MSc in Mathematics
The MSc in Mathematics aims at teaching and developing future mathematicians and scientists, who acquire a thorough knowledge and understanding of those theoretical principles which are the basis of mathematical sciences. Students can choose among four curricula (Advanced Mathematics, Teaching and Scientific Communication, Mathematics and Statistics for Life and Social Science, Cryptography), that share a set of common objectives, including:

- ability to work autonomously and to assume responsibility for plans and structures of great dimensions;
- overview of the scientific research method, the method of logical-deductive reasoning, as well as the inductive methods applied to experimentation;
- knowledge of the fundamentals of pure mathematics and one advanced specialization along with their mathematical applications.
# Programme Overview

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<th><strong>Degree awarded</strong></th>
<th><strong>Language</strong></th>
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<td>Master of Science - “Laurea Magistrale” - in Mathematics</td>
<td>English</td>
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<th><strong>Workload</strong></th>
<th><strong>Intake</strong></th>
<th><strong>Fees and funding (approximate range)</strong></th>
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| The total workload for each student is 120 ECTS (European Credit Transfer System) | September each year | - EU: 340€ - 3.400€ (based on income/merit)
- Non-EU: 1.000€ - 4.500€ (based on merit)
- Income/merit based scholarships and tuition waivers available |

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<th><strong>Duration</strong></th>
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<td>2 years full-time</td>
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Admission

Application deadlines
(check online for updates)
- February for non-EU citizens living outside Italy
- From June to November: rolling admission for EU citizens and non-EU citizens regularly living in Italy

How to apply
- Access the online application form
- Upload the required documents
- Submit your application online by the deadline
- Check online for more information and updates: www.unitn.it/mastermaths

Selection criteria
- Assessment of previous studies and their coherence with the programme
- Academic curriculum
- English language proficiency (if higher than B1)
- Statement of purpose
- Possible interview

Requirements
- Bachelor degree (or equivalent) in Mathematics or related fields
- Strong background in Mathematics
- English at B1 level of the Common European Framework of Reference for Languages
Study Plan
The MSc in Mathematics is divided into four curricula:

Advanced Mathematics
It includes a large spectrum of areas of mathematics, meant for students who want to continue their education at the Doctorate level. It offers three particular study plans:
- General Advanced Mathematics
- Advanced Algebra and Geometry
- Calculus of Variations, Partial Differential Equations and Dynamical Systems

Teaching and Scientific Communication
It prepares students for school teaching and scientific dissemination (e.g. museums, shows).
Mathematics and Statistics for Life and Social Science

It offers four distinct study plans in applied mathematics:

- Mathematics for Data Science
- Modelling, Statistics and Analysis of Biosystems
- Modelling and Simulation for Biomedical Applications
- Modelling, Statistics and Analysis in Mathematical Finance

Cryptography

It introduces the theoretical and practical aspects of modern cryptography and error correcting codes and showing how important methods adopted in mobile phones, smart cards, browsers or decoders are constructed starting from very refined algebraic and geometric theoretical instruments.

It offers two particular focuses:

- internship-oriented
- research-oriented
Beside the several international mobility opportunities active on this master’s degree, enrolled students can apply for a dual degree programme with Eberhard-Karls-Universität, Tübingen (Germany).
Our graduates are welcomed by national and international companies where they can apply their skills in mathematics and critical thinking. They usually find a job within three months and a half after graduation (Almalaurea).

According to the curriculum and activities chosen, graduates will be able to work in companies and industry, laboratories and research centers, scientific culture dissemination field, services and Public Administration.

Flexible thinking, computational and computer science competences, familiarity with management analysis and treatment of numerical data make them excellent candidates in several fields, e.g. computer science, cryptography, finance, engineering, medical science, communication, scientific and academic research.

In particular, graduates can carry out expert work as application technicians and statistical technicians. They are also fit for the professions of statistical mathematicians and for most of the profiles in Information Technologies.
CONTACT DETAILS

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