

## t.MAE2 - Mathematik: Analysis für Ingenieure 2

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

**Credits:** 3

**Valid for:** 2010/2011

**Last saved:** 08.09.2010 07:54

### 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:

power and root functions

exponential functions and logarithms

trigonometric functions and arcus functions

elementary theory of vibrations

calculus of real functions in one variable

- curve analysis and elementary optimisation

- integration methods

- length, area and volume

- baricenters and moments

the concept of differential equations - selected examples

ad hoc:

- descriptive statistics (continuation)

### Previous knowledge:

-

### 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	

---

**Language of instruction:**

German

---

**Instruction material:**

Courant: Differential- und Integralrechnung 1&2. Springer

Mayberg, Vachenaue: Höhere Mathematik. Springer

Jänich: Mathematik 1&2. Springer

---

**Comments:**

-