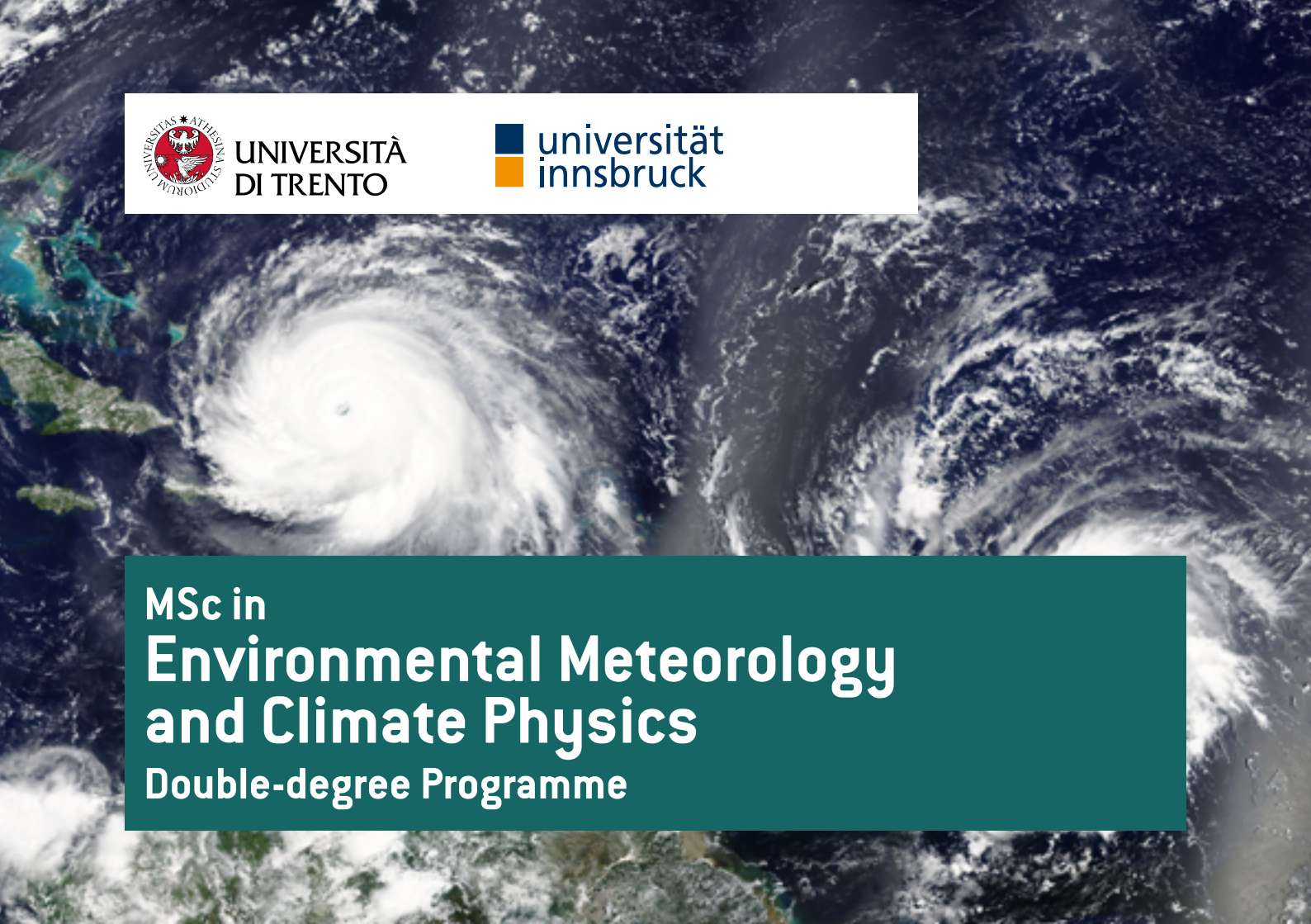

UNIVERSITÀ DI TRENTO

universität innsbruck

MSc in

Environmental Meteorology and Climate Physics

Double-degree Programme

Master of Science in Environmental Meteorology and Climate Physics

The double-degree Master of Science Programme in Environmental Meteorology and Climate Physics is jointly managed by the **University of Trento** and the **University of Innsbruck**.

The courses offered within the programme cover a variety of topics related to **atmospheric and climate processes** and their connections with **environmental systems**.

Students will be stimulated to get familiar with different ways of approaching the sciences of weather, climate and environment, including **experimental** techniques, theoretical **analysis** and numerical **simulations**.

Graduates will be able to prepare and present weather forecasts, perform atmospheric, climate and environmental measurements, analyze and interpret data from observations, as well as run numerical models for the simulation of atmospheric, climate and environmental processes.

Lectures are given at the University of Trento throughout the first year and at the **University of Innsbruck** during the first semester of the second year.

The fourth semester, devoted to the thesis and related activities, may be spent at either of the two Universities, or at another university, research body or operational organization (weather service, environmental agency, etc.) upon suitable agreement.

Programme overview

Degree awarded

- Master of Science - “Laurea Magistrale” - in Environmental Meteorology and Climate Physics awarded by the University of Trento
- Master of Science awarded by the University of Innsbruck

Language

English

Class size

Up to 30 students

Duration

2 years full-time

Intake

- Mid September lectures start in Trento for the 1st year
- Beginning of October lectures start in Innsbruck for the 2nd year

Workload

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

Fees and funding

(approximate range)

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

Admission

Selection criteria

- Assessment of previous studies and their coherence with the programme
- Academic curriculum
- English language proficiency
- Motivation letter
- Interview

Application deadlines

(check online for updates)

- March for non-European citizens living outside Italy
- June for European and Equivalent citizens

Requirements

- Bachelor degree (or equivalent)
- Strong background in the following areas:
  - Mathematics
  - Physics
  - Chemistry
- English at B2 level of the Common European Framework of Reference for Languages

How to apply

- Access the online application form
- Upload the required documents (Bachelor transcript of records, English language certification, statement of purpose, any other useful document)
- Submit your application online by the deadline
- Check online for more information and updates
  corsi.unitn.it/en/environmental-meteorology-and-climate-physics

Study Plan

1st year courses
at the University of Trento

- Introduction to meteorology and climatology (6 ECTS)
- Environmental fluid mechanics (6 ECTS)
- Environmental measurements (9 ECTS)
- Environmental physical chemistry (6 ECTS)
- Atmospheric boundary layer and turbulence (6 ECTS)
- Mathematical models and numerical methods for environmental processes (6 ECTS)
- Hydrology (6 ECTS)
- Advanced topics in modern physics (9 ECTS)
- Elective course (6 ECTS)

2nd year courses

1st semester: at the University of Innsbruck

- Atmospheric radiation and remote sensing (5 ECTS)
- Reading, writing and presenting scientific contents (3 ECTS)
- Atmospheric chemistry and biogeochemistry (6 ECTS)
- Dynamical and synoptic meteorology (6 ECTS)
- Elective courses (10 ECTS)

2nd semester: either at the University of Trento or at the University of Innsbruck

- Master Thesis (30 ECTS)

Career opportunities

The curriculum of the MSc in Environmental Meteorology and Climate Physics aims at preparing highly qualified graduates, who upon specific training will be enabled to exploit their skills and qualifications at an international level as:

- Weather forecasters (in either public or private weather services, or as free-lance professionals)
- Climate analysts
- Consultants (for engineering firms, farmers' organisations, insurance companies, law firms)
- Aviation meteorologists
- Experts in the assessment and/or forecasting of solar radiation, wind and precipitation for energy conversion plants from renewable sources
- Experts in air quality monitoring and management
- Experts in the assessment of climate change effects
- Researchers, academics
- Experts in education and communication: instructors, media operators, teachers

Graduates will acquire competencies and skills to provide support and assistance to other professionals and decision makers in a variety of fields: air quality monitoring and management, civil protection, transport infrastructure management (including aviation, railways, roads and navigation), water resource management, management of systems for energy conversion from renewable sources, agricultural operations, forest management, adaptation and mitigation to climate change impacts

credits@ Lorenzo Giovannini

CONTACT DETAILS

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