615-201 Information Visualisation

Credit Points:	12.50
Level:	2 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus. Lectures and workshops.
Time Commitment:	Contact Hours: 2 one-hour lectures per week; 1 two-hour workshop per week. Total 48 hours. Total Time Commitment: 120 hours total time commitment.
Prerequisites:	*Informatics 2: People, Data and the Web*
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
Coordinator:	Dr Jon Pearce
Contact:	.
Subject Overview:	The visualisation of data and concepts is of great importance in science, serving both as a means of investigation and also a means of communicating to other scientists, business, government and the public. Students will learn the principles of visualisation design, and gain an understanding of the following topics: categories and concepts of data and their mapping to visual displays; the nature and purpose of different types of data plots, diagrams and other visual representations; the psychology of decision-making in relation to visualisation, including systematic distortions and manipulations of perception; and historic and contemporary uses of visualisation and its role in the creation and dissemination of new knowledge. Students will learn how to apply this knowledge to the design of effective visualisations for various audiences.
Objectives:	On completion of this subject students should: # understand and be able to apply principles of effective visualisation, including: data plots; theoretical models; and interactive displays; # appreciate the role of visualisations in the development and dissemination of arguments and knowledge, including the psychology of decision-making relevant to visualisation, and the role of visualisation in historic and contemporary science, business and governance.
Assessment:	Project 1: Group Report. The visual analysis of data sets expected to take about 14 hours (15%) due during the first part of the semester.Project 2: Group Report. A visualisation project expected to take about 22 hours (30%) due near the end of the semester. It will include an oral presentation.Peer review: Aspects of students' work will be reviewed by other students using an anonymous peer review process (5%).Exam: 2-hour end-of-semester written examination (50%). A pass in the exam is a hurdle requirement for this subject.
Prescribed Texts:	None
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2009/D09)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)**

	# **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On completion of this subject students should have developed the following generic skills: # the ability to analyse and solve real-world problems with computers; # the ability to synthesise information and communicate results effectively; # the ability to work effectively as a member of a project team; # the capacity for critical and independent thought and reflection; # the ability to make an oral presentation.
Notes:	Students enrolled in the BSc (both pre-2008 and new degrees), BASc or a combined BSc course will receive science credit for the completion of this subject. Students undertaking this subject will be expected to regularly access an internet-enabled computer.