Zurich University of Applied Sciences

School of Engineering

t.MFL1 - Mechanik Festigkeitslehre 1

Person responsible for the course:	Jürg Meier, mrjg
Credits:	3
Valid for:	2010/2011
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Learning objectives:

The students are able to

- determine tensile and compressive stress on thin-walled vessels caused by internal pressure or centrifugal loads.
- determine the 1st and 2nd moments of inertia on asymmetric cross sections
- compute stress and deformations of beams loaded by uniaxial and unsymmetrical bending moments

Course content:

- Bars with variable cross sections under centric tension or pressure
- Thin-walled vessels
- 1st and 2nd order moments of inertia on symmetric and asymmetric cross sections
- Calculation of bending stress and beam deformation on uniaxial bending load
- Calculation of bending stress and beam deformation on biaxial bending load

Previous knowledge:

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Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x3L
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	60 %
2	Test during semeseter	20% each
	Further assessments	

Language of instruction:

Deutsch

Instruction material:

Script of the lectuerer, possibly use of the books Technische Mechanik 2: Gross, Hauger, Schnell
Formeln und Aufgabe zur Technischen Mechanik 2: Gross, Schnell, Ehlers, Wriggers

Comments:

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