436-470 Control Systems 2

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: Thirty-six hours of lectures and 12 hours tutorials Total Time Commitment: Not available
Prerequisites:	436-382 Control Systems 1. (Prior to 2005 436-356 Design/Control 2, 436-371 or equivalent).
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
Coordinator:	Dr Chris Manzie
Subject Overview:	Upon completion students should understand the concepts of linearisation, and state-space control and estimation, be able to obtain state-space realisations of systems in several canonical forms and assess stability, controllability and observability; be able to design a state feedback control law and a state estimator to achieve desired closed looped-response; understand the effects of sampling rates and quantisation, be able to design simple digital controllers to single-output systems using classical and state space-methods; understand how to implement continuous and discrete controllers in the real world; be familiar with case studies or real world controller-design problems, and be able perform least squares identification on linear systems.
Assessment:	Two 1-hour mid-semester tests (7.5% each); two group assignments, each up to 8000 words (10% each) due throughout the semester; one end-of-semester 3-hour examination (65%).
Prescribed Texts:	None
Recommended Texts:	Information Not Available
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:	Information Not Available
Related Course(s):	Bachelor of Engineering (Biomedical) Biomechanics Bachelor of Engineering (Mechanical &Manufacturing) and Bachelor of Arts Bachelor of Engineering (Mechanical &Manufacturing)& Bachelor of Science Bachelor of Engineering (Mechanical &Manufacturing)/Bachelor of Commerce Bachelor of Engineering (Mechanical and Manufacturing Engineering)

	Bachelor of Engineering (Mechatronics) and Bachelor of Computer Science Bachelor of Engineering(Mechanical & Manufacturing) and Bachelor of Laws