

Liverpool John Moores University

Title: MANAGING GEOGRAPHIC INFORMATION
Status: Definitive
Code: **5000GEOG** (114475)
Version Start Date: 01-08-2011

Owning School/Faculty: Humanities and Social Science
Teaching School/Faculty: Humanities and Social Science

Team	Leader
John Boothby	Y

Academic Level: FHEQ5
Credit Value: 12.00
Total Delivered Hours: 30.00
Total Learning Hours: 120
Private Study: 90

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	10.000
Workshop	20.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Assignment CW File , 3000 word equivalent	100.0	

Aims

*To explore the need for management systems for geographical information;
To investigate a range of applications of such systems;
To prepare the ground for specialised modules in GIS at Level 3;
To engender an appreciation of the value and requirements of self-paced learning.*

Learning Outcomes

After completing the module the student should be able to:

- 1 Understand the reasons for the saliency of Geographical Information Science (GIS) in its applications in research, environmental management, business, logistics, planning and other relevant fields;
- 2 Explain basic concepts and define operational characteristics of GIS;
- 3 Acquire, manage and use spatially-referenced data;
- 4 Carry out basic analytical and presentational work in a GIS software systems;
- 5 Initiate problem specification for geographical investigation.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Essay	1	2	3	4	5
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Outline Syllabus

Introduction to purpose and scope of GIS (self paced on-line tutorial)
Issues in data handling for GIS (pencil and paper exercise)
Using a GIS for investigation and analysis (self-paced on-line tutorials)
Presenting results in map, table, and other formats (self paced on-line tutorial)
On-screen digitising
Introduction to vector and raster models
Functions of topology, spatial analysis and geoprocessing
Problem-solving exercises

Learning Activities

Lectures, computer workshops, computer workshop surgeries, data capture, library and www search. A significant element of the module is self-paced learning in the context of mastering ArcView GIS.

References

Course Material	Book
Author	DeMers M
Publishing Year	2004
Title	Fundamentals of Geographical Information Systems
Subtitle	3rd ed
Edition	
Publisher	London: Wiley
ISBN	

Course Material	Book
Author	ESRI

Publishing Year	1996
Title	Using ArcView
Subtitle	
Edition	
Publisher	California: Redlands Environmental Research Institute
ISBN	

Course Material	Book
Author	ESRI/ Geoinformation International
Publishing Year	1997
Title	Getting to Know ArcView GIS
Subtitle	
Edition	
Publisher	London: Geoinformation International
ISBN	

Course Material	Book
Author	Green, D.
Publishing Year	1999
Title	GIS
Subtitle	A Source Book for Schools.
Edition	
Publisher	London, Taylor & Francis.
ISBN	

Course Material	Book
Author	Johnston, C. A.
Publishing Year	1998
Title	Geographic Information Systems in Ecology
Subtitle	
Edition	
Publisher	Oxford, Blackwell.
ISBN	

Course Material	Book
Author	Kraak, M. J. & Ormeling, F. J.
Publishing Year	1996
Title	Cartography
Subtitle	Visualisation of Spatial Data.
Edition	
Publisher	London, Addison-Wesley Longman.
ISBN	

Course Material	Book
Author	Krygier, J. & Wood, D.
Publishing Year	2005
Title	Making Maps

Subtitle	A Visual Guide to Map Design for GIS.
Edition	
Publisher	London/Guilford
ISBN	

Course Material	Book
Author	Longley, P. A. Goodchild, M. F. Maguire, W. J. & Rhind, D. W.
Publishing Year	2005
Title	GIS and Science
Subtitle	
Edition	2nd Edition.
Publisher	Chichester, Adams/Wiley.
ISBN	

Course Material	Book
Author	Malone, L. Palmer, A. M. & Voigt, C. L.
Publishing Year	2002
Title	Mapping Our World
Subtitle	GIS Lessons for Educators.
Edition	
Publisher	Redlands, ESRI Press.
ISBN	

Course Material	Book
Author	Mitchell, A.
Publishing Year	1999
Title	The ESRI Guide to GIS Analysis Volume 1
Subtitle	Geographic Patterns & Relationships.
Edition	
Publisher	Redlands, ESRI Press.
ISBN	

Course Material	Book
Author	O'Sullivan, D. & Unwin, D. J.
Publishing Year	2002
Title	Geographic Information Analysis
Subtitle	
Edition	
Publisher	London, Wiley.
ISBN	

Course Material	Book
Author	Taylor, G. & Blewitt, G.
Publishing Year	2006
Title	Intelligent Positioning
Subtitle	GIS-GPS Unification.

Edition	
Publisher	London, Wiley.
ISBN	

Course Material	Book
Author	Wadsworth, R. & Treweek, J.
Publishing Year	1999
Title	Geographical Information Systems for Ecology
Subtitle	
Edition	
Publisher	London, Addison-Wesley Longman.
ISBN	

Notes

In GIS more than anywhere else, Geography has developed a corpus of approaches and methodologies to problem-solving that truly invoke spatial consideration. Strategies for acquiring, managing and using spatially-referenced data are now to be found across the whole of society. As IT increases in power and sophistication these technologies will become even more pervasive. This practical module introduces students to the application of such technologies which carry significant economic, social and political implications. Students may continue to pursue an interest in GIS at Level 3. Students completing this module will have a basic grounding in the operation of ArcView software.