

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

Module name	Microkernel Construction
Module number	INF-25-Ma-FSA-MKC
Responsible lecturer	Prof. Dr. Horst Schirmeier horst.schirmeier@tu-dresden.de
Qualification objectives	Students are able to design and implement microkernels and to assess and evaluate them with regard to functional and non-functional properties.
Content	The module covers various aspects and concepts in the design and implementation of microkernels. Further contents are a general introduction to microkernel-based operating systems, the basic design principles for microkernels, the microkernels developed at TU Dresden, several case studies of other microkernels and their different design decisions.
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 2 SWS and self-study. The language of instruction for the lectures and exercises is English.
Prerequisites for participation	In the Diploma degree program in Computer Science, the competencies to be acquired in the modules INF-25-Ba-RN Computer Networks, INF-25-Ba-BS Operating Systems, INF-25-Ba-RA Computer Architecture and Hardware Laboratory, INF-25-Ba-SWT Software Technology and INF-25-Ba-DMF Data Management Foundations are required.
Applicability	In the Diploma degree program in Computer Science, the module is a compulsory elective module in the subject area of Systems Architecture, which must be selected in accordance with Annex 2 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 Systems Architecture and the supplement, which must be selected in accordance with Annex 2 to the Examination Regulations, and in the Distributed Systems Engineering Track, which must be selected in accordance with Annex 3 to the Examination Regulations. The module can only be selected 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 essentially the same content from a degree program with which the admission requirements according to § 3 of the study regulations were fulfilled has already been completed. 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 non-public oral examination as an individual examination lasting 30 minutes. The examination language may be German or English and will be determined by the lecturer at the beginning of each semester and announced in the usual manner.
Credit points and	6 credit points can be earned through the module. The module

grades	grade corresponds to the grade of the examination.
Module frequency	The module is offered every summer semester.
Workload	The total workload is 180 hours den.
Module duration	The module comprises one semester er.