Zurich University of Applied Sciences

School of Engineering

t.MFEM - Mechanik Finite Elemente Methode

Person responsible for the course:	Jürg Meier, mrjg
Credits:	3
Valid for:	2010/2011
Last saved:	17.12.2010 16:23

Learning objectives:

The student

- is able to perform stress analyses of components with the Finite Element Method (FEM)
- is able to perform common optimizations of components and assemblies by FEM
- gained insights into different applications of FEM
- is able to apply the FE-tool in a meaningful way to project assignments and the bachelor's thesis

Course content:

- Basics of the theory of the finite-elements-method
- stress analyses
- Centrifugal force's loads
- Thermal analyses
- Modal analyses
- Contact analyses
- Non-linear material behaviour
- Anisotropic material behaviour
- Modelling of assemblies

Previous knowledge:

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Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	
Tutorial/Practicum	
Group teaching	14x3L
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	25%
1	Analysis project report	35% (with end term exam)
2	Analysis exercise reports	20 % each

Language of instruction:

Deutsch

Instruction material:

Script of the lecturers

FEM Klein, Bernd Vieweg 6 2005

Comments:

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