433-667 Text and Document Management

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Time Commitment:	Contact Hours: 3 hours per week; Non-contact time commitment: 84 hour Total Time Commitment: Not available
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Subject Overview:	This subject examines some of the technologies that make large-scale information retrieval systems possible. Management of large text and image databases. Text and image compression: information content; modelling and coding; minimum-redundancy coding; arithmetic coding; constrained coding problems. Text indexing methods: index compression. Query processing mechanisms: query paradigms, implementation of efficient query mechanisms. Information retrieval. Information filtering.
Objectives:	The objectives of this subject are for students to understand the technologies underlying large-scale information retrieval systems; to implement and evaluate text and image compression algorithms; and to be familiar iwth efficient indexing and query mechnisms. Topics covered include text and image compression, minimum-redundancy coding, text indexing methods, index compression, query processing, information retrieval, and information filtering.
Assessment:	A 1-hour mid-semester test (20%); one written report of approximately 5000-words including a review phase undertaken during semester (25%); one 15-minute oral presentation during semester (5%); and one 2-hour written examination at the end of semester (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 successful completion, students should: # be familiar with compression concepts as they apply to various types of data, including textual, image and index data; # be able to decompose data representations into the elements relating to modeling and those related to coding; # have knowledge of a range of modeling and coding techniques; # have an understanding of information retrieval methodologies as they relate to textual data; # be familiar with issues relevant to the efficient implementation of web search systems and information retrieval systems; # be able to undertake problem identification, formulation and solution; # have a capacity for independent critical thought, rational inquiry and self-directed learning; and # have a profound respect for truth and intellectual integrity, and for the ethics of scholarship.

Related Course(s):	Master of Information Technology Master of Software Systems Engineering