

Course number: SET 10510 Electrical Engineering Study Level: Bachelor / Undergraduate

Prof. Dr. Peter Abele Language of Instruction: English ECTS Credits: 5

Subject-specific competencies:

- The students can calculate and analyse linear passive electrical networks.
- They are familiar with the basics of electrical modeling.
- They acquire basic knowledge of electric and magnetic fields.

Methodological competencies:

- The students can analyse and calculate simple DC circuits

Personal competencies:

- The students can linearize characteristic curves at the operation point
- They are familiar with modeling of simple devices

Teaching content:

- Basic physical terms in electrical engineering
- DC circuits (unbranched circuits, branched circuits, electrical energy and circuits, electrical energy and power, methods of network calculation)
- Electric and magnetic fields (electric flow field, electrostatic fields, magnetic flux, induction)