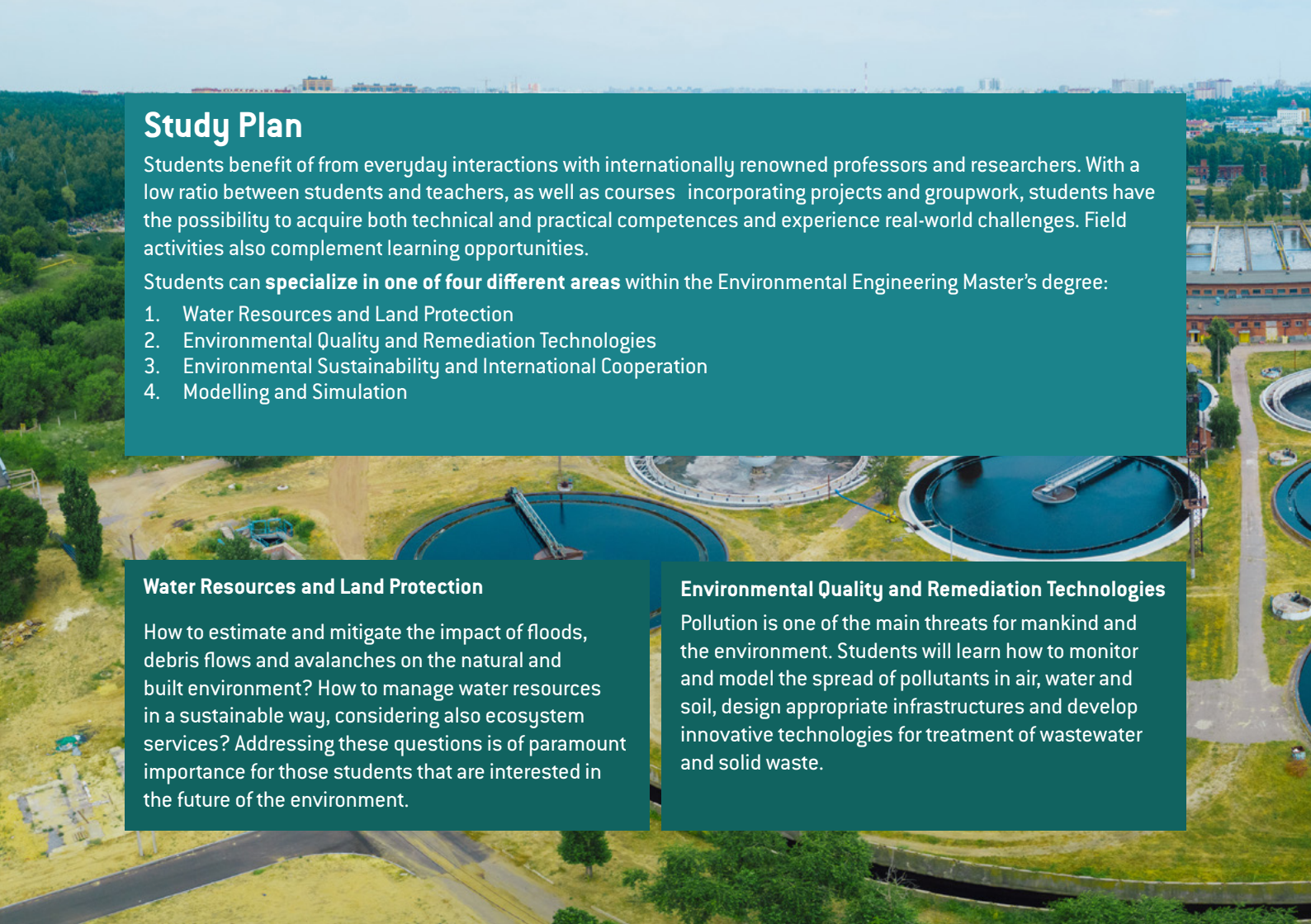
- Coherence between applicant's previous studies and the academic objectives of the Master's degree program
- Academic curriculum
- English language competence

How to apply

Non-EU citizens living abroad:

- Access the online application form
- Upload the required documents
- Submit your online application by the deadline
- Check online for more information and updates www.unitn.it/menve

EU citizens and non-EU citizens living in Italy should refer to the procedures stated on the Master web page



Study Plan

Students benefit of from everyday interactions with internationally renowned professors and researchers. With a low ratio between students and teachers, as well as courses incorporating projects and groupwork, students have the possibility to acquire both technical and practical competences and experience real-world challenges. Field activities also complement learning opportunities.

Students can **specialize in one of four different areas** within the Environmental Engineering Master's degree:

1. Water Resources and Land Protection
2. Environmental Quality and Remediation Technologies
3. Environmental Sustainability and International Cooperation
4. Modelling and Simulation

Water Resources and Land Protection

How to estimate and mitigate the impact of floods, debris flows and avalanches on the natural and built environment? How to manage water resources in a sustainable way, considering also ecosystem services? Addressing these questions is of paramount importance for those students that are interested in the future of the environment.

Environmental Quality and Remediation Technologies

Pollution is one of the main threats for mankind and the environment. Students will learn how to monitor and model the spread of pollutants in air, water and soil, design appropriate infrastructures and develop innovative technologies for treatment of wastewater and solid waste.

Environmental Sustainability and International Cooperation

Environmental engineering is not only a technical job. In this track students will learn how to tackle complex problems and look for the most appropriate solutions, which are not simply the best available technologies. Finding sustainable solutions is particularly crucial for international cooperation projects.

Modelling and Simulation

The new frontier of engineering is to model the relevant processes that need to be considered in a project. Advanced modelling skills will be a strength that future environmental engineering should possess. This track is geared towards students that want to be at the forefront of environmental applied research.

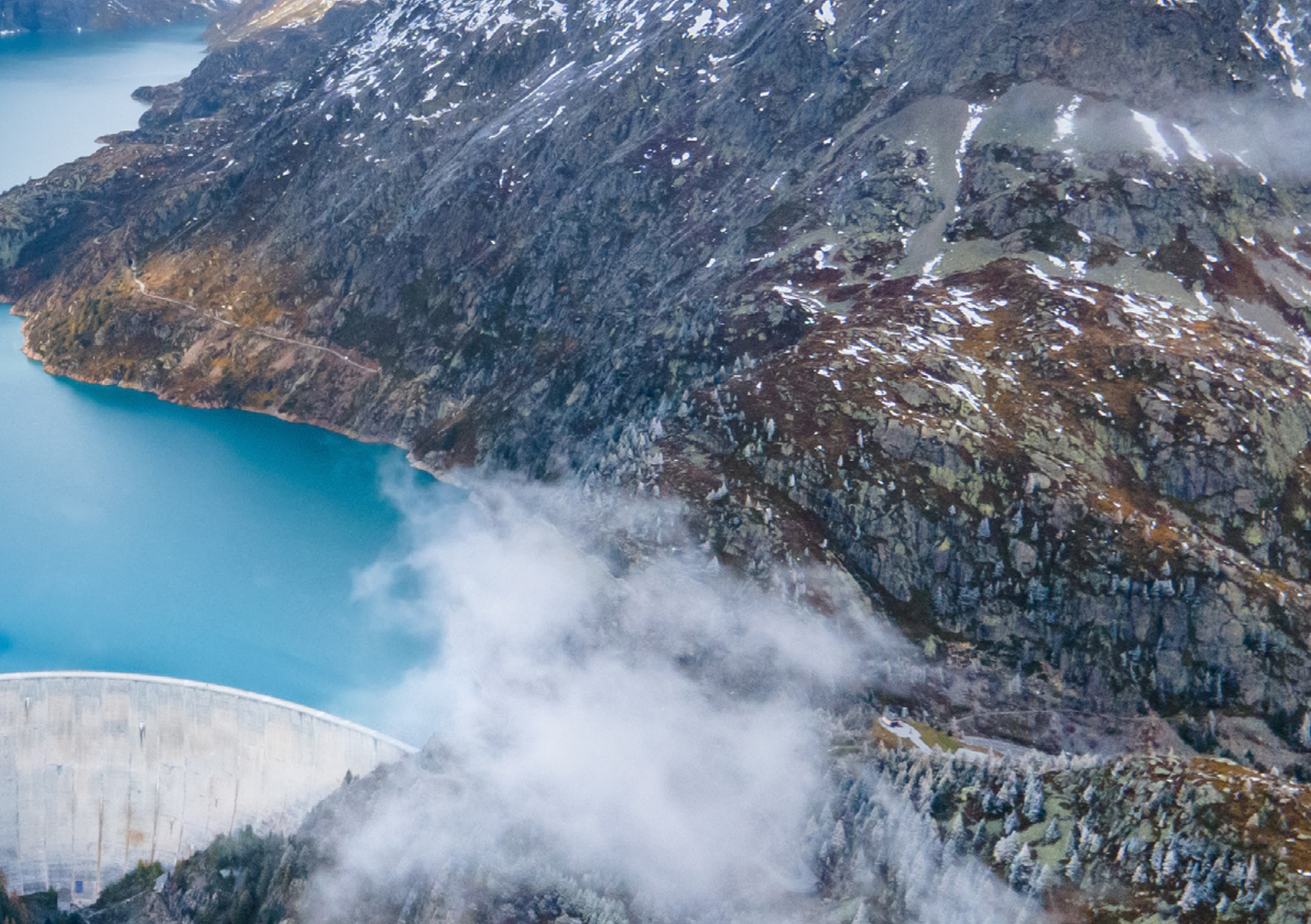
Career opportunities

Graduates are able to design and manage works and services in various areas of environmental engineering, such as:

- land protection from natural and anthropogenic hazards, analysis and mitigation of hydrogeological risk, protection and requalification of water bodies;
- urban infrastructures, hydraulic structures, civil works within an environmental context;
- sustainable management of environmental resources, treatment of emissions in solids, liquids and gases, quality monitoring, pollution prevention and remediation of environmental matrices (air, water, soil);
- management of the territory and the built environment, even in the presence of conflicting uses of resources, with a view to environmental sustainability and in specific socio-economic contexts.

As such, graduates may work as designers, managers and modelers in a wide range of areas connected with environmental issues, including within start-up companies.

Or with the Master's degree graduates can access Doctoral programs in Italy and abroad.



CONTACT DETAILS

International Mobility Office
Science and Technology Area
via Mesiano, 77 - 38123 Trento, Italy
tel. +39 0461 282587
master-st@unitn.it

www.unitn.it/menve

Graphic>UniTrento | IMG> Archivio UniTrento (A.Coser - fototonina.com) - stock.adobe.com | Printed in December 2022