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## 433-380 Graphics and Computation

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008,
	This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: Twenty-four hours of lectures and approximately 11 hours of tutorial classes Total Time Commitment: Not available
Prerequisites:	433-252 Software Engineering Principles and Tools, 433-253 Algorithms and Data Structures, 433-254 Software Design and two subjects (25 points) of first year mathematics.
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.
Subject Overview:	The objective of this subject is for students to have knowledge of computational approaches and methods for robotics, graphics and related areas. Topics covered will include 2-D and 3-D analytic geometry for graphics, representation of 3-D objects, computational techniques for realistic graphic rendering, robot configuration and kinematics, and associated numerical methods.
Assessment:	Project work 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, and 35/70 in the written examination.
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:	<ul> <li># ability to apply knowledge of basic science and engineering fundamentals</li> <li># in-depth technical competence in at least one engineering discipline</li> <li># ability to undertake problem identification, formulation and solution</li> </ul>
Notes:	Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject.
Related Course(s):	Bachelor of Arts Bachelor of Arts and Bachelor of Science Bachelor of Arts and Sciences Bachelor of Engineering (Computer Engineering) Bachelor of Engineering (Electrical Engineering)

Bachelor of Engineering (Mechatronics) and Bachelor of Computer Science
Bachelor of Engineering (Software Engineering)
Bachelor of Science