

t.MKK2 - Mechanik Kinematik und Kinetik 2

Person responsible for the course:	Jürg Meier, mrjg
Credits:	3
Valid for:	2011/2012
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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. Simulink)
 - are able to perform simple analyses of systems with moving coordinate systems
 - know the basics of stress measurement by strain gauges
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Course content:

Lecture and exercises:

- Kinetics of rigid bodies (applications)
- Introduction to the simulation of dynamics systems by software tools (e.g. Simulink)
- 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)
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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

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

Comments:

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