

## t.EREN1 - Erneuerbare Energien 1

**Person responsible for the course:** Joachim Borth, bthj  
**Credits:** 4  
**Valid for:** 2011/2012  
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### Learning objectives:

The students are familiar with the functionality, with operating, with planning and dimensioning and with economical and ecological aspects of systems for the use of renewable energies.

### Course content:

#### Lectures

- Energy statistics and economic efficiency of renewable energies
- The CO2 problem, the 2000-Watt-society
- Wind power
- Power systems for the usage of renewable energies
- Heat pumps
- Solar thermal power stations
- Seasonal storage of energy
- Biomass for power-, fuel- and heat-production
- Geothermal Energy
- Minergie- and low-energy houses

#### Practice

- Calculation exercises, case studies
- Lab work "Solar Energy", "Heat Pump"

### Previous knowledge:

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### Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	12x4L
Tutorial/Practicum	2x4L
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	2 lectures (80%)
	Exam during the semester	
2	Further assessments	2 reports (20%)

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**Language of instruction:**

German

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**Instruction material:**

hand-outs

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**Comments:**

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