

t.FTH2 - Fluid- und Thermodynamik 2

Person responsible for the course: Joachim Borth, bthj

Credits: 4

Valid for: 2010/2011

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Learning objectives:

Presentation of change of state in phase diagrams

Ability to apply energy balances

Ability to analyse simple energy systems and components

Course content:

Lectures:

- Equation of states
- First law of thermodynamics for open and closed systems
- Second law of thermodynamics
- Different processes of ideal gas
- Compressible flows
- The Carnot cycles
- Simple thermal power processes with ideal gases
- Properties of real substances

Practice:

- Centrifugal Pump
- Tube Friction
- Characteristic of ventilators
- Piston compressor (Burckhardt)

or

- Multi cell compressor
- fuel cell

Previous knowledge:

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Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x3L
Tutorial/Practicum	4x4L
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	2 lectures (60%)
2	Exam during the semester	1 lectures (total 40%)
4	practicum report(s)	have to be accepted

Language of instruction:

Deutsch

Instruction material:

Cerbe, Wilhelms, Technische Thermodynamik

Comments:

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