

t.VT - Verfahrenstechnik

Person responsible for the course: Markus Weber Sutter, webm

Credits: 4

Valid for: 2010/2011

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Learning objectives:

Gaining knowledge of mechanical and thermal process engineering that is at the same time fundamental and somehow encompassing as well as thorough and detailed with respect to a limited number of selected subjects. The emphasis will be on aspects that are relevant to the manufacturing and processing of special materials.

Course content:

1) Mechanical process engineering
characterization of dispersed systems
sieves and mechanical separation by the use of sieves
phase separation - processing and apparatus
mixing and stirring
fragmentation

2) Thermal process engineering
thermodynamic phase behavior of multi-component systems
thermal separation processes
kinetics of mass transfer

Previous knowledge:

Besides having been screwing around at least for one year in any natural science or engineering major, none (i.e. we will accept anyone who is not a clueless idiot).

Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14 x 3
Tutorial/Practicum	14 x 1
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	100%
	Exam during the semester	
	Further assessments	

Language of instruction:

German (in case of a significant fraction of international students, English is an option)

Instruction material:

lecture notes of Prof. em. Dr. A. Stuecheli

appropriate textbooks will be recommended

There will be homework problems that are not mandatory.

Comments:

It will be at the lecturer's discretion to assign to any student a grade that is higher than the one this student achieved in the final exam due to his or her substantial contributions during classes when working through the homework examples.