

Course Manual ELE

Electronics

Version: 3 | Last Change: 29.09.2019 14:28 | Draft: 0 | Status: vom verantwortlichen Dozent freigegeben

– General information

Long name Electronics

Approving CModule [ELE BaMT](#)

Responsible Prof. Dr.-Ing. Dirk Poggemann
Professor Fakultät IME

Valid from winter semester
2020/21

Level Bachelor

Semester in the year winter semester

Duration Semester

Hours in self-study 60

ECTS 5

Professors Prof. Dr.-Ing. Dirk Poggemann
Professor Fakultät IME
Prof. Dr.-Ing. Klaus Ruelberg
Professor Fakultät IME

Requirements none

Language German, English if necessary

Separate final exam Yes

Literature

G.Hagmann, Grundlagen der Elektrotechnik, AULA

W.F.Oehme, M.Huemer, M.Pfaff, Elektronik und Schaltungstechnik, Hanser

U.Tietze, C.Schenk, Halbleiter-Schaltungstechnik, Springer

R.Woitowitz, K.Urbanski, W.Gehrke, Digitaltechnik, Springer

Final exam

Details Written exam with arithmetic and comprehension exercises, can also be held as Multiple Choice Test

Minimum standard 50% of maximum points

Exam Type EN Klausur

– Lecture / Exercises

Learning goals

Goal type	Description
Knowledge	Basics in Electronics (Voltage, Current, Resistance, Sources, Kirchhoffs Laws, Alternating Current, Passive Devices, Highpass, Lowpass, Oscillator, Transformator, Measurement of electronic Values) Active Devices (Diode, Transistor, Operational Amplifier) Digital Technology A/D- and D/A-Conversion elektrischer Stromkreis Semiconductor Memory Transmission on Wires

Special requirements

none

Accompanying material

electronic slides as presented during lectures
electronic collection of exercises

Separate exam

No

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	3
Exercises (whole course)	1
Exercises (shared course)	1
Tutorial (voluntary)	2