

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

Module name	Photogrammetry basics
Module number	INF-25-Ma-NGR-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.
Content	The module covers the geometric principles of photogrammetry, imaging sensor technology, image processing and image analysis, evaluation methods and systems, project planning and implementation, georeferencing, mapping, DTM generation, orthophotos, aerotriangulation, close-range photogrammetry, generation of VR models and the automation of standard photogrammetric processes using image analysis methods.
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	No knowledge is required.
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-NVE-PGB Photogrammetry specialization. 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 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 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 winter semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.