

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

Module name	Closed-Loop Control in Networked Control Systems
Module number	INF-25-Ma-FCP-CLC
Responsible lecturer	Prof. Dr. Christoph Sommer christoph.sommer@tu-dresden.de
Qualification objectives	Students are familiar with concepts and specific designs of networked systems with control loops. They are able to design such systems and evaluate their performance and properties.
Content	The module covers concepts, specific designs and methods for evaluating networked systems with control loops.
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 may be German or English and will be specified by the lecturer at the beginning of each semester and announced in the usual manner.
Prerequisites for participation	The Diploma degree course in Computer Science requires the skills acquired in INF-25-Ba-Prg Programming and RoboLab, INF-25-Ba-RN Computer networks, INF-25-Ba-SWT Software Technology, INF-25-Ba-DMF Data Management Foundations, INF-25-Ba-SWTP Software Technology Project and INF-25-Ba-KI Artificial Intelligence. The Master degree course in Computer Science requires skills in object-oriented programming at Bachelor's level.
Applicability	The module is a compulsory elective module in the Diploma degree course in Computer Science in the main course in the subject area of Cyber Physical Systems, 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 Cyber Physical Systems and the supplementing, which must be selected in accordance with Annex 2 to the examination regulations. The module can only be chosen 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 substantially identical 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 fulfills 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 a single examination lasting 20 minutes. The examination language may be German or English and will be specified by the lecturer at the beginning of each 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.

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