

Only the german version of the module description as part of the study regulations is legally binding.

Module name	Acoustics basics
Module number	INF-25-Ma-NGR-AKU
Responsible lecturer	Prof. Dr. Ercan Altinsoy ercan.altinsoy@tu-dresden.de
Qualification objectives	Students know the fundamentals, the basic principles and the technical language of the application area of acoustics and can plan the use of typical computer science methods, assess the corresponding challenges and implement them successfully. They are able to understand problems in the field of application and understand how to develop solutions using computer science approaches. They can work in interdisciplinary projects and teams.
Content	Contents of the module are physical acoustics, in particular sound pressure level and wave propagation, hearing and speech acoustics, in particular spatial hearing and loudness perception, electroacoustics for microphones, loudspeakers, sound reinforcement technology and virtual reality as well as Psychoacoustics.
Teaching and learning methods	The module comprises lectures of 2 SWS , exercises of 1 SWS, practicals of 1 SWS and self-study. The language of instruction for the lectures, exercises and practicals may be German or English and will be determined by the lecturer at the beginning of each semester and announced in the usual manner.
Prerequisites for participation	No knowledge is required.
Applicability	The module is a compulsory module of the non-computer science supplement Acoustics in the Diploma degree program in Computer Science in the main studium. In the Master's degree program in Computer Science, the module is a compulsory elective module of the open track supplement, which must be selected in accordance with Annex 2 to the examination regulations. The module can only be selected in the Master's degree program in Computer Science in combination with the module INF-25-Ma-NVE-AKU Acoustics - Specialization in Virtual Reality design. The module cannot be selected in the Master's degree program in Computer Science if this module or a substantially similar module from a degree program in which the admission requirements according to § 3 of the study regulations have already been met has already been completed. The module creates the prerequisites for the modules listed under prerequisites for participation.
Requirements for earning credit points	The credit points are earned if the module examination is passed. The module examination consists of a written examination lasting 90 minutes. The examination language may be German or English and will be specified by the lecturer at the beginning of each semester and announced in the

	usual manner.
Credit points and grades	6 credit points can be earned through the module . The module grade corresponds to the grade of the examination.
Module frequency	The module is offered every winter semester at .
Workload	The total workload is 180 hours.
Module duration	The module comprises one S emester.