

COMP30018 Knowledge Technologies

Credit Points:	12.50												
Level:	3 (Undergraduate)												
Dates & Locations:	This subject is not offered in 2013.												
Time Commitment:	Contact Hours: 36 hours, comprising of two 1-hour lectures and one 1-hour workshop per week Total Time Commitment: 120 hours												
Prerequisites:	<p>One of the following:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>COMP20003 Algorithms and Data Structures</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>COMP90038 Algorithms and Complexity</td> <td>Not offered 2013</td> <td>12.50</td> </tr> <tr> <td>COMP20007 Design of Algorithms</td> <td>Not offered 2013</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	COMP20003 Algorithms and Data Structures	Not offered 2013	12.50	COMP90038 Algorithms and Complexity	Not offered 2013	12.50	COMP20007 Design of Algorithms	Not offered 2013	12.50
Subject	Study Period Commencement:	Credit Points:											
COMP20003 Algorithms and Data Structures	Not offered 2013	12.50											
COMP90038 Algorithms and Complexity	Not offered 2013	12.50											
COMP20007 Design of Algorithms	Not offered 2013	12.50											
Corequisites:	None												
Recommended Background Knowledge:	None												
Non Allowed Subjects:	<p>Students cannot enrol in and gain credit for this subject and:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>COMP90049 Knowledge Technologies</td> <td>Not offered 2013</td> <td>12.50</td> </tr> </tbody> </table> <p>433-352 Data on the Web</p>	Subject	Study Period Commencement:	Credit Points:	COMP90049 Knowledge Technologies	Not offered 2013	12.50						
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Core Participation Requirements:	<p><p>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.</p> <p>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</p></p>												
Contact:	email: kotagiri@unimelb.edu.au (mailto:kotagiri@unimelb.edu.au)												
Subject Overview:	<p>Much of the world's knowledge is stored in the form of unstructured data (e.g. text) or implicitly in structured data (e.g. databases). In this subject students will learn algorithms and data structures for extracting, retrieving and storing explicit knowledge from various data sources, with a focus on the web.</p> <p>The aim of this subject is to introduce students to knowledge technologies and give them exposure to what applied research is all about.</p>												
Objectives:	<p>On completion of the subject, students should be able to:</p> <ul style="list-style-type: none"> # Having completed this unit the student is expected to describe and apply the fundamentals of knowledge systems, including data acquisition and aggregation, knowledge extraction, text retrieval, machine learning and data mining # Gain an understanding of a representative selection of knowledge technology techniques in both theoretical and applied contexts 												

	<ul style="list-style-type: none"> # Develop familiarity with component technologies used in commonly-deployed knowledge technology systems # Get a feel for what research is all about, especially relating to knowledge technology-related projects underway at The University of Melbourne
Assessment:	<p>Project work during semester incorporating both programming and a report, expected to take about 36 hours (30%) A mid-semester test (10%) 2-hour end-of-semester examination (60%) To pass the subject, students must obtain at least: 15/30 in project work And 35/70 in the mid-semester test and end-of-semester written examination combined ILO1 is addressed in the projects (applied) and the mid-semester test and final exam (theoretical), ILO2 in the projects (through using a range of systems that are provided to students or that students experiment with themselves), and ILO3 in the projects (which are generally themed around projects underway at the University, to give them a more applied feel).</p>
Prescribed Texts:	TBA
Breadth Options:	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> # Bachelor of Arts (https://handbook.unimelb.edu.au/view/2013/B-ARTS) # Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2013/B-COM) # Bachelor of Environments (https://handbook.unimelb.edu.au/view/2013/B-ENVS) # Bachelor of Music (https://handbook.unimelb.edu.au/view/2013/B-MUS) <p>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.</p>
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<ul style="list-style-type: none"> # An ability to apply knowledge of basic science and engineering fundamentals # An ability to undertake problem identification, formulation and solution # The capacity to solve problems, including the collection and evaluation of information # The capacity for critical and independent thought and reflection # An expectation of the need to undertake lifelong learning, and the capacity to do so
Related Course(s):	<p>Bachelor of Engineering (Software Engineering) Bachelor of Engineering (Software Engineering)/Bachelor of Science</p>
Related Majors/Minors/Specialisations:	<p>B-ENG Software Engineering stream Computer Science Computer Science Computer Science Computer Science Computing and Software Systems Master of Engineering (Software) Science credit subjects* for pre-2008 BSc, BASc and combined degree science courses Science-credited subjects - new generation B-SCI and B-ENG. Core selective subjects for B-BMED. Software Systems</p>