

Cartography (M.Sc.) Erasmus Mundus Master of Science

www.cartographymaster.eu

Cooperation of Technische Universität München, Technische Universität Dresden, Technische Universität Wien, Universiteit Twente

Background and Objective

The international Master of Science in Cartography was established in 2011 and is a joint programme of:

- Technical University of Munich (TUM), Germany - *Chair of Cartography*
- Vienna University of Technology (TUW), Austria - *Research Group Cartography*
- Technische Universität Dresden (TUD), Germany - *Institute for Cartography*
- University of Twente (UT), The Netherlands - *Department of Geo-Information Processing*

Through the cooperation of four leading universities in the field of cartography the combined comprehensive expertise enables a unique curriculum and provides an exceptional programme with excellent job employment prospects. The programme focuses on a broad education in cartography and geoinformatics, e.g., on spatial information technologies, mathematic principles of map making, spatial data handling, theories and technologies of geovisualization, visual analytics and communication of spatial information.

After four successful years, the [Cartography M.Sc.](http://www.cartographymaster.eu) has been selected for Erasmus+ by the Education, Audiovisual and Culture Executive Agency (EACEA) of the European Union. One section of the Erasmus+ programme is the "Erasmus Mundus Joint Master Degree", which supports excellent international Master courses in Europe. The "Erasmus Mundus Joint Master Degree" aims to foster quality enhancements, innovation, excellence and internationalization in higher education institutions.

Admission Requirements

Applications are open to all candidates with an above-average Bachelor degree or its equivalent in science or engineering, e.g., cartography, geography, geodesy or computer science. The application deadline for the following winter term is:

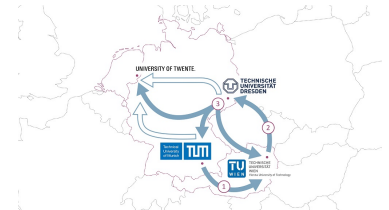
- 15th of March for students applying for an Erasmus Mundus scholarship
- 31st of May for self-funding students

Non-native speakers of English will be required to submit a TOEFL (iBT min. 88; CbT min. 234; PbT min. 605), an IELTS (min. 6.5) or a certificate of Cambridge Main Suite (CAE or CPE, Level A, B or C).

Programme Structure

The programme takes place at all four cooperating universities and is completely taught in English. Students stay together as a group during the whole time and have to spend their 1st semester at TUM in Germany. Then they have to study the 2nd semester at TUW in Austria. After that they study their 3rd semester at TUD in Germany. During the first and third semester, online modules from the University of Twente are integrated in the curriculum. In the 4th semester students prepare their Master's thesis at one of the four participating universities.

The full-time Master programme awards a total of 120 ECTS and is to be completed in two years.



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Students obtain 30 ECTS in each semester/at each university, respectively 30 ECTS for their Master's thesis.

The qualification finally awarded to the students is the joint degree "Master of Science (M.Sc.) in Cartography".

Programme Contents

- 1st Semester
 - Compulsory modules: Cartographic Foundations | Geo-Information | Geovisualization and Geostatistics | Introduction to Photogrammetry, Remote Sensing and Image Processing
 - Elective modules: Principles of Databases | Spatial Decision Support Systems | Scientific Visualization | Mapping Project | Engineering Databases | Observing and Modelling Global Dynamic Processes | Atmospheric Physics and Remote Sensing | English - Scientific Presentation and Writing C2
- 2nd Semester
 - Theoretical Cartography ? Location Based Services (LBS) and Multimedia Cartography ? Cartographic Publishing ? Applied Cartographic Research and Development
- 3rd Semester
 - Compulsory module: Georelief and Cartography
 - Elective modules: Principles of Databases | Spatial Decision Support Systems | Mobile Cartography | GIS Applications and Case Studies | Remote-Sensing-based Environmental Mapping | History of Cartography | Geodata Infrastructures | Laser Scanning and DTM Generation | Virtual 3D Landscape Models
- 4th Semester
 - Master's Thesis (at one of the four cooperating universities)

Career Perspectives

The qualification M.Sc. in Cartography opens up professional prospects at a national or international level in the public or private sector as well as in the scientific field. Degree holders can work for example in governmental agencies, for map and atlas publishers or for companies dealing with GIS or navigation systems. Furthermore, the M.Sc. degree qualifies for PhD programmes. The cooperation of the four universities intends to give graduates an access to an international research network and an optimal start to a scientific career.

Contact

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For further information, visit the Master's [website >](#)

Download-Liste:

- Module Handbook (PDF) >
- Programme Structure (PDF) >