

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

Module name	Acoustics specialization - Virtual reality
Module number	INF-25-Ma-NVE-AKU
Responsible lecturer	Prof. Dr. Ercan Altinsoy ercan.altinsoy@tu-dresden.de
Qualification objectives	Students have in-depth knowledge of the fundamentals of acoustics and can plan applications using typical computer science methods, assess the corresponding challenges and successfully implement . They are able to understand acoustic problems in virtual environments and understand how to develop solutions using computer science approaches. They are also particularly qualified to work in interdisciplinary projects and teams.
Content	The module covers techniques, methods and current technologies used in virtual realities. Further content includes audio recording and playback technologies, in particular ere binaural technology, stereophony, ambisonics, wave field synthesis and the implementation of spatial acoustic models as well as sound synthesis methods.
Teaching and learning methods	The module comprises lectures of 2 SWS, projects of 30 hours and the selfbststudy. The teaching language of the lectures and projects may be German or English and will be specified by the lecturer at the beginning of each semester and announced in the usual way _COPY .
Prerequisites for participation	In the Diploma degree program in Computer Science and in the Master's degree program in Computer Science, the competences to be acquired in the module INF-25-Ma-NGR-AKU Acoustics Fundamentals are a prerequisite.
Applicability	The module is a compulsory module of the Non-Computer Science Supplement Acoustics in the Diplom degree program in Computer Science. In the Master's degree program in Computer Science, the module is a compulsory elective module in the open track supplement, which must be selected in accordance with Annex 2 to the examination regulations rdnung. The module can only be selected in the Master's degree program in Computer Science in combination with the module INF-25-Ma-NG R-AKU Acoustics Fundamentals. The module cannot be selected in the Master's degree program in Computer Science if the seses or a module with essentially the same content from a degree program with which the admission requirements according to § 3 of the study regulations were fulfilled ü have already been completed. The module creates the prerequisites for the modules listed under prerequisites for participation nnen.
Requirements for earning credit points	The credit points are earned if the module examination is passed. The module examination consists of a complex course of 30 hours. 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 summer semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.