SCIE90007 E-Science

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2011.
Time Commitment:	Contact Hours: 1 x two-hour seminar per week and 1 x 1-hour practical class per week Total Time Commitment: 10 hours per week during the 12 teaching weeks of semester, plus study for examination.Students are expected to devote about 10 hours per week to this subject. In addition to attending the weekly 3-hour classes, students are expected to spend approximately 7 hours each week on reading, preparing for classes, and completing assignments.
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	Students studying this subject are expected to be competent in the general use of computers, including file management, productivity software such as word processors and spreadsheets, and the use of the internet for research. 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.
Contact:	Martin Gibbs **martin.gibbs@unimelb.edu.au (mailto:martin.gibbs@unimelb.edu.au)**
Subject Overview:	This subject focuses on approaches to the management and manipulation of scientific data. Topics may include: the nature of data; data lifecycle and management; data access; data analysis and manipulation; data visualisation, security, storage and curation. Students will learn how to manage research data, communicate research results to a wide audience, and oversee the efficient extraction and integration of information from diverse data sources, and how data might be preserved sustainably.
Objectives:	On completion of this subject students should be able to: # understand the scientific data lifecycleunderstand and be able to apply principles for managing scientific data collections # access and contribute to distributed data collections # manipulate structured and unstructured data; and # appreciate the role of scientific data management in the creation, communication and preservation of scientific knowledge.
Assessment:	One 1500 word assignment, due mid-semester (20%); one 2000 word practical assignment (30%) due end of semester; one 2 hour end-of-semester examination (50%)
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
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: # analyse and solve real-world scientific problems with computers; # discern quality with respect to the goals of the subject; # synthesise information and communicate results effectively;

	# work effectively as a member of a project team
Related Course(s):	Master of Biotechnology Master of Information Systems Master of Information Systems Master of Information Systems Master of Science (Botany) Master of Science (Chemistry) Master of Science (Earth Sciences) Master of Science (Epidemiology) Master of Science (Geography) Master of Science (Information Systems) Master of Science (Physics) Master of Science (Vision Science) Master of Science (Zoology)
Related Majors/Minors/Specialisations:	Environmental Science Environmental Science