

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

Module name	Computational Laser Metrology specialization
Module number	INF-25-Ma-NVE-CLM
Responsible lecturer	Prof. Dr. Jürgen Czarske juergen.czarske@tu-dresden.de
Qualification objectives	Students are able to describe and evaluate the physical and system-theoretical principles and the technical design of computer-aided laser sensors. They master approaches and methods of system design and the application of modern laser sensors.
Content	Contents of the module are the physical and system-theoretical basics of computer-aided laser measurement technology as well as the experimental investigation and application of laser sensors.
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 1 SWS, practicals of 1 SWS and self-study . The language of instruction for the lectures, exercises and practicals 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	In the Diploma program in Computer Science and in the Master's program in Computer Science, the competences to be acquired in the module INF-25-Ma-NGR-CLM Computational Laser Metrology Fundamentals are a prerequisite.
Applicability	The module is a compulsory module of the non-computer science supplement Computational Laser Metrology in the Diplom degree program in Computer Science. In the Master's degree program in Computer Science, the module is a compulsory elective module in the open track supplement, which must be selected in accordance with of Annex 2 to the examination regulations. In the Master's degree program in Computer Science, the module can only be selected in combination with the module INF-25-Ma-NGR-CLM Computational Laser Metrology Fundamentals. The module cannot be selected in the Master's degree course in Computer Science if this module or a module with essentially the same content from a degree course 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 that specify 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 lasting 15 minutes and a portfolio lasting 20 hours. Both examinations are relevant for passing the module. The examination language of the oral examination and the portfolio may be German or English and will be specified by the lecturer at the beginning of each semester and announced in the usual manner at ester.

Credit points and grades	6 credit points can be earned through the module. The module grade is calculated from the weighted average of the grades of the individual examination performances. The oral examination is weighted fourfold and the portfolio is weighted once.
Module frequency	The module is offered every summer semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.