

## t.SYAT2 - System- und Automatisierungstechnik 2

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

**Credits:** 4

**Valid for:** 2010/2011

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### Learning objectives:

To know

- Open and closed control loops of electric drives
- Processing and visualisation of process data
- Complex automation applications
- Fuzzy logic, neural network
- Digital control systems
- Modelling and simulating complex systems
- Design of state variable feedback systems

### Course content:

Motion control with PLC:

- Visualization of process data, operate and monitor of equipment with HMI (human machine interface)
- Layout of automation equipment
- Fuzzy logic
- Concept, simulation, programming, and commissioning of complex control circuits
- Ratio and cascade control, multivariable control

### Previous knowledge:

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### Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x2L
Tutorial/Practicum	14x2L
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%
1	Further assessments	20%

### Language of instruction:

Deutsch

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**Instruction material:**

Skript

Automatisieren mit SPS - Theorie und Praxis, Zastrow Dieter, Wellenreuther, Günter; Vieweg 4. Aufl. 2008

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

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**Comments:**

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