431-330 Design Laboratory

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus. Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: Ten hours of lectures, 36 hours of laboratory, 2 hours of presentation Total Time Commitment: Not available
Prerequisites:	431-222 Electronic Circuit Design 1 (prior to 2005 Electronic Devices) and 431-204 Digital Systems 2: System Design.
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 Peter Dower
Subject Overview:	On completion of this subject students should be able to plan, manage and complete a small engineering project as a team; design and construct to professional standards using commercial components to a specification; keep laboratory notebooks to professional standards; and write clear and concise reports and present a project to a group of peers. Topics include two design tasks relevant to electrical and computer engineering to be completed by small teams. Support lectures on project management, design and construction skills, oral and written presentations will be given.
Objectives:	See subject overview
Assessment:	Laboratory notebooks to be kept during laboratory sessions and submitted at the end of the semester (10%), a formal written report (less than 3000 words) to be submitted by each team for each design task (35%), an oral presentation on one of the design tasks (25%). Marks will also be awarded for practical and construction skills for both projects (30%).
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:	# ability to apply knowledge of basic science and engineering fundamentals

	# ability to communicate effectively, not only with engineers but also with the community at large # in-depth technical competence in at least one engineering discipline # ability to undertake problem identification, formulation and solution # ability to utilise a systems approach to design and operational performance # ability to function effectively as an individual and in multi-disciplinary and multi-cultural teams, with the capacity to be a leader or manager as well as an effective team member # understanding of the principles of sustainable design and development # understanding of professional and ethical responsibilities and commitment to them # capacity for independent critical thought, rational inquiry and self-directed learning # intellectual curiosity and creativity, including understanding of the philosophical and methodological bases of research activity # openness to new ideas and unconventional critiques of received wisdom
Related Course(s):	Bachelor of Engineering (Biomedical)Biosignals Bachelor of Engineering (Computer Engineering) Bachelor of Engineering (Computer Engineering)/Bachelor of Science Bachelor of Engineering (Computer) and Bachelor of Arts Bachelor of Engineering (Computer) and Bachelor of Commerce Bachelor of Engineering (Computer) and Bachelor of Laws Bachelor of Engineering (Electrical Engineering) Bachelor of Engineering (Electrical Engineering)/Bachelor of Science Bachelor of Engineering (Electrical) and Bachelor of Arts Bachelor of Engineering (Electrical) and Bachelor of Commerce Bachelor of Engineering (Electrical) and Bachelor of Laws Bachelor of Engineering (EngineeringManagement) Computer Bachelor of Engineering (EngineeringManagement) Electrical