

## 433-303 Artificial Intelligence

<b>Credit Points:</b>	12.50
<b>Level:</b>	3 (Undergraduate)
<b>Dates &amp; Locations:</b>	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus.
<b>Time Commitment:</b>	Contact Hours: Twenty-four hours of lectures and approximately 11 hours of practice classes Total Time Commitment: Not available
<b>Prerequisites:</b>	433-253 Algorithms and Data Structures and 433-255 Logic and Computation.
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<b>Core Participation Requirements:</b>	<p>&lt;p&gt;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.&lt;/p&gt;         &lt;p&gt;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: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;</p>
<b>Coordinator:</b>	Dr Michael Kirley
<b>Subject Overview:</b>	Topics covered include searching, problem solving, logic and deduction, knowledge representation, machine learning, programming languages for artificial intelligence; and a selection from the following: game playing, expert systems, pattern recognition, machine vision, natural language, robotics and planning, neural networks.
<b>Objectives:</b>	On completion of this subject students should understand the foundations of artificial intelligence and the associated technologies that evolved in both declarative and procedural approaches.
<b>Assessment:</b>	A programming project in two parts during semester, expected to take about 36 hours (30%); and a 3-hour end-of-semester written examination (70%). To pass the subject, students must obtain at least 50% overall, 15/30 in project work, and 35/70 in the written examination.
<b>Prescribed Texts:</b>	None
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	<p>On successful completion students should:</p> <ul style="list-style-type: none"> <li># be able to apply knowledge of basic science and engineering fundamentals</li> <li># have an in-depth technical competence in at least one engineering discipline</li> <li># be able to undertake problem identification, formulation and solution</li> <li># understand the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development</li> </ul>

	<ul style="list-style-type: none"> <li># have an expectation of the need to undertake lifelong learning, capacity to do so</li> <li># have a capacity for independent critical thought, rational inquiry and self-directed learning</li> <li># have intellectual curiosity and creativity, including understanding of the philosophical and methodological bases of research activity</li> <li># be open to new ideas and unconventional critiques of received wisdom</li> <li># have a profound respect for truth and intellectual integrity, and for the ethics of scholarship</li> <li># have international awareness and openness to the world, based on understanding and appreciation of social and cultural diversity and respect for individual human rights and dignity</li> </ul>
<b>Notes:</b>	Students enrolled in the BSc (pre-2008 BSc), BAsC or a combined BSc course will receive science credit for the completion of this subject.
<b>Related Course(s):</b>	Bachelor of Engineering (Computer Engineering) Bachelor of Engineering (Electrical Engineering) Bachelor of Engineering (Mechatronics) and Bachelor of Computer Science Bachelor of Engineering (Software Engineering)
<b>Related Majors/Minors/ Specialisations:</b>	Computer Science Computer Science Major