

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

Module name	Photogrammetry specialization
Module number	INF-25-Ma-NVE-PGB
Responsible lecturer	Prof. Dr. Hans-Gerd Maas hans-gerd.maas@tu-dresden.de
Qualification objectives	Students are able to plan the use of typical computer science methods, assess the corresponding challenges and implement them successfully. They are able to understand problems in the field of application and understand how to develop solutions using computer science approaches. They are qualified to work in interdisciplinary projects and teams. Students have in-depth knowledge of laser scanner systems and skills in the acquisition, visualization, handling and automatic processing of 3D point clouds.
Content	Contents of the module are laser scanning and point cloud processing, the technological basics of aircraft laser scanning and terrestrial laser scanning, in particular methods of registration and calibration, filter methods, methods for the automatic extraction of geoinformation from 3D point clouds as well as applications for DTM generation, 3D city models, forestry, architecture and engineering.
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 2 SWS and the self-study. The language of instruction for the lectures and exercises is German.
Prerequisites for participation	The competencies to be acquired in the module INF-25-Ma-NGR-PGB Photogrammetry Fundamentals are a prerequisite for the Diploma degree program in Computer Science and the Master's degree program in Computer Science.
Applicability	The module is a compulsory module of the Non-Computer Science Supplement Photogrammetry in the Diploma 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 Annex 2 to the examination regulations. The module can only be selected in the Master's degree program in Computer Science in combination with the module INF-25-Ma-NGR-PGB Photogrammetry Basics. 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 with which the admission requirements according to § 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 written examination lasting 90 minutes. The examination language is German.

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.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.