

Module Title Data Visualisation And Analysis	Reference CM4000 SCQF SCQF Level 10 SCQF Points 15 ECTS Points 7.5 Created May 2002 Approved April 2005 Amended August 2007 Version No. 4
Keywords Visualisation, Visualisation Tools.	

This Version is No Longer Current

The latest version of this module is available [here](#)

Prerequisites for Module

CM3063 - Interactive 2D Graphics or
CM2006 - Interface Design (or equivalents)

Corequisite Modules

None.

Precluded Modules

None.

Aims of Module

To introduce the principles and techniques involved in the displaying of data to provide greater insight into the information contained within the data.

Learning Outcomes for

Specific information visualisation issues: Selection, rearrangement and interaction of data. Display of quantitative data, including univariate, bivariate, trivariate, multidimensional, tree data and network data. Representation and encoding methods. Dynamic exploration of data. Visualisation of physical data.

Indicative Student Workload

<i>Contact Hours</i>	Full Time
Lectures	24
Laboratories	24
Coursework preparation	13
Assessment	10
<i>Directed Study</i>	
Directed Information Retrieval	12
Directed Reading	12

Module

On completion of this module, students are expected to be able to:

- 1.Explain the issues underlying the visualisation of data.
- 2.Describe and evaluate techniques available to elucidate the information content of different types of data.
- 3.Critically appraise a variety of standard visualisation techniques for the extraction of information from quantitative data.
- 4.Design a data visualisation tool for a set of realistic data.

Indicative Module Content

A variety of information visualisation tools will be made available to students to illustrate the key techniques discussed.

Private Study

Private Study

55

Mode of Delivery

Key concepts are introduced and illustrated through the medium of lectures. These concepts are reinforced through problem-solving laboratory sessions which are also designed to develop the necessary practical skills through a series of laboratory exercises.

Assessment Plan

	Learning Outcomes Assessed
Component 1	1,2,3
Component 2	4

Component 1 - This is a closed book examination.

Component 2 - Coursework

Indicative Bibliography

- 1.SPENCE, R., 2006. Information Visualization: Design for Interaction. 2nd Ed. Prentice Hall.
- 2.CARD, S K., 1999. Readings in Information Visualization: Using Vision to Think. Morgan Kaufmann.