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| <b>Module title</b>   |                          | <b>Abbreviation</b>  |
| Electronics   |                          | 11-A2-132-m01  |
| <b>Module coordinator</b>   |                          | <b>Module offered by</b>   |
| Managing Director of the Institute of Applied Physics   |                          | Faculty of Physics and Astronomy   |
| <b>ECTS</b>   | <b>Method of grading</b> | <b>Only after succ. compl. of module(s)</b>  |
| 6   | numerical grade          | --   |
| <b>Duration</b>   | <b>Module level</b>      | <b>Other prerequisites</b>   |
| 1 semester  | undergraduate            | Certain prerequisites must be met to qualify for admission to assessment. The lecturer will inform students about the respective details at the beginning of the course. Registration for the course will be considered a declaration of will to seek admission to assessment. If students have obtained the qualification for admission to assessment over the course of the semester, the lecturer will put their registration for assessment into effect. Students who meet all prerequisites will be admitted to assessment in the current or in the subsequent semesters. |
| <b>Contents</b>   |                          |  |
| Principles of electronic components and circuits. Analogous circuit technology: Passive (resistors, capacitors, coils and diodes) and active components (bipolar and field-effect transistors, operational amplifiers). Digital circuits: different types of gates and CMOS circuits. Microcontroller |                          |  |
| <b>Intended learning outcomes</b>   |                          |  |
| The students have knowledge of the practical setup of electronic circuits from the field of analogous and digital circuit technology.   |                          |  |
| <b>Courses</b> (type, number of weekly contact hours, language — if other than German)  |                          |  |
| V + Ü (no information on SWS (weekly contact hours) and course language available)  |                          |  |
| <b>Method of assessment</b> (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)  |                          |  |
| written examination (approx. 90 minutes)<br>Assessment offered: When and how often assessment will be offered depends on the method of assessment and will be announced in due form under observance of Section 32 Subsection 3 ASPO (general academic and examination regulations) 2009.             |                          |  |
| <b>Allocation of places</b>   |                          |  |
| Only as part of pool of general key skills (ASQ): 15 places. Places will be allocated by lot.   |                          |  |
| <b>Additional information</b>   |                          |  |
| Course offered every year, summer semester.   |                          |  |
| <b>Referred to in LPO I</b> (examination regulations for teaching-degree programmes)  |                          |  |
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| <b>Module appears in</b>  |                          |  |
| keinem Studiengang zugeordnet   |                          |  |