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

Module name	**Foundations of Virtual Reality**
Module number	INF-25-Ma-FVC-FVR
Responsible lecturer	Prof. Dr. Matthew McGinity matthew.mcginity@tu-dresden.de
Qualification objectives	Students are familiar with the basics of virtual reality and immersive media technologies. This includes knowledge of the perceptual and psychological foundations of immersive media and a basic knowledge of the technical challenges involved in developing immersive systems and experiences.
contents	Contents of the module are definitions and the history of immersive media and related concepts, basics of visual, acoustic, haptic and multisensory perception, head tracking and head-mounted displays, 3D tracking, spatial audio and haptic interfaces, embodiment, social presence, software architectures and world models for immersive simulations.
Forms of teaching and learning	The module includes lectures in the scope of 2 SWS, exercises in the scope of 2 SWS and self-study. The teaching language of the lectures and exercises is English.
Requirements for participation	The competences to be acquired in the modules INF-25-Ba-MCI Fundamentals of Human-Computer Interaction as well as INF-25-Ba-SWT Software Technology are required in the Diploma Program in Computer Science, the Bachelor Program in Computer Science and the Bachelor Program in Applied Computer Science.
usability	The module is a compulsory elective module in the field of Visual Computing and Machine Learning in the diploma course Computer Science in the main course of study, which must be chosen in accordance with Annex 2 to the examination regulations. In the Bachelor's programme in Computer Science, the module is a compulsory elective module of specialisation, which must be chosen in accordance with the annex to the examination regulations. The module in the Bachelor's programme in Applied Computer Science is a compulsory elective module in the specialisation in Media Informatics and in the specialisation in Medical Informatics, which must be chosen in accordance with the annex to the examination regulations. The module in the Master's programme Computer Science is a compulsory elective module in the Open Track in the field of Visual Computing and Machine Learning as well as the supplement, which must be selected in accordance with Annex 2 to the examination regulations. The module can only be selected once in the Master's programme Computer Science. In the Master's programme in Media Informatics, the module is a compulsory elective module in the field of specialisation modules, which must be chosen in accordance with Section 27(3) of the Examination Regulations. The module cannot be

	selected in the Master's degree program Computer Science and the Master's degree program Media Informatics if this or a substantially identical module from a degree program with which the admission requirements according to § 3 of the study regulations have been fulfilled, has already been completed. The module creates the prerequisites for the modules, which it names under prerequisites for participation.
Conditions for awarding credits	The credit points are earned when the module examination has been passed. The module examination consists of an exam work of 120 minutes duration. The language of the exam is English.
Credits and grades	6 credit points can be earned through the module. The module grade corresponds to the grade of the examination performance.
Frequency of the module	The module is offered every winter semester.
workload	The total workload is 180 hours.
Duration of the module	The module covers one semester.