

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

Module name	Spatial Computing
Module number	INF-25-Ma-FVC-SC
Responsible lecturer	Prof. Dr. Matthew McGinity matthew.mcginity@tu-dresden.de
Qualification objectives	Students are able to design and practically implement spatial computer interfaces and applications. They are familiar with algorithms, tools and platforms that are required for the creation of spatial computer interfaces and applications.
Content	Contents of the module are the design and development of spatial interactive, immersive applications, interface design, visual and acoustic design, performance analysis, localization, tracking and mapping.
Teaching and learning methods	The module comprises practicals of 4 SWS and independent study. The teaching language of the practicals can be German or English and will be specified by the lecturer at the beginning of each semester and announced in the usual manner.
Prerequisites for participation	In the Diploma degree program in Computer Science, the Bachelor's degree program in Computer Science and the Bachelor's degree program in Applied Computer Science, the competencies to be acquired in the modules INF-25-Ba-MCI Fundamentals of Human-Computer Interaction, INF-25-Ba-SWT Software Technology, INF-25-Ba-KI Artificial Intelligence and INF-25-Ba-RN Computer Networks are required.
Applicability	The module is a compulsory elective module in the subject area Visual Computing and Machine Learning in the Diplom degree program in Computer Science in the main course of study, which must be selected in accordance with Annex 2 to the examination regulations. In the Bachelor's degree course in Computer Science, the module is a compulsory elective module in the subject specialization, which must be selected in accordance with the annex to the examination regulations. The module is a compulsory elective module in the Bachelor's degree course in Computer Science with a specialization in Media Informatics at , which must be selected in accordance with the annex to the examination regulations g. In the Master's degree program in Computer Science, the module is a compulsory elective module in the open track in the subject area 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 n only be chosen once in the Master's degree program in Computer Science. The module cannot be chosen in the Master's degree program in Computer Science if this module or a module with essentially the same content from a degree program with which the admission requirements according to § 3 of the study regulations have already been fulfilled. 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 complex course of 80 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 winter semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.