

# Programme Structure Cartography M.Sc.

Compulsory | Elective modules TUM
  Compulsory | Elective modules TUD
  Compulsory | Elective modules TUD
  Elective online modules UT

Compulsory modules TUW

		1st Semester 30 ECTS	2nd Semester 30 ECTS	3rd Semester 30 ECTS	4th Semester 30 ECTS
Fundamental		<b>Cartographic Foundations</b> Compulsory 5 ECTS	<b>Cartographic Theories and Applications</b> Compulsory 9 ECTS		
		<b>Geo-Information</b> Compulsory 6 ECTS			
		<b>Geovisualization and Geostatistics</b> Compulsory 5 ECTS			
		<b>Photogrammetry, Remote Sensing Image Processing</b> Compulsory 6 ECTS			
Advanced		<b>Spatial Decision Support Systems</b> Elective 5 ECTS	<b>LBS and Multimedia Cartography</b> Compulsory 10 ECTS	<b>Georelief and Cartography</b> Compulsory 9 ECTS	
		<b>Principles of Databases</b> Elective 5 ECTS	<b>Cartographic Publishing</b> Compulsory 5 ECTS	<b>Principles of Databases</b> Elective 5 ECTS	
		<b>English - Scientific Presentation and Writing</b> Elective 3 ECTS		<b>Spatial Decision Support Systems</b> Elective 5 ECTS	
				<b>Mobile Cartography</b> Elective 9 ECTS	
				<b>Subject-specific GIS Applications and Case Studies</b> Elective 9 ECTS	
Interdisciplinary		<b>Scientific Visualization</b> Elective 5 ECTS	<b>Applied Cartographic Research and Development</b> Compulsory 6 ECTS	<b>True-3D Cartography and Visualization of Dynamic Features</b> Elective 4 ECTS	
		<b>Mapping Project</b> Elective 5 ECTS		<b>Virtual 3D Landscape Models</b> Elective 5 ECTS	
Specialization		<b>Engineering Databases</b> Elective 3 ECTS		<b>Remote-Sensing based Environmental Mapping</b> Elective 4 ECTS	<b>Master's Thesis and Colloquium</b> Compulsory 30 ECTS
		<b>Observing and Modeling Global Dynamic Processes</b> Elective 3 ECTS		<b>Laser Scanning and DTM Generation</b> Elective 4 ECTS	
		<b>Atmospheric Physics and Remote Sensing</b> Elective 3 ECTS		<b>Geodata Infrastructures</b> Elective 5 ECTS	
				<b>History of Cartography</b> Elective 4 ECTS	