Master’s Programs in Mathematics

TUM Master’s Days 2024

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Studying Mathematics

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Mathematics @ TUM

- top address in mathematics
- wide variety of courses
- great choice of minor modules
- great reputation in the labor market
- specialized degree programs
- English as language of instruction
Study Programs @ TUM
Study Programs

- Mathematics
- Math. in Science & Engineering
- Math. in Data Science
General Structure

1st sem.
30 CP

2nd sem.
30 CP

3rd sem.
30 CP

4th sem.
30 CP

+ prerequisite courses

+ going abroad

internship

seminar

MSc thesis
Math. Finance & Actuarial Science

- Finance, Risk, Portfolio Theory
- Insurance Mathematics
- Econometrics, Management
Math. Finance & Actuarial Science

Modules
- Specialization: Math. Finance or Act. Science
- Prob. Theory / Statistics
- Applied / Pure Math
- Management

Specific Prerequisites
- math bachelor
- intro in prob. and stat.
- measure-theoretic prob. theory
Mathematics in Data Science

- Statistics, Data Analytics, Optimization
- Machine Learning, Data Engineering
- Computer Science
Mathematics in Data Science

Modules
- Foundations in DA / DE
- Analytics (MA/IN): Data Mining, Machine Learning
- DE (IN): Database Systems, Cloud Computing

Specific Prerequisites
- math bachelor
- informatics minor
- algorithms
- databases
Mathematics in Science & Engineering

- Scientific Computing
- Applied Analysis
- Applications: Engineering, Health, Informatics, ...
Mathematics in Science & Engineering

Modules
- Applied Analysis
- Scientific Computing
- Optimization
- Case Studies
- Applications (individual specialization)

Specific Prerequisites
- math bachelor
- vector analysis
- differential equations
- numerics
Mathematics

- wide variety of subjects
- optional area of concentration
- optional minor
Mathematics

Optional Specialization
- Analysis & PDE
- Algebra & Geometry
- Probability
- Scientific Computing
- Optimization
- Biomathematics

Optional Minor
- Informatics
- Physics
- Economics
- Chemistry, Life Sciences
Application & Prerequisites
Prerequisites

- math bachelor (or closely related)
- good grades
- qualifications: advanced math modules, specific modules
- letter of motivation
- language certificate (EN, unless BSc language of instruction)
- document verification: uni-assist (non-EEA)
- APS certificate (China, India, Vietnam)
Prerequisites (Data Science)

- math / **informatics** bachelor
- good grades
- sufficient qualifications: math & **info** modules, specific modules
- letter of motivation & essay
- language certificate (EN, unless BSc language of instruction)
- **possibly GRE**, **possibly APS certificate**
- document verification: uni-assist (non-EEA)
Tuition Fees for Students from Non-EU Countries

- no fees for EU/EEA students
- no fees with German bachelor degree
Tuition Fees for Students from Non-EU Countries

- no fees for EU/EEA students
- no fees with German bachelor degree
- fees of 6000,–€ per semester
- merit scholarships
- waiver programs for students in need
Questions
https://www.cit.tum.de/en/cit/studies/