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

Module name	**Photogrammetry deepening**
Module number	INF-25-Ma-NVE-PGB
Responsible lecturer	Prof. Dr. Anette Eltner anette.eltner@tu-dresden.de
Qualification objectives	Students are able to plan the use of typical computer science methods, assess the corresponding challenges and successfully implement them. They are able to comprehend problems of the field of application and understand how to develop solutions with the inclusion of approaches of computer science. They are qualified to work in interdisciplinary projects and teams. Students have in-depth knowledge of laser scanner systems as well as competencies in the acquisition, visualization, handling and automatic processing of 3D point clouds.
contents	Contents of the module are laser scanning and point cloud processing, the technological foundations of aircraft laser scanning and terrestrial laser scanning, in particular procedures of registration and calibration, filtering procedures, procedures for the automatic extraction of geoinformation from 3D point clouds as well as applications for DTM generation, 3D city models, forestry sciences, architecture and engineering.
Forms of teaching and learning	The module includes lectures in the amount of 2 SWS, exercises in the amount of 2 SWS and self-study. The language of instruction of the lectures and exercises is German.
Prerequisites for participation	In the diploma program Computer Science and in the master program Computer Science, the basics to be acquired in the module INF-25-Ma-NGR-PGB Photogrammetry are required.
usability	The module is a compulsory module of the non-informatic supplement photogrammetry in the computer science diploma program in the main course. In the Computer Science Master's programme, the module is a compulsory elective module of the supplement in the Open Track, which must be selected in accordance with Annex 2 to the examination regulations. The module can only be chosen in the Master's program Computer Science in combination with the module INF-25-Ma-NGR-PGB Photogrammetry Basics. The module cannot be chosen in the Master's program Computer Science if this or a substantially identical module has already been completed from a course with which the admission requirements according to § 3 of the study regulations have been met. The module creates the prerequisites for the modules that it designates under prerequisites for participation.
Requirements for the award of credit points	Credits are earned when the module exam is passed. The module examination consists of a exam work of 90 minutes duration. The examination language is German.

Credits and grades	6 credit points can be earned through the module. The module grade corresponds to the grade of the examination performance.
Frequency of the module	The module is offered every summer semester.
workload	The total workload is 180 hours.
Duration of the module	The module covers one semester.