

Educational Programme	Geomatics
Degree Awarded	Master in Geomatics
Standard Length of Studies (Number of ECTS Credits)	2 years – 4 semesters – 120 ECTS
Type of Study	Full-time
Higher Education Institution	Babeş-Bolyai University
Faculty / Department	Faculty of Geography
Responsible	Prof. Univ. Dr. Haidu Ionel
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Profile of the Degree Programme	Geomatics degree program
Target Group / Addressees	Graduates in Geography, Surveying and Mapping Science, Civil & Environmental Engineering, Land Use Planning.
Entrance Conditions	Admission based on grades from the University studies.
Further Education Possibilities	The master programme aims at providing students with the appropriate tools for further doctoral studies or to help them become professional experts in the field.
Description of Study	<p>At the heart of the Geomatics study is the regular programme, including all subjects that are deemed essential for the Geomatics body of knowledge. The regular programme is divided into a <i>common core</i> and an <i>individual programme</i>.</p> <p>The <i>common core</i> (courses common and compulsory for all students) provides a strong basis for all students, by covering topics such as Digital Topography and Geographic Information Systems (GIS), Spatial Analysis assisted by GIS, Advanced Techniques in ArcGIS, Remote Sensing and GIS, GIS Applications in Local Administration, GPS Application in Cadaster assisted by GIS, Statistic Methods in GIS and in Remote Sensing, Planning and Landscape Strategies, Satellite Image processing.</p> <p>In the <i>individual programme</i> (differentiating between individual student's interests) students can choose courses from a list of <i>optional courses</i>. These include for example the Management of Spatial Databases, Digital Photogrammetry, Digital Cartography and WEB GIS, GIS Project Management, GIS Application in Management, GIS Modelling of Natural Phenomena, GIS Modelling of Social-Economic Phenomena, GIS Applications in Urban Planning.</p>
Purposes of the Programme	The Master of Geomatics is designed to meet the needs of graduates in a variety of disciplines associated with land administration, natural resource management, facility information management, environmental management, urban planning and conservation and who wish to gain a detailed knowledge of the theory, technology and applications of geomatics as a subset of the broader discipline of Spatial Data Management.

Specialization / Area of Expertise	The curriculum of this program provides training in an area of great interest, both theoretical and especially practical, namely, the field of geomatics.
Extra Peculiarities	-
Practical Training	Throughout the course students are required to undertake one semester of research work at Babeş-Bolyai University or abroad.
Final Examinations	Research master thesis
Gained Abilities and Skills	<ul style="list-style-type: none"> - Skills needed for the IT applications (GIS) analysis, classification and spatial modeling of environmental components; - Deep knowledge of software and electronic equipments used in geomatics; - Familiarity with some aspects of modern methods used in geomatics; - Specific concepts ensuring good collaboration between environmental engineers and geographers; - Skills of theoretical modeling and complex of a geographic information system.
Job Placement, Potential Field of Professional Activity	<p>The course is designed to provide basic skills required for a career in geomatics to students.</p> <p>Typical job titles in geomatics include: geographer, cartographer, physical scientist, computer scientist, surveyor, GIS analyst, remote sensing scientist, civil engineering technician, surveying and mapping technician, photogrammetrist and image analyst.</p> <p>Most jobs have a high level of technology and computer use and are indoors. Other jobs require a great deal of fieldwork and being outdoors. Geomatics can be associated with work in other fields including archeology, medicine, forestry, geology, geography and astronomy to name only a few.</p>

Date: 29 October 2010

Signature: