

Course

KOAK - Communication Acoustics

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^ General information

Long name	Communication Acoustics
Approving CModule	KOAK_BaET , KOAK_BaTIN
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
Requirements	Basic knowledge mechanics knowledge time domain / frequency domain operations Calculations with real and imaginary values Basic knowledge integral and differential mathematics Basic knowledge Acoustics
Language	German
Separate final exam	Yes

Final exam

Details

Oral examination - graded

The students explain the application-related problems using simple examples, they explain and describe how they relate them to practical applications and which conditions must be observed. The students prove that they can relate these concepts independently to real value problems.

Minimum standard

The students need to illustrate simple relationships. The description is supported by the examiner.

Exam Type

Oral examination - graded

The students explain the application-related problems using simple examples, they explain and describe how they relate them to practical applications and which conditions must be observed. The students prove that they can relate these concepts independently to real value problems.

^ Lecture / Exercises

Learning goals

Knowledge

Room simulation method and software tools required therefor

Human hearing system, basic phenomena of auditory perception, psychoacoustic parameters

Human spatial perception

Principles of human speech generation, common methods of speech signal processing

Skills

Analyze and solve problems of sound insulation and noise.

relate psychoacoustic quantities to physical quantities

Analysis and adaptation of spatial sound reinforcement systems

Expenditure classroom teaching

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

Separate exam

none

^ Practical training

Learning goals

Knowledge

Reverberation Time Measurement

Room simulation

Audiometry (Threshold of silence)

Skills

perform practical measurements based on described tasks

create functional measurement setups

prepare adequate documentation for measurements carried out

Evaluate and discuss measurement results

Expenditure classroom teaching

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

Separate exam

none