

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

Module name	User Interface Engineering
Module number	INF-25-Ma-FHI-UIE
Responsible lecturer	Prof. Dr. Raimund Dachzelt raimund.dachselt@tu-dresden.de
Qualification objectives	Students know the requirements and techniques for the development of new, natural user interfaces. In particular, they master the techniques of scenario-based and user experience design. Students are able to practically apply the concepts and techniques for the development of novel user interfaces.
Content	The module covers the development of new, more natural user interfaces, such as those based on gesture or gaze control, and the associated requirements, development processes and HCI techniques, with a focus on scenario-based design and user experience design. Further content includes engineering-centered approaches and creative design phases. These phases include the creation of sketches and early prototypes.
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 2 SWS and the selfbststudium. The language of instruction for the lectures and exercises 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 appendix to the examination regulations. In the Master's degree course in Computer 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 winter semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.