Master of Research
Science and Management of Climate Change

Second Edition 2019-2020
Climate change is shaking up everything from finance to health

But we don’t have the right people with the right skills in the right places

Daniel Kreeger,
Executive director
Association of Climate Change Officers
HIGHLIGHTS

✓ **1-year program** fully integrated with the PhD in Science and Management of Climate Change

✓ **Customized curriculum**: 12 courses out of 23, 72 CFUs, 400 hours of activities

✓ **Innovative teaching**: hands-on-sessions, discussion groups, labs, seminars, guest lectures from international experts

✓ **International and national internship opportunities**
AN INTERNATIONAL PROGRAM

Students come from all over the world, e.g. India, Brazil, China, Bangladesh, Africa, USA, UK, Germany, ...
WITH A WORLDWIDE EXTENSIVE NETWORK

Global opportunities in top universities and research institutes (e.g. Princeton, Harvard, Stanford, Columbia, WB, Max Planck Institute, …)
OFFERING GLOBAL OPPORTUNITIES

Placement in international organizations (World Bank, ...), development agencies (GIZ, ...) consultancy (CPI, Acclimatise, ...)
COURSEWORK AND STRUCTURE

FOUNDATIONS - FIRST TERM
Climate dynamics, math, stat, machine learning, econometrics, climate change economics ...

METHODS - SECOND TERM
Climate models, climate dynamics, oceans dynamics, decision theory, environmental contamination, climate risk analysis ...

INSIGHTS AND APPLICATIONS - THIRD TERM
Socio-economic impacts of climate change, adaptation, decision support systems, international climate policy, adaptive management of natural resources...
THE MASTER: CLIMATE-RELATED SKILLS

✓ Understand and synthesize the **physical** and **economic** nature of climate change
✓ Assess the **impacts**, **socio-economic effects**, and **uncertainties** related to climate change
✓ Evaluate the socio-economic implications of **mitigation and adaptation policies**
✓ Design **innovative climate policy solutions** in the context of sustainable development
THE MASTER: INTERNSHIP OPPORTUNITIES

Conduct your internship in *Italy* or *abroad*

**Extensive network** of institutions, local governmental agencies, and companies that today are already dealing with climate change, e.g.:

- Euro-Mediterranean Centre on Climate Change
- European Topic Center on Climate Change Impacts
- Mar Fund
- Comune di Padova
- Climate Service Center Germany (GERICS)
THE MASTER IN SHORT

- Opening of the official call: end of April 2019
- Lectures: September 2019- June 2020
- Study support: Loans available from the University's partner banks
- Course fee: 6,000 euro
- Requirements: second cycle degree, English B2 level
- Language: English
CONTACTS

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THANK YOU FOR YOUR ATTENTION
FOUNDATIONS
✓ Introduction to climate dynamics
✓ Atmospheric Dynamics
✓ Numerical Methods and Modeling for Geophysical Fluid Dynamics
✓ Mathematical methods for climate change analysis
✓ Statistical methods for climate change analysis
✓ Climate Change Economics
✓ Econometrics & Machine learning

METHODS
✓ Climate of the past
✓ General circulation models
✓ Climate Dynamics and Predictability
✓ Geophysical Fluid Dynamics
✓ Ocean Dynamics
✓ Decision theory and multi-criteria analysis
✓ Climate Change and Environmental Contamination
✓ Climate Risk Modelling and Assessment

INSIGHTS AND APPLICATIONS
✓ Polar Climate and Sea Ice
✓ Advanced Topics in Geophysical Fluid Dynamics
✓ Natural climate variability and its modes
✓ Socio-Economics Impacts & Adaptation Strategies
✓ Risk Assessment & Decision Support Systems for Impacts of Climate Change
✓ Adaptive Management of Natural Resources and Agricultural Systems
✓ Climate Change Policies
✓ Ice Sheets and Glaciers in the Climate System