

Computer Science

Year and Campus:	2010																														
Coordinator:	Professor Alistair Moffat Department of Computer Science and Software Engineering																														
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Overview:	A Computer Science major will provide students with the knowledge and skills to enter a career in the computer industry or in research. Students will learn how to design, analyse, and implement complex systems involving computer networks, databases, and web services. Graduates will have advanced skills in programming, problem solving, and algorithm design and implementation. They will be prepared for the workplace by participating in several realistic programming exercises, and by presenting the results of their work in oral and written form. Graduates will also be able to progress to research honours and masters by coursework degrees, and then on to research higher degrees.																														
Objectives:	.																														
Structure & Available Subjects:	In 2010 a number of new third year level subjects have been introduced, replacing or adding to subjects previously available within the major. Some previously offered subjects have been cancelled. The University is committed to ensuring that students are not disadvantaged by these changes and students may complete a major as defined by the current structure or a structure detailed in a previous year's handbook applicable to any year the student was enrolled in the course. Students completing third year level subjects across multiple years (e.g. in 2009 and 2010) should refer to advice within each subject entry on non-allowed subject combinations. Students unsure about the structure of their intended major should seek advice from the Science Student Centre.																														
Subject Options:	<p>Computer Science major</p> <p>Completion of 50 points of study at third year level.</p> <p>Four of:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>SWEN30006 Software Modelling and Design</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>COMP30017 Operating Systems and Network Services</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>COMP30016 Computer Science Project</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>COMP30019 Graphics and Interaction</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>COMP30021 Theoretical Computer Science</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>COMP30020 Declarative Programming</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>COMP30018 Knowledge Technologies</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>SWEN90008 Software Processes and Management</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>SWEN90006 Software Engineering Methods</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p># 433-303 Artificial Intelligence (prior to 2010) # 433-313 Computer Design (prior to 2010) # 433-330 Theory of Computation (prior to 2010) # 433-332 Operating Systems (prior to 2010) # 433-341 Software Engineering Process and Practice (prior to 2010) # 433-351 Database Systems (prior to 2010) # 433-352 Data on the Web (prior to 2010) # 433-353 Networks and Communications (prior to 2010)</p>	Subject	Study Period Commencement:	Credit Points:	SWEN30006 Software Modelling and Design	Semester 1	12.50	COMP30017 Operating Systems and Network Services	Semester 1	12.50	COMP30016 Computer Science Project	Semester 2	12.50	COMP30019 Graphics and Interaction	Semester 2	12.50	COMP30021 Theoretical Computer Science	Semester 2	12.50	COMP30020 Declarative Programming	Semester 1	12.50	COMP30018 Knowledge Technologies	Semester 2	12.50	SWEN90008 Software Processes and Management	Semester 1	12.50	SWEN90006 Software Engineering Methods	Semester 2	12.50
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	<ul style="list-style-type: none"># 433-361 Programming Language Implementation (prior to 2010)# 433-371 Interactive System Design (prior to 2010)# 433-380 Graphics and Computation (prior to 2010) <p>Note that credit exclusions may apply. Please check individual subject descriptions.</p>
Notes:	This science major is not available to students enrolled in the software engineering stream of the BE/BSc or the BE(IT)/BSc. These students will be required to complete a major in an alternative science discipline.
Related Course(s):	Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences Bachelor of Commerce and Bachelor of Science Bachelor of Science Bachelor of Science and Bachelor of Information Systems