Zurich University of Applied Sciences

School of Engineering

t.MFEM - Mechanik Finite Elemente Methode

Person responsible for the course:	Jürg Meier, mrjg
Responsible OU:	
ECTS:	3
Valid for:	2012/2013
Last saved:	20.06.2013 15:27

Expertise:

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Methodological skills:

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Social skills:

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Personal skills:

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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	14x3L
Tutorial/Practicum	
Block instruction	

Assessment:

According to the table or as specified in writing by the lecture at the beginning of the semester!

description	type	form	scope	assessment	weighting
Performance records during school hours	Analysis exercise reports	writen			40%
Semester end exam	Report and Test	writen			60%

Language of instruction:

Deutsch

Instruction material:

Script of the lecturers

FEM Klein, Bernd Vieweg 6 2005

Additional literature:

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Comments:

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