

NOVA

IMS

Information
Management
School

Master of
Science

Geospatial Technologies

International
Erasmus Mundus

In partnership with:



www.novaims.unl.pt

Instituto Superior de Estatística e Gestão de Informação
Universidade Nova de Lisboa

Master of Science in Geospatial Technologies



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

- Universidade Nova de Lisboa (NOVA), NOVA Information Management School (NOVA IMS), Lisboa, Portugal;
- University of Münster (WWU), Institute for Geoinformatics (IFGI), Germany;
- Universitat Jaume I (UJI), Castellon, Spain.

This Master Degree Program has been selected by the Erasmus Mundus Program of the European Commission as one of the most excellent Masters Programs in Europe.

Description

The English-language three-semester Master program enrolls 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 NOVA provide modules in data modelling and GI basics. UJI focus on the provision of know-how in informatics, new media and GI basics.

The **second semester** at WWU provides basic and advanced modules in Geoinformatics. In addition, courses in key skills (project management, research methods) are provided.

Summer or spring school participation may be substituted for some courses.

The Master thesis in the **third semester** is closely linked to ongoing research projects of one of the partner institutions.

Based on the successful Master examination, the 3 universities award the joint degree "Master of Science (M.Sc.) in Geospatial Technologies".

Target Audience

The Masters program aims at holders of a Bachelors degree qualified in application areas of Geographic Information (GI), e.g., environmental planning, regional planning, geography, logistics, transportation, defense, marketing, energy provision, computer science.

GI is a rapidly growing market, lacking qualified GI staff and offering excellent career prospects.

Therefore, the Masters Program targets life-long learning for graduates and professionals in fields like geography, surveying, planning, central and local administration, who are willing to acquire additional GI skills for applying them in their respective GI application area.

Admission Criteria

The major requirements for admission are:

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

Study Plan for the path starting in NOVA IMS

1st Semester

NOVA IMS	ECTS
Geographic Information Science	7,5
Geospatial Data Mining	7,5
Group Project Seminar on Programming and Analysis	5
Portuguese	4
Remote Sensing	7,5
Spatial Data Analysis and Visualization	7,5
Spatial Statistics	7,5

3rd Semester

NOVA IMS, WWU or UJI	ECTS
Master Thesis	28
Thesis follow up	2

2nd Semester

University of Münster (WWU)	ECTS
Advanced Digital Cartography	5
Applied Geospatial Technologies	5
Core Topics in GI Science	2
From Data to Knowledge	5
Geoinformatics Forum	1
Geoinformatics Forum Discussion Group	1
Location-Based Services	5
Programming in GI	5
Project Management / Geomundus Conference	3
Reference Systems for GI	5
Research Methods in GI Science	3
Spatial Cognition	5
Study Project	1

■ Mandatory Course Unit

■ Elective Course Unit

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 geo-scientific foundations of Geoinformatics at Münster, the computer science and technology skills taught at Castellon, 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.

Learning Outcomes and Professional Qualification

Geospatial Technologies is an innovative professional area that bridges the gap between informatics and geosciences.

Graduates of the International Masters Program apply and develop methods for computer-supported solutions for problems with a spatial component (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).

Directed to

Students holding a university degree with qualifications in areas related to Geographic Information applications such as environmental science, geography, topography, land planning, logistics and other professionals interested in the application of Geospatial Technologies.

Testimonials

Yasmine Megahed

Egypt

People here are so friendly, they are very helpful. Even those who don't speak English very well, they always try to help. Teachers are so helpful, they are available all the time, always open to answer your questions through email or face-to-face. It's my first time in Europe, it's been a very good experience!

Tom Buckley

USA

The teachers here have been supportive, kind, accessible. On top of that, they are generally very practical. They have projects outside of their academic work, which brings a practicality to their academic work and the kind of teaching they do in the classroom. There's a focus in higher education on schools in the USA being the best places to study but I think that if a student is curious and independent, they can find the support and the help that they need at NOVA IMS.



Duration

3 academic semesters: from September 2022 to March 2024.

Number of Credits

90 ECTS (European Credit Transfer System).

Numerus Clausus

The *numerus clausus* in NOVA IMS is 16 students.

Collaborating Entities

European Commission: Erasmus Mundus Programme.

Coordinating University

Westfälische Wilhelms - University of Münster (Germany).

Local Contacts

Coordinator of the Program

PhD Marco Painho

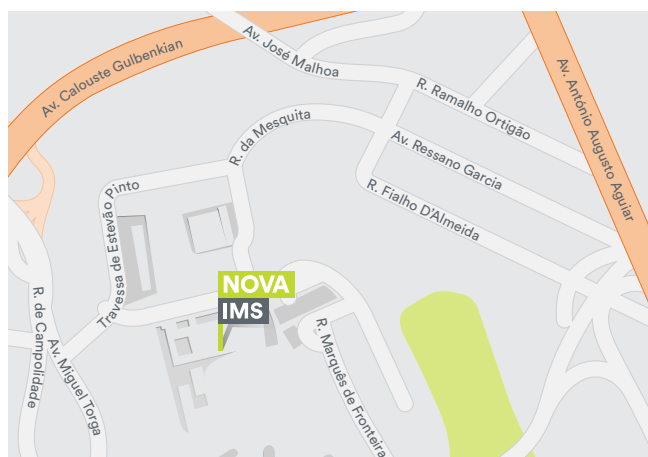
painho@novaims.unl.pt

Admissions Office Coordinator

Beatriz Branco

abranco@novaims.unl.pt

+351 213 828 610 (Call to the national fixed network)



How to get to NOVA IMS

Carris

701, 713, 716, 726, 742, 746, 756, 758, 770

Metro

São Sebastião (Blue and Red Lines)

Praça de Espanha (Blue Line)

GPS Coordinates

38.732462 | -9.159921

Campus de Campolide, 1070-312 Lisboa

Tel: +351 213 828 610 (Call to the national fixed network)

Fax: +351 213 828 611

NOVA IMS' Accreditations and Certifications



Cofinanced

