

**GEOGRAPHICAL INFORMATION SYSTEMS (JANUARY START) (MSc/PgDip/PgCert)**  
**57F8JSB1/61F8JSVX/62F8JSVZ**

*Duration:* 12 months full-time or 24 months part-time (MSc); 9 months full-time or 20 months part-time (PgDip); 4 months full-time or 8 months part-time over 2 years (PgCert).

*Content:*

Candidates shall be required to attend the following designated programme of courses:

**FULL TIME ROUTE**

Stage 1

GG5567 Advanced Spatial Analysis and Programming (15 credit points)  
GG5565 Introduction to GIS Tools, Techniques, Cartography and Geovisualisation (15 credit points)  
GG5569 Fundamentals and Advanced Applications of Map Algebra (15 credit points)  
GG5540 Current Applications of GIS (15 credit points) incorporating one or two of the following:

- Renewable Energy Applications of GIS
- Offshore Survey Applications of GIS
- Oil and Gas Applications of GIS
- Business Applications of GIS
- Environmental Applications of GIS
- Planning Applications of GIS
- Archaeological Applications of GIS
- Transport Applications of GIS
- Precision Agriculture Applications of GIS

Stage 2

All the courses for Stage 1, plus:

GG5910 Dissertation in Geographical Information Systems (60 credit points)

Stage 3

All the courses for Stage 1 and 2, plus:

GG5067 Origins, Evolutions and Implementation of GIS (15 credit points)  
GG5059 UAV Remote Sensing, Monitoring and Mapping (15 credit points)  
GG5069 WebGIS and Online Mapping (15 credit points)  
CS5097 Database Systems and Big Data (15 credit points)

**PART TIME ROUTE**

Year 1

GG5567 Advanced Spatial Analysis and Programming (15 credit points)  
GG5565 An Introduction to GIS Tools, Techniques, Cartography and Geovisualisation (15 credit points)

Year 2

GG5067 Origins, Evolutions and Implementation of GIS (15 credit points)  
GG5059 UAV Remote Sensing, Monitoring and Mapping (15 credit points)  
GG5569 Fundamentals and Advanced Applications of Map Algebra (15 credit points)  
GG5540 Current Applications of GIS (15 credit points) incorporating one or two of the following:

- Renewable Energy Applications of GIS
- Offshore Survey Applications of GIS
- Oil and Gas Applications of GIS
- Business Applications of GIS
- Environmental Applications of GIS
- Planning Applications of GIS
- Archaeological Applications of GIS
- Transport Applications of GIS
- Precision Agriculture Applications of GIS

GG5910 Dissertation in Geographical Information Systems (60 credit points)

Year 3

GG5069 WebGIS and Online Mapping (15 credit points)

CS5097 Database Systems and Big Data (15 credit points)

Assessment: By a combination of (i) written assignments, practical's and fieldwork, presentations and laboratory reports - as prescribed for each course, (ii) a dissertation.