

t.MEST1 - Mechanik für Systemtechnik 1

Person responsible for the course: Michael Warden, wami

Credits: 2

Valid for: 2010/2011

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Learning objectives:

The students are familiar with the basic concepts and notions of statics. These include space, mass, force, torque, point mass, rigid body and distributed forces. The students are capable of analyzing systems in equilibrium by assuming they are rigid bodies. They can calculate reaction forces at supports and connections for three dimensional structures in equilibrium.

The students can calculate internal forces and moments of beams, which are subjected to external forces.

The students learn how to analyze real world technical systems by introducing and analyzing appropriate simplified models.

Course content:

Lectures:

- Fundamental concepts
- Concurrent forces
- Force Systems and equilibrium of rigid bodies
- Centers of gravity
- Reactions at supports
- Internal forces

Problem solving:

Problems are given which have to be solved as home work. These are discussed in the lectures.

Previous knowledge:

none

Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x2
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	0.8
1	Exam during the semester	0.2
	Further assessments	

Language of instruction:

German

Instruction material:

Technische Mechanik 1: Band 1: Statik von Gross, Hauger, Schröder und Wall: ISBN 978-3-540-68394-0

Comments:

none