

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

Module name	Concurrent and Distributed Systems Lab
Module number	INF-25-Ma-FSC-FCDS.Lab
Responsible lecturer	Prof. Dr. Christof Fetzer christof.fetzer@tu-dresden.de
Qualification objectives	Students are able to develop and implement applications that can run on parallel and distributed multi-core architectures and use their computing capacities efficiently and in full. They are able to identify and eliminate sources of error with regard to concurrency and can evaluate and optimize the performance of parallel-running applications.
Content	The content of the module is practical knowledge regarding the programming of multi-core CPUs/architectures so that parallel/concurrent applications can make efficient use of the computing power of the underlying processor. This includes practical basics for the development and optimization of parallel-running, resource-efficient high-performance programs.
Teaching and learning methods	The module comprises practical courses of 4 SWS and self-study. The language of instruction for the practicals is English.
Prerequisites for participation	The competencies to be acquired in the INF-25-Ma-FSA-SE Systems Engineering module are a prerequisite for the Computer Science diploma program.
Applicability	The module is a compulsory elective module in the Diploma program in Computer Science in the main course of study in the subject area of Secure Computing, which must be selected in accordance with Annex 2 to the examination regulations. In the Master's degree program in Computer Science, the module is a compulsory elective module in the Open Track in the subject area of Secure Computing 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 in which the admission requirements according to Section 3 of the study regulations have already been met has already been completed. The module creates the prerequisites for the modules listed under prerequisites for participation here.
Requirements for earning credit points	The credit points are earned if the module examination is passed. The module examination consists of an ungraded complex course of 90 hours. The examination language is English.
Credit points and grades	6 credit points can be acquired through the module. The module examination is assessed as "passed " or "failed".

Module frequency	The module is offered every summer semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.