

Course Manual GE2

Electrical Engineering 2 (Basics)

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– General information

Long name Electrical Engineering 2
(Basics)

Approving CModule [GE2_BaET](#)

Responsible Prof. Dr. Rainer
Kronberger
Professor Fakultät IME

Valid from summer semester 2021

Level Bachelor

Semester in the year summer semester

Duration Semester

Hours in self-study 78

ECTS 5

Professors Prof. Dr. Rainer
Kronberger
Professor Fakultät IME

Requirements math, physics

Language German

Separate final exam Yes

Literature

Moeller, Grundlagen der Elektrotechnik, Teubner

Hagmann, G., Grundlagen der Elektrotechnik, Aula-Verlag

Albach, Manfred, Elektrotechnik 1+2, Lehrbuch und Aufgabensammlung, Pearson Verlag

Hagmann G., Aufgabensammlung zu den Grundlagen der Elektrotechnik, Aula-Verlag

Final exam

Details written exam

Minimum standard 4.0

Exam Type EN Klausur

– Lecture / Exercises

Learning goals

Goal type	Description
Knowledge	Voltage, current, resistance, inductance and capacitance power in AC circuits, analysis of AC circuits, capacitors, inductors, resonances
Skills	learn the principles of electrical currents and voltages in AC circuits learn to calculate AC currents and voltages learn how to analyse AC circuits learn how to design AC circuits

Special requirements

F07_GE1

Accompanying material

lecture script, printed and electronic version, Compendium of exercises, printed and in electronic form

Separate exam

No

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	2
Exercises (whole course)	1
Exercises (shared course)	0
Tutorial (voluntary)	1

– Practical training

Learning goals

Goal type	Description
Knowledge	Measurement of the complex electric current, voltage, power and impedance Design of electronic AC circuits consisting of resistors, capacitors and inductors
Skills	Learn the complex interaction of voltage and current in/on electronic components in AC circuits Learn how to design and analyse AC circuits Learn how to use electronic measurement equipment for analysis, design and measurement of AC circuits
Skills	Learn how to display, analyse and compare measurement results

Special requirements

F07_GE1

Accompanying material	Manuals in printed and electronic form
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Separate exam	No
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Expenditure classroom teaching

Type	Attendance (h/Wk.)
Practical training	1
Tutorial (voluntary)	0