

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

Module name	Advanced User Interfaces
Module number	INF-25-Ma-FHI-AUI
Responsible lecturer	Prof. Dr. Raimund Dachzelt raimund.dachselt@tu-dresden.de
Qualification objectives	Students have knowledge of basic hardware technologies, tracking methods, interaction principles, implementation options and application examples for natural user interfaces. They are able to work scientifically in a promising field of human-computer interaction. Students will be able to critically examine the latest and most influential articles in the subject areas covered. ssive articles in the subject areas covered.
Content	The content of the module is the development of so-called post-WIMP or natural user interfaces, which are based on experiences in dealing with the real world. The focus is on gestural and tangible application control, interactive interfaces and mixed reality environments. Further content includes technologies and interaction principles of various operating modalities, including multitouch, freehand gestures, pen interaction and gaze control, each with reference to international research work.
Teaching and learning methods	The module comprises lectures of 2 SWS, seminars of 2 SWS and the self bststudium. The language of instruction for the lectures and seminars is English.
Prerequisites for participation	In the Diploma degree program in Computer Science, in the Bachelor's degree program in Computer Science and in the Bachelor's degree program in Applied Computer Science, the competencies to be acquired in the module INF-25-Ba-MCI Fundamentals of Human-Computer Interaction are a prerequisite.
Applicability	The module is a compulsory elective module in the subject area Human-Computer Interaction at d Interactive Media in the Diploma 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 program in Computer Science , the module is a compulsory elective module in the subject specialization, which must be selected in accordance with the appendix to the examination regulations. The module is a compulsory elective module in the Bachelor's degree course in Applied Computer Science in the specialization in Media Informatics and in the specialization in Medical Informatics, which must be selected in accordance with the annex to the examination regulations. In the Master's degree course in Compute r Science, the module is a compulsory elective module in the open track in the subject area of Human-Computer Interaction and Interactive Media and the supplement, which must be selected in accordance with Annex 2 to the examination regulations. The module can only be chosen once in the Master's degree program in Computer Science . The module cannot be selected in the Master's degree program in Computer Science if this module or a module

	with the same content from a degree program in which the admission requirements according to § 3 of the study regulations have been fulfilled has already been completed. The module fulfills 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 and a portfolio of 60 hours. Both examinations are relevant for passing the module. The examination language of the written examination and the portfolio 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 is calculated from the weighted average of the grades of the individual examinations. The written examination is weighted threefold and the portfolio twofold.
Module frequency	The module is offered every summer semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.