

# Photogrammetry and Geoinformatics



## Hochschule für Technik Stuttgart

### Location

In the heart of Europe, surrounded by beautiful countryside lies the vibrant and fascinating city Stuttgart, the state capital of Baden-Württemberg. Stuttgart is the economic, cultural and social centre of a region with more than 2.7 million inhabitants. Not far away and worth a visit are the Black Forest, Swabian Alb and Lake Constance.

The University of Applied Sciences (UAS) locates in the city centre of Stuttgart. The UAS looks back at a long history with a rich tradition in engineering education since 1832.

### Course focus

The M.Sc. course Photogrammetry and Geoinformatics aims at educating future decision makers and senior engineers of information and land management projects, national authorities for mapping, photogrammetry, land consolidation, cadastre, forestry, agriculture, rural and urban planning or environment monitoring.

The postgraduate course offers scientific and practice-oriented education and training in the fields of photogrammetry, remote sensing and geoinformatics. An important objective is the transfer of cutting-edge techniques to practice, under various technological conditions.

Focussing on aerial imagery processing, you will train photogrammetric technology on modern digital workstations: from scanning, automated aero-triangulation and acquisition of digital elevation models, to orthoimage generation and topographic and thematic mapping. Gaining experience in dealing with alternative data sources, such as high-resolution remote sensing satellites as well as radar and airborne laser scanning, completes the modern photogrammetric education.

The key topics in the field of geoinformatics are acquisition, storage, analysis, retrieval and display of spatial related data, concerning both, Earth's physical features and the man-made environment. Studying the methods for data modelling in geoinformation systems (GIS), design and handling of various databases, GIS data formats, GIS customisation including programming, all accompanied by intensive training are important parts of the postgraduate course. Most recent developments like world wide web technologies, 3D-visualisation and integration of GIS and photogrammetry prepare course participants for the future.

A full-time research project aiming at the elaboration of a master's thesis within six months concludes the programme.

### Target group

The course is designed for all kinds of professional producers or users of geodata (e.g. in photogrammetry, geodesy, civil engineering, land surveying, agriculture, cartography, forestry, geography, geology),

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<b>Target group</b>	in particular from developing countries, who are involved as decision makers or project engineers in the acquisition, administration and use of geodata in the context of geoinformation systems, photogrammetry and remote sensing.
<b>Course language</b>	English
<b>Entry requirements</b>	<ul style="list-style-type: none"><li>• Bachelor degree in Geodesy, Geography, Civil Engineering, Agriculture, Forestry or corresponding degrees of other professions applying geodata or spatial related technologies.</li><li>• Two years of competent professional experience.</li><li>• English language skills – verification of proficiency:<ul style="list-style-type: none"><li>• TOEFL-Test: computer based minimum 213 points, paper based minimum 550 points, internet-based minimum 79 points, or</li><li>• IELTS-Test: Band 6,0 or higher.</li></ul></li></ul>
<b>Degree awarded</b>	Master of Science (M.Sc.) in Photogrammetry and Geoinformatics
<b>Course begins</b>	Every year in October
<b>Course duration</b>	18 months (two semesters and six months supervised study with master's thesis)
<b>Duration of German language course prior to beginning of programme</b>	2 months (for students awarded a DAAD scholarship only)
<b>Application deadline</b>	15 October
<b>Remarks</b>	<ul style="list-style-type: none"><li>• Applications must be submitted in English.</li><li>• A good mathematical background and good computer skills are required.</li><li>• In addition to the official DAAD application form, candidates are required to submit a particular application form for the master's program, which is available at <a href="http://www.hft-stuttgart.de">www.hft-stuttgart.de</a></li><li>• The study course is accredited by ASIIN, the Accreditation Agency for Study Courses in Engineering, Informatics, Natural Science and Mathematics.</li></ul>
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