

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

Module name	Network and Distributed Systems Security
Module number	INF-25-Ma-FSC-NSec
Responsible lecturer	Prof. Dr. Florian Tschorsch florian.tschorsch@tu-dresden.de
Qualification objectives	Students are able to independently assess the security and robustness of networks and distributed systems.
Content	The module covers the basics of secure networks and distributed systems, an overview of current threats and protective measures, methods of security analysis, consideration of attacks on networks and the distributed applications within them, and current countermeasures. The attack scenarios include attacks on the content and the resulting meta- data as well as attacks on the services themselves, such as denial of service. The countermeasures include both proactive and reactive mechanisms.
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 English.
Prerequisites for participation	The competencies to be acquired in the INF-25-Ba-Si Security module are a prerequisite for the Computer Science diploma program. The Master's degree program in Computer Science requires basic knowledge and skills in IT security at Bachelor's level.
Applicability	The module is a compulsory elective module in the Diploma program in Computer Science in the main course in the subject area of Secure Computing, which must be selected in accordance with Annex 2 to the examination regulations. The module is a compulsory module in the Master's degree program in Computer Science in the Distributed Sys tems Engineering Track and in the Open Track, in each case a compulsory elective module in the subject area of Secure Computing and the supplement, which must be selected in accordance with Annex 2 to the Examination Regulations. The module cannot be selected in the Master's degree program in Computer Science n if this module or a module with essentially the same content has already been completed from a degree program in which the admission requirements according to Section 3 of the study regulations have been fulfilled. The module creates the prerequisites for the modules listed under prerequisites for participation hme.
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 an ungraded complex assignment lasting 30 hours . The examination language for the written examination and the complex assignment is English.
Credit points and	6 credit points can be earned through the module. The module grade is

grades	calculated from the unweighted average of the grades of the individual examinations, taking into account Section 15 (1) sentence 6 of the examination regulations.
Module frequency	The module is offered every summer semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.