COURSE SPECIFICATION

MSc Geographical Information Systems

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Please refer to the Course Specification Guidance Notes for guidance on completing this document.

Course Title	***MSc Geographical Information Systems***
Final Award	*MSc*
Exit Awards	*PgCert, PgDip, MSc*
Course Code / UCAS code (if applicable)	C0620F; C0620P/ P0620FTC; P0620PTC
Mode of study	*Full time, Part time*
Mode of delivery	*Campus*
Normal length of course	*1-year full time; 2 years part time*
Cohort(s) to which this course specification applies	*From September 2022 intake onwards and January 2024 intake onwards*
Awarding Body	*University of Portsmouth*
Teaching Institution	*University of Portsmouth*
Faculty	*Faculty of Science & Health*
School/Department/Subject Group	*School of the Environment and Life Sciences*
School/Department/Subject Group webpage	*School of the Environment and Life Sciences | University of Portsmouth*
Course webpage including entry criteria	*https://www.port.ac.uk/study/courses/postgraduate-taught/msc-geographical-information-systems*
Professional and/or Statutory Regulatory Body accreditations	*none*
Quality Assurance Agency Framework for Higher Education Qualifications (FHEQ) Level	*Level 7*

This course specification provides a summary of the main features of the course, identifies the aims and learning outcomes of the course, the teaching, learning and assessment methods used by teaching staff, and the reference points used to inform the curriculum.
This information is therefore useful to potential students to help them choose the right course of study, to current students on the course and to staff teaching and administering the course.

Further detailed information on the individual modules within the course may be found in the relevant module descriptors and the Course Handbook provided to students on enrolment.

Please refer to the Course and Module Catalogue for further information on the course structure and modules.

Educational aims of the course

- To provide a systematic, coherent and balanced education to Postgraduate Certificate, Postgraduate Diploma and Masters Degree levels within the curriculum of Geographical Information Systems
- To develop detailed knowledge and understanding of the theory and practice of GIS, together with recent advances in computing technology relevant to the GIS field.
- To build up practical experience in the use of high quality hardware and software tools for d mapping. geospatial analysis, remote sensing and database management.
- To encourage sound judgement of project feasibility and a structured approach to problem solving through extended project work.
- To develop abilities in assimilating and communicating technical topics in the GIS field through project reports and research.
- To encourage the adoption of GIS methods in government and industry by supporting opportunities for collaborative projects involving the MSc students

Course Learning Outcomes and Learning, Teaching and Assessment Strategies

The Quality Assurance Agency for Higher Education (QAA) sets out a national framework of qualification levels, and the associated standards of achievement are found in their Framework for Higher Education Qualifications document.

The Course Learning Outcomes for this course are outlined in the tables below.

A. Knowledge and understanding of:			
LO number	**Learning outcome**	**Learning and Teaching methods**	**Assessment methods**
A1	The key theories and fundamental concepts of GIS - to appreciate the varying nature of spatial data, the difference between alternative data models and data structures, and the impact they have on GIS functionality and applicability to real world problems. Including: emerging technologies for data collection, management, analysis and visualisation, and an awareness of the rapid technological developments in the field	Lectures, practicals.	Portfolios, essay, practicals
A2	Georeferencing including geoids, coordinate systems and projections and awareness of the problems of fuzziness, uncertainty and error propagation. Able to employ methods of assessing accuracy, both qualitative and quantitative; understand the suitability of alternative database architectures for specific applications, interpret formal entity-relationship models, implement a simple relational database design and construct both simple and complex SQL queries, involving joins and sub-queries	Lectures, practicals.	Portfolios, practicals, research project
A3	Using industry-standard software to undertake and critically evaluate a variety of techniques in spatial data analysis to justify the choice of methodology for analysing spatially referenced data.	Lectures, practicals, fieldwork	Reports, research project
A4	The range and suitability of remote sensing data sources and analytical techniques, and demonstrate successful application of image processing methods using industry-standard software applied to real-world scenarios.	Lectures, practicals.	Practicals, reports, research project
A5	The principles of research design, the main methodological strategies used in the analysis and interpretation of spatial information, and able to show a critical understanding of the appropriate contexts for their use including how to plan, undertake and report on work undertaken as part of fieldwork using primary data capture methods.	Lectures, practicals, seminars.	Portfolios, practicals, reports, research project

B. Cognitive (Intellectual or Thinking) skills, able to:			
LO number	**Learning outcome**	**Learning and Teaching methods**	**Assessment methods**
B1	Assess the merits of contrasting theories, explanations, policies and methodologies.	Lectures, practicals, seminars.	Essay, research project.
B2	Prioritise tasks and make appropriate and reasoned decisions. Analyse a variety of sources of evidence and able to apply appropriate problem-solving techniques.	Lectures, practicals, seminars.	Portfolios, practicals, research project
B3	Critically judge and evaluate the influence of spatial context and evidence.	Lectures, practicals, seminars.	Portfolios, essay, practicals, research project
B4	Critically interpret data, graphical and cartographical representations and text, and abstract, synthesise and visualise information.	Lectures, practicals, seminars, fieldwork.	Portfolios, essay, practicals, exam, research project.
B5	Independently plan, design and conduct a piece of rigorous research or enquiry, including the production of a final report.	Lectures, practicals, seminars, fieldwork.	Research project

C. Practical (Professional or Subject) skills, able to:			
LO number	**Learning outcome**	**Learning and Teaching methods**	**Assessment methods**
C1	Combine and interpret different types of geographical evidence.	Lectures, practicals, fieldwork.	Portfolios, practicals, research project.
C2	Apply a range of techniques for the analysis of geographical data and interpret the outcomes.	Lectures, practicals, fieldwork.	Portfolios, essay, practicals, research project.
C3	Employ a variety of field and laboratory-based methods for the collection and analysis of geographical information, Undertake data conversion and transfer between a range of quantitative datasets.	Lectures, practicals, fieldwork.	Portfolios, practicals, research project.
C4	Design a research project, apply an appropriate methodology, and present the findings in an appropriate format.	Lectures, seminars, fieldwork.	Research project.
C5	Adapt to technical changes in the workplace environment.	Lectures, practicals, fieldwork.	Portfolios, practicals, research project.

D. Transferrable (Graduate and Employability) skills, able to:			
LO number	**Learning outcome**	**Learning and Teaching methods**	**Assessment methods**
D1	Communicate ideas, principles and theories effectively by oral, written and visual means.	Lectures, practicals, seminars, fieldwork.	Portfolios, essay, practicals, research project.
D2	Work effectively in teams and independently, on given projects or tasks, applying advanced statistical and numerical techniques to geographical information.	Lectures, practicals, seminars, fieldwork.	Portfolios, essay, practicals, research project
D3	Apply the latest Information Technology (e.g., Web & Internet, databases, & spreadsheets) effectively for the collection and analysis of spatial information, demonstrating self-confidence; self-awareness; intellectual integrity; empathy and insight.	Lectures, practicals, seminars, fieldwork.	Portfolios, practicals, research project.
D4	Demonstrate high levels of attainment in information handling and retrieval (including use of online computer searches), including demonstrating autonomous learning and metacognition.	Lectures, practicals, seminars, fieldwork.	Portfolios, practicals, research project
D5	Demonstrate an ability for decision making and prioritizing tasks; synthesizing, contextualising and critically evaluating information of different types and from different sources.	Lectures, practicals, seminars, fieldwork.	Portfolios, practicals, research project

Academic Regulations

The current University of Portsmouth Academic Regulations: Examination & Assessment Regulations will apply to this course.

Support for Student Learning

The University of Portsmouth provides a comprehensive range of support services for students throughout their course, details of which are available at the MyPort student portal.

Evaluation and Enhancement of Standards and Quality in Learning and Teaching

The University of Portsmouth undertakes comprehensive monitoring, review and evaluation of courses within clearly assigned staff responsibilities. Student feedback is a key feature in these evaluations, as represented in our Policy for Listening to and Responding to the Student Voice where you can also find further information.

Reference Points

The course and outcomes have been developed taking account of:

- University of Portsmouth Curriculum Framework Specification
- University Vision 2030 and Strategy 2025
- University of Portsmouth Code of Practice for Work-based and Placement Learning
- Quality Assurance Agency UK Quality Code for Higher Education
- Quality Assurance Agency Qualification Characteristic Statements
- Quality Assurance Agency Subject Benchmark Statement for Geography
- Quality Assurance Agency Framework for Higher Education Qualifications
- Requirements of Professional and/or Statutory Regulatory Bodies: Vocational and professional experience, scholarship and research expertise of the University of Portsmouth's academic members of staff
- National Occupational Standards

Changes to your course/modules

The University of Portsmouth has checked the information provided in this Course Specification and will endeavour to deliver this course in keeping with this Course Specification. However, changes to the course may sometimes be required arising from annual monitoring, student feedback, and the review and update of modules and courses.

Where this activity leads to significant changes to modules and courses there will be prior consultation with students and others, wherever possible, and the University of Portsmouth will take all reasonable steps to minimise disruption to students.

It is also possible that the University of Portsmouth may not be able to offer a module or course for reasons outside of its control, for example, due to the absence of a member of staff or low student registration numbers. Where this is the case, the University of Portsmouth will endeavour to inform applicants and students as soon as possible, and where appropriate, will facilitate the transfer of affected students to another suitable course.

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