

## t.MAE1 - Mathematik: Analysis für Ingenieure 1

**Person responsible for the course:** Marcello Robbiani, roma

**Credits:** 3

**Valid for:** 2010/2011

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### Learning objectives:

This course

- provides the mathematical armamentarium and the mathematical skills needed for the engineering courses
- introduces to the mathematical approaches of problem solving and trains abstract thinking
- allows for the common knowledge in mathematics

### Course content:

sets and predications

numbers and number systems

polynoms and polynomial functions

rational functions

sequences and series

limits and convergence

Introduction to the calcuclus of polynomial and rational functions

- differentiation

- integration

Ad hoc:

- elementary error analysis

- descriptive statistics

### Previous knowledge:

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### Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x(2L+2L)
Tutorial/Practicum	
Group teaching	
Block instruction	
Seminar	

### Assessment:

According to the table or as specified in writing by the lecture at the beginning of the semester!

Number	Type	Weighting
1	End of term exam	0,6
2	Exam during the semester	2 x 0,2
	Further assessments	

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**Language of instruction:**

German

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**Instruction material:**

Courant: Differential- und Integralrechnung 1&2. Springer

Mayberg, Vachener: Höhere Mathematik. Springer

Jänich: Mathematik 1&2. Springer

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**Comments:**

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