

Course

EM1 - Electronic Media 1

Version: 6 | Last Change: 02.10.2019 08:58 | Draft: 0 | Status: vom verantwortlichen Dozent freigegeben

^ General information

Long name	Electronic Media 1
Approving CModule	EM1_BaMT
Responsible	Prof. Dr.-Ing. Christoph Pörschmann Professor Fakultät: IME
Level	Bachelor
Semester in the year	summer semester
Duration	Semester
Hours in self-study	78
ECTS	5
Professors	Prof. Dr.-Ing. Christoph Pörschmann Professor Fakultät: IME Prof. Dr.-Ing. Klaus Ruelberg Professor Fakultät: IME
Requirements	Basic knowledge mathematics Basic knowledge integral and differential mathematics
Language	German
Separate final exam	Yes

Final exam

Details

Exam - The students apply their knowledge to several practical exercises. Furthermore, they describe and explain some of the technical concepts which were presented in the lecture.

Minimum standard

Calculate simple basic acoustic problems (e.g. level / dB)

Describe simple concepts of media technology and acoustics

Exam Type

Exam - The students apply their knowledge to several practical exercises. Furthermore, they describe and explain some of the technical concepts which were presented in the lecture.

^ Lecture / Exercises

Learning goals

Knowledge

Introduction of the basic acoustic parameters

Sound pressure, sound velocity, flow, power

Logarithmic quantities and levels

Sound propagation in the room

Homogeneous plane wave, point sources

standing waves

resonance systems

diffraction, refraction, reflection

Concepts of loudspeakers and microphones)

Principles of directional microphones

Electrodynamic microphones and headphones

Piezoelectric microphones and headphones

Dielectric microphones

Introduction to electronic media, definition and delimitation of terms

Introduction to colorimetry

Skills

Analysis and description of systems with loudspeakers and microphones

Simple calculations for color space transformation

Simple calculation of video data rates and storage requirements

Expenditure classroom teaching

Type

Attendance (h/Wk.)

Lecture	3
Exercises (whole course)	1
Exercises (shared course)	0
Tutorial (voluntary)	0

Separate exam

none