

Course Manual ASS

Analogue signals and systems

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– General information

Long name Analogue signals and systems

Approving CModule [ASS_BaET](#)

Responsible Prof. Dr. Harald Elders-Boll
Professor Fakultät IME

Valid from winter semester
2021/22

Level Bachelor

Semester in the year winter semester

Duration Semester

Hours in self-study 78

ECTS 5

Professors Prof. Dr. Harald Elders-Boll
Professor Fakultät IME

Requirements basic courses
mathematics and
electrical engineering

Language German

Separate final exam Yes

Literature

Jens Rainer Ohm und Hans Dieter Lüke,
Signalübertragung, Springer, 2014

Martin Meyer, Signalverarbeitung, Springer Vieweg,
2014

Martin Werner, Signale und Systeme, Springer
Vieweg, 2008

Bernd Girot u.a., Einführung in die Systemtheorie,
Springer Vieweg, 2007

Final exam

Details study-accompanying
tests and a final exam

Minimum standard At least 24 of the 50
points that can be
gained in total in the
final exam and the two
midterm tests during
the semester. In the
final exam 40 points can
be gained in total, in
the two midterm test 5
points can be gained
each yielding 10 points
in total for the two
tests.

Exam Type EN Klausur



– Lecture / Exercises

Learning goals

Goal type	Description
Knowledge	Introduction to signals and systems convolution in time domain Fourier transform of analog signals correlation functions system representation in frequency domain; frequency response Laplace transform; transfer function; stability of a system Bode diagram ideal analogue filter sampling of analog signals
Skills	Analysis and modeling of electrical networks

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	3
Exercises (whole course)	0
Exercises (shared course)	1
Tutorial (voluntary)	1

Special requirements

none

Accompanying material	Lecture slides as pdf document Exercises with sample solution Former exams Literature on the topic
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Separate exam	Yes
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Separate exam

Exam Type	EN Übungsaufgabe mit fachlich / methodisch eingeschränktem Fokus lösen
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Details	Two midterm tests with exercises dealing with the subjects from the lecture/tutorial that were covered up to that point.
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Minimum standard	Two out of five points that can be scored in total per test.
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