

## t.MSRT2 - Mess-, Steuer- und Regelungstechnik 2

**Person responsible for the course:** Urs Glauser, glsu

**Credits:** 4

**Valid for:** 2010/2011

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### Learning objectives:

- Concept of PID-control, transfer elements
- Modeling and simulation of dynamic systems and closed loops circuits
- Types of controllers, controller settings and commissioning
- System stability

### Course content:

- Characteristics of control elements
- Basic types of transfer elements, control paths, rating of controllability
- P-, PI-, PID-controllers, command action and disturbance reaction
- Robustness, optimal controller settings

### Lab:

- Step response and frequency response methods
- Modelling and simulation of physical systems
- Command action and disturbance reaction of physical systems
- Operating and testing of closed loop control plants

### Previous knowledge:

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### Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x2L
Tutorial/Practicum	7x4L
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%
1	Exam during the semester	20%
8	Further assessments	20%

### Language of instruction:

Deutsch

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**Instruction material:**

Skript

Einführung in die Regelungstechnik, Mann Heinz, Schiffelgen Horst, Froiep Rainer, Hanser 11. Aufl. 2009

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**Comments:**

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