

# Energy System Analysis

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Date	Mon 1pm-4pm, VAW B1
Hours/Credit points	4 credits
Type	Kernfach
Course number	227-1631-00G

## Subject

The aim of the course is to give an introduction to the methods and tools for analysing energy consumption, energy conversion, and energy flows. Environmental aspects are included as well as economic considerations. Different sectors of society are treated, such as electric power, buildings, and transportation. Models for energy system planning will also be introduced.

## Contents

- Introduction. Basic definitions. Energy flows.
- Energy flows 1. Industrialised country. Developing country.
- Energy flows 2. Exercise (mandatory).
- Environmental impacts of energy conversion and use.
- Electric power System 1, Technical Part.
- Electric Power Systems 2, Technical Part + Power Markets.
- Energy in Buildings 1.
- Energy in Buildings 2.
- Transportation and Mobility 1.
- Transportation and Mobility 2.
- Life Cycle Analysis of energy use and related cost.
- Energy Systems Models 1.
- Energy Systems Models 2.

- Lecture notes are available at [ILIAS](#)

Documents Download

Lecture plan 