



Politecnico
di Torino

Scuola di Master
e Formazione
Permanente



13th edition Tunnelling and Tunnel Boring Machines 2nd Level Specializing Master's Programme



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The Specializing Master's Programmes and Lifelong Learning School of Politecnico di Torino presents the 2nd level Specializing Master's Programme in "**Tunnelling and Tunnel Boring Machines**" for the academic year 2021/2022. The need of experts involved in D&B and in TBM tunnelling as well as tunnel work site management is rapidly increasing throughout the world.

The necessary qualifications to cover these roles cannot be supplied by the first and second level University Programmes, but a specially drawn up programme is needed.

The purpose of the programme is to provide young graduates with a sound of **technical and managerial** knowledge so that they can acquire a **multidisciplinary** knowledge that is necessary to work in the tunnelling sector. In the **T&TBMS programme**, that has now reached its 13th edition, University lectures are merged with lectures/presentations by experts from **construction companies**, machines producers, design companies and professional to provide the multidisciplinary knowledge that is necessary to work in this sector.

The students who attended the **2nd Level Specializing Master's Programme** in Tunnelling and Tunnel Boring Machines are of interest for design firms, construction companies involved in tunneling and for tunneling tools suppliers as well as producers of Tunnel Boring Machines and public administrations.

The teaching programme includes **7 months of classroom activities** with academic and corporate teaching staff and it is structured as follows:

- 9 course divided in three modules
- Internship
- Final project

The teaching programme is structured as follows:

Starting date: January 2022 (a.y. 2021/2022)

Duration: 12 months.

Language: English

ECTS (European Credit Transfer System): 60 (including classes, practical training and project work)

Format: full time

Campus: Politecnico di Torino - Lingotto Campus

Who can attend: The programme is addressed to graduate students having completed a Master's degree programme (or equivalent title) in the areas of studies of Civil Engineering, Environmental Engineering and Geology.

COURSES	ECTS	HOURS
Tunnel design and construction method	8	80
Rock Mass Characterization. Geo investigations and risk assessment	6	60
Tunnel supports	5	50
Numerical design	3	30
General aspects of mechanized tunnelling and Hard Rock TBMs	8	80
Soil mechanics tunneling	6	60
Plants and microtunneling	3	30
Contractual and legislative aspects, work sites management, quality	4	40
Safety and environmental issues of work sites	3	30
Final Project	4	100
Internship	10	250
Totale	60	930

CONTACTS

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🌐 https://didattica.polito.it/master/tunnelling/2022/at_a_glance

📘 @MasterSchoolPoliTO



Politecnico
di Torino



For over 150 years, **Politecnico di Torino** has been one of the most prestigious public institutions at both national and international levels in the field of **education, research, technology transfer** and services in all sectors of Architecture and Engineering. Its long history demonstrates how the University has grown into a focal point for education and **research in Italy and in Europe**. Today, Politecnico di Torino is an internationally recognized Research University which attracts students from **120 countries** and runs about **800 projects per year** in cooperation with businesses, public and private institutions, local organizations.

The Specializing Master's Programmes and Lifelong Learning School is a centre of excellence which defines ground-breaking educational policies and addresses the demands of the economic context. The School's programmes are designed to meet the need for **high-level technical training** that boosts the knowledge base already acquired by students during the traditional degree paths. The programmes also actively address the **constantly changing requirements of the world of work**, support and develop students' **competitiveness and entrepreneurial skills**.

The School addresses the **needs of scientific and technological innovation** expressed by industry and the service sector. It designs and implements **tailor-made training programmes** for recent graduates, **newly employed staff and senior professionals**. To this end, the School has built **partnerships with other Italian and international universities**, as well as with public bodies and major corporations.

The programmes allow participants to acquire **on-the-job training** thanks to the opportunity to gain experience in a company, in Italy or abroad. The Master's programmes and training courses are intended for Italian and international students, since they are consistent with the **University's internationalization process** and preserve its **traditional connection with the local community**.