

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

Module name	Software technology
Module number	INF-25-Ba-SWT
Responsible lecturer	Prof. Dr. Uwe Aßmann uwe.assmann@tu-dresden.de
Qualification objectives	Students master the methods for developing software systems. They will be able to apply a systematic engineering approach using the concepts of object entation and apply object-oriented modeling and programming languages in analysis, design and implementation.
Content	The module covers object-oriented modeling languages such as the Unified Modeling Language (UML) as well as reuse aspects in an object-oriented programming language such as Java, with particular emphasis on the use of class libraries and design patterns, object-oriented analysis, design and architecture as well as basic information on project management, agile software development and software quality assurance.
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 2 SWS and the self bststudium. The language of instruction for the lectures and exercises is German.
Prerequisites for participation	The competencies to be acquired in the module INF-25-Ba-Prg Programming and RoboLab, in particular ondere the programming of class structures and procedures, are a prerequisite for the Diploma degree course in Computer Science, the Bachelor's degree course in Computer Science and the Bachelor's degree course in Applied Computer Science.
Applicability	The module is a compulsory module in the Diploma degree program in Computer Science in the foundation course. The module is a compulsory module in the Bachelor's degree course in Computer Science and in the Bachelor's degree course in Applied Computer Science. The module creates the prerequisites for the modules that name it among the 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 120 minutes. A bonus achievement for the written examination is the solving of computer based exercises of 15 hours. The examination language is German.
Credit points and grades	5 credit points can be earned through the module. The module grade corresponds to the grade of the examination.
Module frequency	The module is offered every summer semester.
Workload	The total workload is 150 hours.

Module duration	The module comprises one semester.
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