



# MSc Geospatial Data Analysis

Geographic Information Systems and Remote Sensing for Social and Environmental Sciences  
(1 Year Full-time or 2 Years Part-time)

## Introduction

Geographic Information Systems (GIS) and Remote Sensing are considered essential tools to spatially explore, analyse, visualise and disseminate data; and these skills are increasingly highly sought after in the workplace.

The MSc in Geospatial Data Analysis will provide you with strong theoretical, conceptual and practical foundation on spatial data analytics, covering legislative requirements and ethical considerations.

The aim of the programme is to provide you with the skillset for real-world spatial

exploration of social, economic and environmental patterns and interactions in support of evidence-based planning and decision-making. It will afford you the opportunity to apply acquired skills in pragmatic contextual settings.

This course is also offered as a Graduate Diploma. Students on this pathway will complete 60 credits of taught modules but not the dissertation. While applicants can apply to the Graduate Diploma directly, students on the MSc can also transfer to this pathway during the year.

## Course Highlight

### Practical skills for the workplace

At the end of the programme you will have practical and applied GIS/Remote Sensing skills for problem-solving; and knowledge and understanding of tools, methods and applications within geographic research and practice, across a range of disciplines and work areas. The programme includes guest speakers from research and industry, exposing you to potential internship and career opportunities in the area.

## Programme Content and Structure

**90 Credits**  
Taught Masters

**60 Credits**  
Taught Modules

**30 credits**  
Dissertation

The core modules will place large emphasis on practical hands-on skill building on GIS/Remote Sensing, applied to real world case-study analysis.

A range of optional modules will provide the flexibility to shape the learning to your own research or career needs. All optional modules will have an applied geospatial analysis component.

There is also an option to do a Postgraduate Diploma in Geospatial Data Analysis (by not undertaking the dissertation component of the programme).

### Core modules:

- Introduction to ArcGIS
- Advanced GIS
- Remote Sensing
- Research Design I & II
- Dissertation

### Optional modules:

- Practical Environmental Assessment
- Reimagining Dublin
- Physical Geography of Cities
- Critical Geopolitics of Europe
- GIS and Cultural Heritage
- Social Simulation, Methods and Models
- Critical Geography
- Coastal Risks
- INFOMAR Marine Geodata Science
- Geostatistics and Programming for GIS
- INFOMAR Marine and Survey Data

## Why study at UCD?



### Graduate Education

12,000 graduate students; 17% graduate research students; structured PhDs



### Global Careers

Dedicated careers support; 2 year stayback visa to work in Ireland



### Global Profile

UCD is ranked in the top 1% of higher education institutions worldwide



### Graduate Employability

Ranked no. 1 in Ireland in QS Graduate Employability ranking



### Global Community

8,500 international students and 300,000 alumni network across 165 countries



### Welcoming Campus

Modern parkland campus with 24 hr security. Wide range of facilities, clubs, societies and supports



## Career Opportunities

This program will provide you with practical and applied GIS/Remote Sensing abilities as well as a range of academic and transferable skills that will be a benefit in many careers.

Graduates of this programme may progress to doctoral study or to careers in:

- Environmental and planning consultancies
- Governmental departments and local authorities (e.g. Dublin City Council)
- State and semi-state agencies (e.g. Central Statistics Office, Environmental Protection Agency, Marine Institute, Ordnance Survey Ireland)
- Industry (e.g. ESRI, Google)
- Think tanks, research bodies and consultancies (e.g. KPMG)

## Graduate Profile



**Connor Podkul**

Project Developer at Apex Clean Energy, Charlottesville, Virginia, United States

“The MSc Geospatial Data Analysis programme provided an opportunity to develop the GIS skill sets and tools in one of the best geography schools in the world. GIS skills are in high demand, and opportunities are continuing to grow.

The programme is well-connected to the real-world use and application of GIS. It has been a tremendous experience. The content begins at a fundamental level that gives you confidence in your ability to use and apply spatial analysis skills.

The academic staff creates a supportive atmosphere full of opportunities to ask questions and collaborate with peers while immersed in a comfortable learning environment.”

## Applicant Profile

- Applicants should have a minimum of an upper second class honours (2:1) degree or international equivalent at bachelors level.
- Relevant professional or voluntary experience may be considered as part of the application process.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.
- Applicants should have basic computer skills.

## Fees and Scholarships

Tuition fee information is available on [www.ucd.ie/fees](http://www.ucd.ie/fees). Please note that the costs of travel and subsistence for some fieldwork modules are borne by the student.

UCD offers a number of graduate scholarships for full-time, self-funding international students, holding an offer of a place on a UCD masters programme. Please see [www.ucd.ie/global/scholarships/](http://www.ucd.ie/global/scholarships/) for further information.

## Related Masters

- MSc Risk, Resilience and Sustainability
- MA Geography
- MA Geopolitics and the Global Economy
- MA Critical Geographies: Crises, Climate & Inequality

### CONTACT US

#### EU Students

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#### International Students

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w: [www.ucd.ie/global](http://www.ucd.ie/global)

### APPLY NOW

This programme receives significant interest so please apply early online at

[www.ucd.ie/apply](http://www.ucd.ie/apply)