Module name	**Centre methods of photogrammetric GeoData acquisition**
Module number	CMS-TRK-ES5
Senior Lecturer	Prof. Dr. Anette Eltner anette.eltner@tu-dresden.de
Qualification objectives	Students are aware of current developments in photogrammetric sensing and algorithms to automate photogrammetric evaluation processes and can use them in a targeted manner in geospatial data acquisition tasks.
Contents	The content of the module includes technologies of up-to-date photogrammetric aerial cameras, direct geo-referencing and mobile mapping systems, as well as methods of automatic aerotriangulation, robust estimation methods and image analysis methods to extract 3D-GIS information from image data.
Forms of teaching and learning	The module includes lectures of 2 SWS, exercises of 1 SWS and self-study. The teaching language of lectures and exercises may be German or English and will be specifically determined by the teacher at the beginning of each semester and announced in the usual manner.
Eligibility for participation	Knowledge of photogrammetry, such as imaging sensors, optics, image processing, geometric bases, geo-referencing, stereo-interpretation, digital terrain models, orthophoto-generation, aerotriangulation, image assignment procedures at bachelor level is required. The following literature is suitable for preparation: Kraus, K. (2004): Photogrammetry. De Gruyter Berlin.
Usability	In the Masters Course Computational Modeling and Simulation, the module is an optional module in the Track Computational Environmental Science and Engineering, to be selected in accordance with Annex 2 to the Specific Examination Regulations. The module cannot be chosen in the Master's Course Computational Modeling and Simulation if this or a module with substantially the same content from a Course with which the entry conditions under § 3 of the Studienordnung have been met has already been completed. The module provides the pre-requisites for the modules it designates under the pre-requisites for participation.
Conditions for the award of credits	Credits are awarded when the module test is passed. The module test consists of a portfolio of 15 hours. The language of the exam will be German or English, at the student's choice.
Credits and marks	The module allows 5 credit points to be obtained. The module score corresponds to the test performance score.
Frequency of the module	The module is offered every winter semester.

Workload	The total workload is 150 hours.
Duration of the module	The module covers 1 semester.