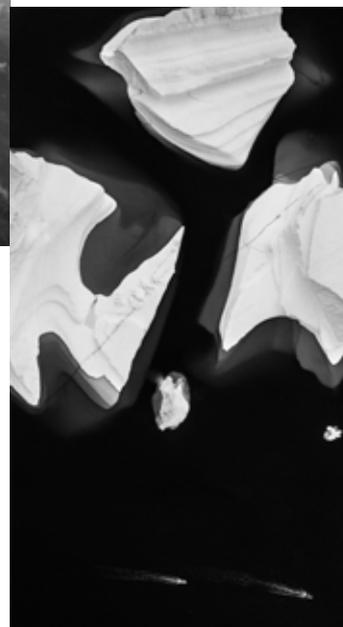


Climate Change:

adaptation and mitigation solutions

2nd Level Specializing Master Programme

January -
December 2020
Torino, Italy



Training innovation experts
for a changing world



POLITECNICO
DI TORINO

master
school

Why choosing this master?

The world is changing rapidly and the ability to anticipate risks and provide effective solutions to face the effects of climate change is more important than ever.

The first edition of the 2nd level Specializing Master's Programme "Climate Change: adaptation and mitigation solutions" represents a unique opportunity for students and professionals with a scientific and/or technical background to:

1. Acquire a full understanding of the dynamics underpinning the ongoing global warming and the associated climatic changes as well as quantifying their impact on the natural and built environment.
2. Receive a complete and detailed overview of the technologies that will drive the transition towards decarbonization in key sectors (e.g. energy, transport, agriculture) and explore how to apply these solutions in real-world situations.
3. Profit from a think-tank environment promoting the exchange of ideas and expertise with researchers from top-level universities and top managers from the private sector.
4. Gain practical experience in a well-established network of important companies engaged in the implementation of sustainability strategies in the field of energy production, food production & processing, and service – provision.





Programme structure

The 2nd level Specializing Master's Programme in "Climate Change: adaptation and mitigation solutions" is a 1-year programme scheduled from January to December 2020, full time from Monday to Friday. It combines 4 taught modules including frontal lectures, lab activities and hands-on tutorials (from January to July), followed by a 500-hour internship in one of the partner companies (between September and November). The award ceremony will be held in December 2020. The successful completion of the Master's Programme will provide students with 63 ECTSs.

The programme is articulated as follows:

Module 1: Preliminary Courses (120 h)

An Introduction to Climate Change 30h
Earth Observation and Climate Monitoring 30h
Climate Policy, Economics and Finance 30h
Energy Transition and Global Sustainability 30h

Module 2: Climate Change Mitigation (120 h)

Carbon Capture and Storage 30h
Carbon Footprinting and Carbon Trading 30h
Sustainable Transport Systems and Infrastructures 30h
Energy-Efficient Buildings and Communities 30h

Module 3: Climate Change Adaptation (90 h)

Climate-Resilient Cities and Communities 30h
Coping with Extreme Events 30h
Food-Water Nexus in a Changing Climate 30h

Module 4: Corporate Approaches to Climate Change (100 h)

Sustainable Management 20h
Corporate Social Accountability 20h
Green Procurement and Sustainable Supply Chain 20h
Climate-Change Compliance Reporting and Communication 20h
Eco – Innovation and Social Entrepreneurship 20h

1 - week workshop with partner companies and site visits

Internship 500h



Our partners

A strong corporate partnership has been ensured through the involvement of a number of relevant stakeholders. Each stakeholder will be appointed to give a 4 hour seminar to explain how the company deals with climate change and will host Master students for their internship period. Top managers from the partner companies will also be involved in the relevant modules.

Corporate partners

FERRERO

LAVAZZA
TORINO, ITALIA, 1895

RI&A

enel

smat



EY
Building a better
working world

Terna

Scientific partners

enel
Foundation

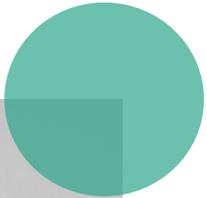
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Faculty

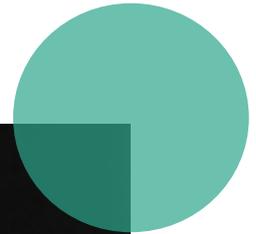
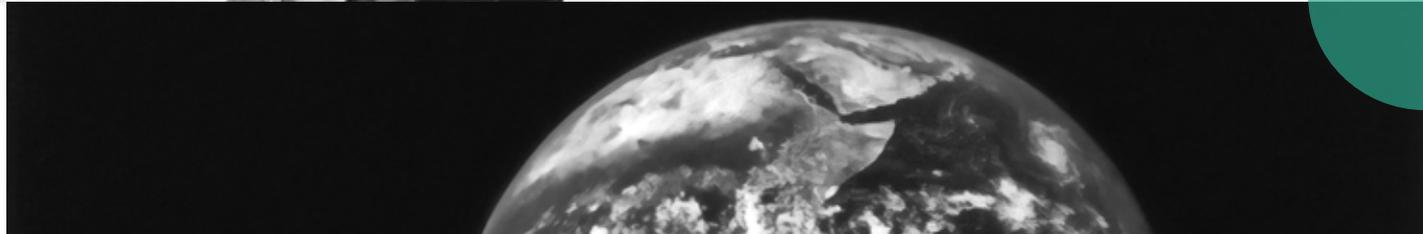
The Master programme offers teaching by highly qualified professionals from academy and research institutions as Cambridge University (UK), Berkeley University (United States), Pontificia Universidad Católica de Chile (Chile), Universitat de Barcelona (Spain), Università di Trento (Italy) and Università di Roma Tre just to name a few. Participants will also have the opportunity to interact with managers from the business sector who will bring their expertise and will shed new light on future challenges and opportunities deriving from the on-going climate crisis.





Career opportunities

About 24 million new jobs will be created globally by 2030 if the right policies to promote a greener economy are put in place¹. Already now, in October 2019, the number of open job positions including the keyword “climate change” is 3,000+ in EU and 11,000+ globally (Source: LinkedIn).



Most of these positions are open to graduate candidates only. This Master programme helps students and professionals to enter this market offering a specialized training suitable for executive positions as climate-change specialists in the innovation and sustainability departments of companies and organizations. These include companies dealing with: infrastructure-resilience and energy transition issues, urban planning and development, insurance and finance, research and development of innovative environmental technologies, certification companies, academic and/or research institutes, government agencies, international organisations and NGOs.

¹*Greening Jobs: World Employment Social Outlook 2018* , International Labour Organisation

"We can fight climate change and create millions of good, green, union jobs in the process"

10/09/2019

The Guardian



"Technological change via energy efficiency in manufacturing is an engine of growth"

05/2016

Energy Policy, Elsevier



"A novel European Green New Deal to tackle climate change"

8/10/2018

Social Europe



"Job prospects vary by country, but most forecasts suggest strong growth internationally throughout the green-building sector."

25/02/2015

Nature

Admission requirements

Applicants must hold a full degree (Master of Science degree/Laurea specialistica/Laurea magistrale) by the enrolment deadline in order to be admitted to this 2nd level Specializing Master's Programme. The programme is intended for graduates who completed a Master's degree course (or equivalent) in the following areas:

- Agricultural science
- Architecture
- Biology
- Chemistry
- Geoscience
- Geography
- Engineering
- Environmental economics
- Physics.

All applicants must prove to have good proficiency in English. Please refer to the Call for applications for details.

The selection will be based on:

- motivation letter and academic background, including a summary of the Master Thesis
- significance and coherence with the Master's topics of the professional and formative experience.
- interview of the short-listed candidates.



Timeline

Application submission by November 22, 2019

Start of the programme: January 2020

Award ceremony: December 2020

Tuition fee and waivers

The participation fee is 4,000 euro for the entire year.

The participation fee includes lectures, didactic materials, and technical visits.

PoliTo will offer two types of merit waivers:

- 10 waivers of 4,000 euro each (covering the entire participation fee).
- 10 waivers of 2,000 euro each (covering 50% of the participation fee).

For further details on waivers please refer to the Call for applications.

Studying at PoliT0

For more than 150 years, Politecnico di Torino (PoliT0) has been an Italian and world-leading institution in education, research, technological transfer, and services in all sectors of architecture and engineering.

Currently, PoliT0 ranks among the top 20 European technical universities for education and research in engineering and architecture.

For additional information please visit:
<https://www.polito.it/>

Living in Turin

Turin is a fascinating city located in the north-western Italy hosting around 870.000 inhabitants. The city offers high living standards and is buzzing with live-concerts, exhibitions and shows happening in a city center which is rich of monuments, museums, art galleries, beautiful architecture, theatres, historical cafés, and restaurants. Turin is famous for its food and its surroundings with small villages full of history and picturesque countryside. Turin is strategically located within reachable distance to ski resorts, natural parks, and mountains.

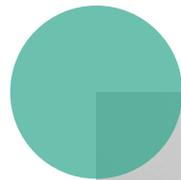
<https://www.turismotorino.org/en>



Connect with us

For questions regarding application procedure, admission requirements and scholarships: master.universitari@polito.it / +39 011.090.3315 .

For enquiries on the educational programme and partnerships: mastercc@polito.it .



At a glance

Starting date January 2020

Course length 1 year

Application submission by November 22, 2019

Participants maximum number 30

ECTS 63

Language English

Venue Politecnico di Torino
Campus Lingotto
Via Nizza 230, 10126 Torino
https://didattica.polito.it/master/home/en/the_campus

Costs The participation fee is 4,000 euro for the entire programme.

Fee waivers 10 waivers of 4,000 euro each (covering the entire participation fee)
10 waivers of 2,000 euro each (covering 50% of the participation fee)

Scientific Coordinator Francesco Laio

Master webpage - Call for applications Link: https://didattica.polito.it/master/climate_change/2020



“The climate emergency is a race we are losing,
but it is a race we can win.”

Antonio Guterres, UN Secretary General at the
Climate Summit, September 2019



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