

## t.MKK2 - Mechanik Kinematik und Kinetik 2

**Person responsible for the course:** Jürg Meier, mrjg  
**Credits:** 3  
**Valid for:** 2010/2011  
**Last saved:** 16.12.2010 11:53

### Learning objectives:

The students:

- are able to formulate and solve the motion equations of rigid bodies
- are able to solve simple impact problems (mass point and rigid bodies)
- are able to solve simple multi-body systems by simulation tools (e.g. RecurDyn)
- are able to perform simple analyses of systems with moving coordinate systems
- know the basics of stress measurement by strain gauges

### Course content:

Lecture and exercises:

- Kinetics of rigid bodies (applications)
- Introduction to the simulation of dynamics systems by software tools (e.g. RecurDyn)
- Impact mechanisms
- Relative motion of a mass point

Practice:

- Introduction to of strength analysis by strain gauges (1x)
- Strength analysis for simple structures (1x)
- Simulation of dynamic systems by RecurDyn (2x)

### Previous knowledge:

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### Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x2L
Tutorial/Practicum	4x3.5L
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	60%
1	Exam during the semester	20%
2	reports: 1 simulation, 1 stress measurement	10% each

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**Language of instruction:**

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**Instruction material:**

Gross, Hauger, Schnell, Schröder: Technische Mechanik 3

Wriggers, Ehlers, Gross: Formeln und Aufgaben zur Technischen Mechanik 3  
or script of the lecturer

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**Comments:**

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