

## t.EK2 - Elektronik 2

**Person responsible for the course:** Hanspeter Hochreutener, hhrt

**Credits:** 4

**Valid for:** 2011/2012

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### Learning objectives:

Deepen comprehension of semiconductor devices and their applications.

Main focus: linear amplifiers.

### Course content:

Introduction to a simulation software with the aid of buck-, boost-converters and switching power supplies.

Transistor amplifier: operating point, negative DC feedback, signal amplification, negative AC feedback, basic circuits, coupling condensers, Miller-capacitance.

Real operational amplifier: offset, rejection ratios, unity-gain-bandwidth, slew rate.

Current sources and differential amplifiers.

Introduction to signal transmission, filters and oscillators.

Audio power amplifiers serve as concrete examples for above topics.

### Previous knowledge:

t.EK1: Elektronik 1

### Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	
Tutorial/Practicum	
Group teaching	14*4
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%
2	Exam during the semester	40%
	Further assessments	

### Language of instruction:

german

### Instruction material:

Scripts and exercises on disposal for printing.

<http://www.zhaw.ch/~hhrt/EK2/>

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**Comments:**

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