

SCUOLA DI INGEGNERIA CIVILE, AMBIENTALE E TERRITORIALE

#### Corso di Laurea Magistrale – M.Sc. programme

# Ingegneria per l'Ambiente e il Territorio Environmental and Land Planning Engineering



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# Environmental and Land Planning Engineering in a changing world: we want you

The Laurea Magistrale (equivalent to Master of Science) in Environmental and Land Planning Engineering provides an education focused on the broad range of professional capabilities and expertise required to deal with and address adequate **engineering frameworks for a sustainable existence and development of the society** in a world of limited resources.

Our mission is to educate engineers who can **exploit natural resources and plan natural and built lands while balancing environmental health and the society's need** for better and safer living conditions.

Environmental global challenges, related to the constant changing world, make clear the evident precariousness of natural resources, and ask for professionals with a high ability to **observe and interpret** phenomena, to **interact** with public and private sectors, to **identify, assist and foster** policies for adaptation and mitigation strategies, to **design, implement and manage** those actions.

The long-lasting imprint of environmental engineers is devoted to a long-term sustainability and a well-being of the society, through the robust implementation of the **One Health concept**, for which a healthy society can soundly develop only in a healthy environment.

http://ww.iat.polimi.it

## Career Opportunities: employers are searching for you

The main employment opportunities are in **engineering companies**, **consultancy firms**, **service enterprises** and **authorities and agencies** involved in:

- design and construction of plants for water and air emissions treatment, energy generation and waste disposal,
- development, production and management of environmental instrumentation, remote sensors and environmental monitoring systems and networks
- construction and maintenance of works and interventions for groundwater protection and purification
- land, environmental, geological and energy resource mapping, planning and control. Additional opportunities are in the sector of **research and development**, offered by both public and private centres. Finally, acquired skills enable the establishment of **start-ups** focused on environmental engineering sector.

There is a great variety of employments coming from the need to face new challenges posed by continuous and rapid changes: have a look to the IAT website to discover where our environmental engineers are working now.

<u>Where are they now?</u> <u>Interviews to former graduates</u> <u>Employment Statistics</u>

### What do you learn attending Environmental and Land Planning Engineering

**Technical and scientific education** is devoted, through specialized courses and laboratories, to the **design**, **implementation and assessment of proper management and intervention strategies**, **as well as individual measures**, in the following general fields of interest:

- infrastructures and strategies for land protection and prevention from natural risks damage and related anthropogenic forcings,
- complex environmental systems and information systems for land management and resource planning,
- engineering processes and technologies for environmental quality reclamation and maintenance, for treatment and resource recovery from liquid, solid and gaseous emissions and for soil remediation
- systems and components for environmental and land resources measurement, diagnosis and control.

The M.Sc. programme provides English courses in all of the planned tracks and also a full track in English (Environmental Engineering for Sustainability). A panoply of specialized courses and laboratories are offered in each track, addressing all the environmental components (air, water, soil and the biota) and the impacts due to natural hazards and to human activities, as well as actions for the adaptation and mitigation.

In addition to lectures, the M.Sc. programme has designed various **training activities** that provide the opportunity to direct experience and practice theoretical concepts:

- the **Interdisciplinary teaching Lab for the Environment** (EnvLAB), in which teaching and learning are integrated in "learning by doing" experiences,
- activities outside the classroom and in the field such as visits to technological systems, trips for territorial surveys in urban and natural areas, discovery paths for sustainable mobility.