Technology
Arts Sciences
TH Köln

Course
PHO3 - Phototechniology 3

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⌃ General information

Long name	Phototechnology 3
Approving CModule	PHO3_BaMT
Responsible	Prof. Dr.-Ing. Dirk Poggemann Professor Fakultät IME
Level	Bachelor
Semester in the year	winter semester
Duration	Semester
Hours in self-study	90
ECTS	6
Professors	Prof. Dr.-Ing. Dirk Poggemann Professor Fakultät IME
Requirements	Basic Knowledge in Electronics (Module "Electronics") and Optics (Modules "Phototechnology 1" and "Phototechnology 2")
Language	German
Separate final exam	Yes

Final exam

Details

Written exam with arithmetic and comprehension excercises

Minimum standard

50% of maximum points

Exam Type

Written exam with arithmetic and comprehension excercises

Lecture

Learning goals

Knowledge

Basics in Camera Technology
Image Capturing
Cameratypes
Setup and Adjustment
RAW-Date-/JPEG-mode
Viewfinder
Camera Exposure Measurement
Autofocus
Electronic Imaging
Photoelectric Effect
Semiconductors
Photodiode
CCD-Technology
CMOS-Technology
Color Sensors
Signal Characteristics and Specifications of Digital Image Sensors

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Lecture	3
Tutorial (voluntary)	0

Separate exam

Practical training

Learning goals

Skills

- utilize measurement of photographs and light
- determine sensitometric characteristics of digital cameras by measurements
- analyze Raw-Data of dark images

Expenditure classroom teaching

Type	Attendance (h/Wk.)
Practical training	2
Tutorial (voluntary)	0

Separate exam

Exam Type

working on practical scenarion (e.g. in a lab)

Details

short technical discussion during lab excercise

Reports about lab excercises

Minimum standard

Reports for all lab excercises must be delivered in correct form with correct results