

t.WT1 - Werkstofftechnik 1

Person responsible for the course: Arnd Jung, jung
Responsible OU:
ECTS: 2
Valid for: 2012/2013
Last saved: 22.04.2013 15:52

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:

Advanced knowledge about metallic materials, heat treatments, their properties and applications.

Course content:

Lectures:

- Heat treatments
- Metallic materials: cast iron, aluminium alloys, titanium alloys, magnesium alloys, nickel base alloys,

Practice:

3 experiments, 3 lessons each, teamwork:

- Recrystallisation of aluminium
 - Mechanical properties of polymers
 - Fatigue behaviour of aluminium alloys
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Previous knowledge:

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Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x2L
Tutorial/Practicum	3x3L
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					
Semester end exam					

Language of instruction:

English

Instruction material:

lecture notes

E. Roos, K. Maile, Werkstoffkunde für Ingenieure Grundlagen, Anwendung, Prüfung, Springer-Verlag, 3. Auflage, 2008, ISBN 978-3540220343

M. F. Ashby, D. R. H. Jones, Engineering Materials 2: An introduction to Microstructures, Processing and Design, Elsevier

Additional literature:

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Comments:

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