Course Overview
Master Studies in Mathematics

Master’s Thesis

Seminar, Internship, Soft Skills

Bachelor Mathematics

Mandatory:
- MA1001 Analysis 1
- MA1002 Analysis 2
- MA1101 Linear Algebra 1
- MA1102 Linear Algebra 2
- MA1401 Introduction to Probability
- MA1302 Introduction to Numerical Analysis
- MA1902 Introduction to Mathematical Modeling

- MA2001 Measure and Integral
- MA2004 Vector Analysis
- MA2005 Ordinary Differential Equations
- MA2006 Complex Analysis
- MA 2101 Algebra
- MA 2203 Algebraic Structures in Geometry
- MA2204 Elementary Differential Geometry
- MA2302 Numerical Analysis
- MA2402 Basics Series of Statistics
- MA2404 Markov Chains
- MA2501 Algorithmic Discrete Mathematics
- MA2503 Introduction to Nonlinear Optimization

Recommended:
- MA2409 Probability Theory
- MA3082 Nonlinear Dynamics

- MA3001 Functional Analysis
- MA3005 Partial Differential Equations
- MA3081 Dynamical Systems
- MA4064 Fourier Analysis

- MA3101 Computer Algebra
- MA3203 Projective Geometry
- MA3205 Differential Geometry
- MA3502 Discrete Optimization

- MA3409 Probability Theory
- MA3402 Computational Statistics
- MA3403 Generalized Linear Models
- MA3411 Time Series Analysis

- MA3503 Numerics of Differential Equations
- MA3504 Nonlinear Optimization: Advanced

- MA2409 Probability Theory
- MA3082 Nonlinear Dynamics

- MA3001 Numerics of Differential Equations
- MA3005 Partial Differential Equations
- MA3081 Dynamical Systems
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For additional information, please refer to the examination regulations and module guidelines.

Only in three different sections (A1.1-A1.4 and A1.6) students have to obtain min. 9 ECTS.
Course Overview
Master Studies in Mathematics

Prerequisite Courses
- MA2003
- MA2004
- MA2005
- MA3082

Analysis
- MA4064
- MA3005
- MA3001
- MA3081

Algebra, Geometry and Discrete Mathematics
- MA3101
- MA3203
- MA3205
- MA3502
- MA4502

Probability Theory, Statistics and Financial Mathematics
- MA2402
- MA3403
- MA3405
- MA3702
- MA3701
- MA3411
- MA3402

Numerics, Scientific Computing, Nonlinear Optimization and Model Building
- MA4503
- MA3503
- MA3301
- MA3601
- MA3602

Prerequisite Courses
- MA2101
- MA2203
- MA2204
- MA2501
- MA2504*

* In the summer term 2012 started MA2504 (previous modules are MA3501 and MA3504)

For additional information, please refer to the examination regulations and module guidelines. The above-mentioned courses are only a selection of a great variety of lectures available at the Faculty of Mathematics of the TUM.