



The University of Southern Queensland

## Course Specification

### Description: Geographic Data Visualisation

Subject	Cat-Nbr	Class	Term	Mode	Units	Campus
GIS	3404	11133	1, 2002	EXT	1.00	TWMBBA

<b>Academic Group:</b>	FOENS
<b>Academic Org:</b>	FOES05
<b>HECS Band:</b>	2
<b>ASCED Code:</b>	031103

### STAFFING

Examiner: Frank Young  
Moderator: Armando Apan

### SYNOPSIS

The course is designed to introduce students to computer assisted geographic data (or cartographic) visualisation methods and processes. The emphasis will be on digital and hardcopy map design and communication, using computer assisted cartographic techniques and multimedia enhancements.

### OBJECTIVES

On successful completion of this course students will be able to:

- understand the concepts of geographic data (or cartographic) visualisation and communications;
- be familiar with the use of different map projections;
- design a cartographically sound map;
- understand the techniques associated with the capture of geographic data;
- generate, edit and output simple or multimedia maps using computer assisted hardware and software;
- demonstrate an understanding of the processes and presentation methodology of multimedia geographic data visualisation enhancements;
- understand the requirements of graphic metric, cartographic and metadata accuracy and quality.

### TOPICS

Description	Weighting (%)
1. Geographic data visualisation and communication concepts	5.00

2. Introduction to desktop and WWW graphics representation	5.00
3. Map projections and reference systems	5.00
4. Map design, cartometrics and metadata quality	15.00
5. Terrain and volumetric representation	10.00
6. Manipulation and editing of image and geographically represented data	15.00
7. Output and presentation of computer assisted maps and graphics	20.00
8. Three dimensional aspects of geographic data presentation	10.00
9. Multimedia cartography	15.00

## REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.

Please refer to Young F, GIS3404 Geographic Data Visualisation, Selected Bibliography for suggested web sites, 2001.

Cartography, Journal of Mapping Sciences Institute, Australia.

Young F, GIS1401 Geographic Data Presentation, USQ Publication, 2000.

Anlinghaus S L (ed) *Practical Handbook of Digital Mapping: Terms and Concepts*, CRC Press, 1994.

Cartwright W, Peterson M and Gartner G *Multimedia Cartography*, Springer, Germany, 1999.

Clarke K C *Analytical and Computer Cartography*, Prentice Hall, 2nd Edition, USA, 1995.

Dent *Cartography - Thematic Map Design*, William C Brown Publishers.

Forrest G *Digital Mapping for Computer Assisted Cartography and GIS*,

MacEckren A M and Taylor D R F *Visualisation in Modern Cartography*, Pergamm, 1994.

Muehrcke P and Muehrcke J *Map Use Reading, Analysis and Interpretation*, J P Publications, Wisconsin, 1992.

## STUDENT WORKLOAD REQUIREMENTS

ACTIVITY	HOURS
Assessment	40
Directed Study	62
Examinations	3
Private Study	50

## ASSESSMENT DETAILS

Description	Marks Out of	Wtg(%)	Required	Due Date
CARTOGRAPHIC COMMUNICATION ASS	150.00	15.00	Y	04 Mar 2002 (see note 1)
GRAPHIC DESIGN, PRESENTATION &	250.00	25.00	Y	04 Mar 2002 (see note 2)
3 HOUR CLOSED EXAMINATION	600.00	60.00	Y	END S1 (see note 3)

### NOTES:

1. Further details about the due dates are detailed in the assessment section of the Course Specifications.
2. Further details about the due dates are detailed in the assessment section of the Course Specifications.
3. Further details about the due dates are detailed in the assessment section of the Course Specifications.

## OTHER REQUIREMENTS

- 1 To receive a passing grade in this course a student must normally achieve at least 45% in each of the assessments and at least 50% of the available marks for the course.
- 2 A minimum standard of communication skills must be demonstrated in order for a passing grade to be achieved.
- 3 The due date for an assignment is the date by which a student must submit the assignment to the USQ. The onus is on the student to provide proof of the submit date, if requested by the Examiner.
- 4 Students must retain a copy of each item submitted for assessment. This must be produced within five days if required by the Examiner.
- 5 In accordance with University's Assignment Extension Policy (Regulation 5.6.1), the examiner of a course may grant an extension of the due date of an assignment in extenuating circumstances.
- 6 If students submit assignments after the due date without prior approval then a penalty of up to 20% of the total marks for the assignment will apply for each working day late.
- 7 In the event that a due date for an assignment falls on a local public holiday in their area, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.
- 8 The Faculty of Engineering and Surveying will NOT accept submission of hand written or typed assignments by facsimile, e- mail or computer diskette. Students in remote locations who do not have regular access to postal services may be given special consideration.
- 9 The final grades for students will be assigned on the basis of the aggregate of the marks obtained for each of the assessments in the course.

- 10 A closed examination is an examination where the candidates are allowed to bring only writing and drawing instruments into the examination.
  - 11 The Faculty of Engineering and Surveying does not offer supplementary examinations.
  - 12 Students who have undertaken all of the required assessments in a course but who have failed to meet some of the specified objectives of a course within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non directed personal study.
  - 13 Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or to sit for an examination at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded IDS (Incomplete - Deferred Examination; IDM (Incomplete Deferred Make-up; IDSM (Incomplete Deferred Examination and Make-up).
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