

Module Name	Microkernel Construction
Module Number	INF-IST-E-MKC
Responsible Lecturer	Prof. Dr. Horst Schirmeier horst.schirmeier@tu-dresden.de
Qualification Objectives	Students are able to design, implement, and evaluate microkernels with regard to functional and non-functional properties.
Contents	The module covers various aspects and concepts in the design and implementation of microkernels, a general introduction to microkernel-based operating systems, the fundamental design principles for microkernels, microkernels developed at Technische Universität Dresden, several case studies of other microkernels, and their differing design decisions.
Teaching and Learning Forms	2 hours per week of lectures, 2 hours per week of exercises, and self-study. The language of instruction for lectures and exercises is English.
Prerequisites for Participation	The competencies to be acquired in the modules Computer Networks, Operating Systems, Computer Architecture and Hardware Lab, Software Technology, and Data Management Foundations are required.
Usability	The module is an elective module in the elective area "Competence Deepening" according to § 6 paragraph 3 of the study regulations and § 33 paragraph 3 of the examination regulations of the main study program in the field of Systems Architecture in the diploma program Information Systems Engineering. The module creates the prerequisites for the modules that list this module under "Prerequisites for Participation."
Prerequisites for the Award of Credit Points	Credit points are awarded when 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 can be German or English and is determined by the lecturer at the beginning of the 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 performance.
Frequency of the Module	The module is offered every summer semester.
Workload	The total workload is 180 hours.
Duration of the Module	The module lasts one semester.