The International Masters Program (Master of Science, M.Sc.) in Geospatial Technologies is a cooperation of

- University of Münster (WWU), Institute for Geoinformatics (ifgi), Germany,
- Universitat Jaume I (UJI), Castellón, Institute of New Imaging Technologies (INIT), -Spain
- Universidade Nova de Lisboa (UNL), NOVA Information Management School, Portugal.

The Masters Program has been selected within the Erasmus Mundus Program of Excellence of the European Commission (2021-2027).

Study program overview

Semester 1 - Option A	Semester 1 - Option B	Semester 2	Semester 3
UNL Foundations of GI Science Advanced Topics in GI Science Analytical Tools	UJI Foundations of Informatics Advanced Informatics and Data Analytics GI basics	WWU Foundations of GI Science II Advanced Topics in GI Science II Applied Topics in GI Science Transferable Skills	UJI, UNL, WWU Master thesis

Master of Science in Geospatial Technologies

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Study program

The English-language three-semester Masters program will enroll up to 32 students per year.

- The first semester offers different learning paths, addressing the previous know-how and requirements of the students.
  The courses at UJI focus on the provision of know-how in informatics, new media, and GI basics. UNL provides modules in Geographic Information (GI) Science, data modeling, and analytical tools.
- The second semester at the WWU provides basic and advanced courses in GIScience. In addition, courses in additional transferable skills (project management, research methods) are provided.
- The Master thesis in the third semester is closely linked to ongoing research projects of one of the partners.

Based on the successful Master examination, the three universities will award the joint degree “Master of Science” (M.Sc.) with the adjunct “in Geospatial Technologies”.

Targeted audience

The Masters program targets holders of a Bachelors degree with a qualification in application areas of Geographic Information (GI), e.g., environmental planning, regional planning, logistics/traffic, marketing, energy provision. GI is a rapidly growing market, lacking qualified GI personnel and offering excellent career chances. Therefore, the Masters Program targets life-long learning for graduates and professionals in the fields of geography, surveying, planning, local administration, etc., who are willing to acquire additional GI skills for applying them in their respective GI application area. Candidates who have already studied GI degrees will be given lower priority in admissions evaluation.

Admission Criteria

The Master’s Program in Geospatial Technologies is directed towards students with relevant degrees in the area of Geographic Information applications.
Some of the major requirements for admission are:

- Adequate Bachelor degree (or Master degree)
- English language proof (TOEFL 500 points)
- High motivation
- High-level achievements in previous academic and professional careers.

Application

The deadline for students applying for the Masters Program is May 31st of each year. This deadline only applies to self paying students.
Tuition fees to the consortium are 1.700 € per semester.

Erasmus Mundus scholarships:
For the intakes 2023, 2024, and 2025, we will be able to provide full scholarships funded by the EU program Erasmus Mundus.
Application deadlines: **January 15;** conditions, please see our website.

Further information
http://mastergeotech.info/

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Geographic Information and career opportunities

GI is a rapidly growing economical sector: 80 % of all decisions in Economy and Politics have a spatial relation. On a global scale, many of the most pressing “wicked problems” or global challenges are intrinsically linked to geospatial aspects. The Sustainable Development Goals identified by UN, e.g., “sustainable cities and communities”, “climate change” and “protect the environment”, whereas spatio-temporal dimensions are crucial for achieving these goals, e.g., in urban planning, climate models, environmental monitoring.

However, there is a lack of qualified GI professionals in these areas. Career opportunities in the Geospatial Technologies sector can be considered as globally excellent. There are a few studies with projections on market and employment growth, all of them very positive. According to a report by Federal Geographic Data Committee, the geospatial technology and services industry is growing in the world economies, driving significant benefits and providing high-wage jobs. The Geospatial Information and Technology Association (GITA) recently reported that the geospatial information technology sector has recently been growing by 35% per year, with the commercial side growing at a rate of 100% annually.

A joint degree programme spanning three globally important languages in its host countries (German, Spanish, and Portuguese) and taught in the lingua franca of technology (English) provides an immense advantage to the students entering a globalized job market.

Learning outcomes and professional qualification

Geospatial Technologies is an innovative professional area that interdisciplinary bridges the gap between informatics and geosciences. Graduates of the International Masters Program apply and develop methods for computer-supported solutions for spatially related problems (global, regional, local). Therefore, graduates receive the following specialized knowledge in:

- Geospatial Technologies and Geographic Information;
- Informatics and Data Analysis.

The Master of Science in Geospatial Technologies qualifies for a professional career in the following domains:

- **Private sector:** GI applications and consulting in the domains of regional planning, landscape planning, financial services industry, energy providing industry, transportation, agriculture and forestry, and retailing/marketing;
- **Research:** Applied sciences at universities and other research institutions;
- **Public sector:** GI applications and consulting in local and regional administrations, especially in cadastre and different types of planning (e.g., regional, traffic, ecology).

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Departments Involved

“Geospatial Information Technologies” have their roots primarily in three distinct areas: geosciences, computational technologies, and information science. The three Universities represent centers of excellence in these areas, recognized at the European and global levels. The geoscientific foundations of Geoinformatics at Münster, the computer science and technology skills taught at Castellón, and the mathematical, statistical and geospatial modeling methodologies emphasized in Lisbon complement each other in an ideal way to provide a rounded, but compact education in this interdisciplinary technological field.

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