# POST-GRADUATE TRAINING

Post-graduate training includes the possibility of participating in PhD courses, including the one in Risk and Environmental, Territorial and Construction Development or the Level II Master's Degree in Territorial and Environmental Planning provided by Dicatech Department, where the issues addressed during the course of study are explored in an advanced manner.





### **CONTATTI**

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## CIVIL ENGINEERING

MASTER'S DEGREE **POLIBA** 



Master's Degree in Civil Engineering



orientami.poliba.it





The Master's Degree in Civil Engineering at the Polytechnic of Bari provides advanced courses in the fields of design, construction, and management of civil constructions, with specific reference to issues relating to both the creation of new projects and the restoration and recovery of existing buildings.





## **EDUCATIONAL OBJECTIVES**

The study programme is aimed at first-level degree graduates with a solid preparation in basic sciences and a thorough knowledge of the fundamental disciplines of Environmental Civil Engineering.



#### Location

Courses are taught at the Bari campus.



#### **Duration**

Expected course completion time is 2 years.



#### Language

All lessons, seminars and laboratories are held in italian.



#### Admission

Requirements and preparation.

Course content focuses on the design of civil engineering projects in various areas of application, considering the design of hydraulic systems, the design of structural bodies, geotechnical design, planning and management of transport and mobility,

and the design of road infrastructures.

Civil Engineering graduates gain an advanced technical-scientific background cwith the use of specific knowledge and techniques suitable for use in various production sectors in the fields of construction, civil infrastructures, and the management of isolated or networked systems. Furthermore, graduates will be able to manage and assimilate technological innovations and oversee the evolution of a construction process.

### **SKILLS**



The study programme, divided into 4 separate sections, includes all the disciplines of typical Civil Engineering. Each section is taught from a vocational viewpoint and makes use of an interdisciplinary Design Laboratory for synthesis and comparison with contexts both within and external to the Polytechnic.

#### **CURRENT PROGRAMMES**

- Geotechnics: in-depth study of topics related to the mechanics of soil and rocks and the design and verification of structures and infrastructures interacting with the subsoil, as well as the stability of natural or artificial slopes, under static and dynamic conditions.
- Hydraulics: studies focus on systems for forecasting and mitigating floods and droughts, management control of urban and rural water supply systems, and the design of hydraulic works.
- Structures: specialized aspects of designing new structures and infrastructures are explored; analysis and monitoring of risk; safety verification and adaptation of existing buildings and infrastructure heritage, with particular attention to seismic issues.
- Roads and Transport: seismic issues.
- Roads and Transport: topic areas studied include designing and managing transport and road infrastructures (road and rail), sustainable mobility, sustainable freight and logistics transport, and road safety.

#### INTERNATIONALISATION

A Double Degree agreement is in place between Polytechnic University of Bari -DICATECh and Université Grenoble Alpes. It stems from the Alliance of European Research and Technology Laboratories ALERT Geomaterials of which the Polytechnic University of Bari is a member. The students, following an international training course in English, obtain a double degree: in France, with thesis discussion at the Université Grenoble Alpes; in Italy, with thesis discussion at the Politecnico di Bari. In addition, there are various ERASMUS+ agreements with prestigious European and non-European locations, where it is possible to gain study and internship experience.

# PROFESSIONAL OPPORTUNITIES

The professional fields are innovation and production development, advanced design, planning and programming, and the management of complex and/or innovative systems, both in the self-employed profession and in construction companies and public administrations.

The interdisciplinary competences allow professional and occupational opportunities in

- construction and maintenance companies for civil works, plants and infrastructures
- professional studies and design companies for civil works, plants and infrastructures:
- public offices for the design, planning, management and control of urban and territorial systems:
- companies, bodies, consortia and agencies for the management and control of works and service systems;
- service companies for the feasibility study of the urban and territorial impact of civil engineering infrastructures and for the management of civil facilities and infrastructures;
- universities and research organisations.

The training offered on the course enables graduates to enter the workforce immediately as Senior Engineers, with the opportunity to enroll on the professional register of the Order of Engineers at pro-