

MSC (GEOINFORMATICS)

Overview

NFQ Level 9, Major Award

The MSc (Geoinformatics) is a full-time programme running for 12 months from the date of first registration for the programme.

All modules will be completed within a 12 month period, with **60** credits of Part I required for the Postgraduate Diploma, and **90** credits of Parts I and II required for the MSc.

Postgraduate Diploma Exit Award

Students who successfully complete 60 credits in Part I may choose to exit the programme and be awarded the Postgraduate Diploma in Geoinformatics. (<https://ucc-ie-public.courseleaf.com/programmes/pdgeo/>)

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

Programme Requirements

Code **Title** **Credits**
Students take **90** credits.

Part I

Students take **60** credits as follows - all listed core modules (**55** credits) and **5** credits of elective modules:

Core Modules

GG6501	Introduction to Geographical Information Systems	5
GG6502	Introduction to Remote Sensing	5
GG6505	Applications of Geoinformatics	10
GG6531	Computer Programming for GIS Applications	5
GG6533	Spatial Ecology and GIS	5
GG6535	Data Visualisation	5
GG6536	Geospatial Data Analysis	10
GG6537	Internet GIS	10

Elective Modules

Students take one module to the value of **5** credits from the following:

GL6025	Geoinformatics for Environmental Geology (5)	
GL6022	Environment and Planning: Policy & Regulation (5)	
GG6541	Introduction to Coastal and Marine Processes (5)	
LW6617	International Biodiversity and Ecosystems Law and Policy (5)	
LW6618	Climate Change Law and Policy (5)	
PD6205	Planning and Management of Natural Resources (5)	

Part II

Students take **30** credits as follows:

Core Modules

GG6511	Dissertation in Geoinformatics	30
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Total Credits **90**

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.

Programme Learning Outcomes

Programme Learning Outcomes for MSc in Geoinformatics (NFQ Level 9, Major Award)

On successful completion of this programme, students should be able to:

- Explain the theoretical and practical principles and concepts that underpin the technologies of Geographical Information Systems and Science (GIS), Remote Sensing (RS), and related areas of Geoinformatics (e.g. global navigation satellite systems, geospatial data analysis, web applications);
- Apply knowledge of these technologies in a variety of sectors (e.g. local and national government, industry, commerce, the public sector, resource management) and at scales from the local to the global;
- Appreciate the current uses and users of Geoinformatics within Irish industry, policy and education, and evaluate how the discipline will support future economic and social developments in the country;
- Use a variety of Geoinformatics methods and tools including computational analysis, fieldwork, numerical modelling and computer programming using several leading software and programming packages;
- Prepare and present seminars, write reports and create cartographic and web-based Geoinformatics products to a professional standard;
- Apply the Geoinformatics skills and knowledge gained to real world problems through completion of an independent project based on directed research.
- Prepare a research paper according to the format of a standard scientific journal.