375AA Bachelor of Engineering (Mechatronics) and Bachelor of Computer Science

Year and Campus:	2011 - Parkville
CRICOS Code:	020349E
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Undergraduate
Duration & Credit Points:	500 credit points taken over 60 months full time. This course is available as full or part time.
Coordinator:	Allison Kealy
Contact:	**Melbourne School of Engineering** **eng-info@unimelb.edu.auhttp:/www.eng.unimelb.edu.au (http:/ www.eng.unimelb.edu.au)**
Course Overview:	THERE IS NO FURTHER ENTRY INTO THIS COURSE Students who commenced 4th year in 2010 and have not completed, or have failed a fourth year subject, should talk to a course advisor.
Objectives:	On completion of this course graduates should: # Have a sound fundamental understanding of the scientific principles underlying technology; # Possess a broad knowledge base of their chosen discipline and of other disciplines to facilitate effective communication with those other professionals with whom engineers routinely communicate; # Be able to apply the basic principles underlying the management of physical, human and financial resources; # Have acquired the mathematical and computational skills necessary for the solution of theoretical and practical problems; # Possess analytical, problem-solving and design skills, including those appropriate for sustainable development; # Have verbal and written communication skills that enable them to contribute substantially to society; # Have acquired lifelong learning skills for further development professionally and for meeting future changes in technology; # Have acquired a sense of professional ethics and responsibility towards the profession and the community; # Have developed the interpersonal and management skills required by engineers in undertaking professional activities; and # Be able to enact the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development.
Course Structure & Available Subjects:	THE COURSE STRUCTURE BELOW ONLY APPLIES TO RE-ENROLLING STUDENTS WHO COMMENCED THEIR STUDIES PRIOR TO 2008 The recommended or standard course structures are listed below. When setting the timetable every effort will be made to avoid clashes between the times of classes associated with these sets of subjects. Students should be aware however, that if it proves to be impossible to achieve a timetable without clashes in these sets of subjects, the School reserves the right to modify course structures in order to eliminate the conflicts. Students will be advised during the enrolment period of the semester if the recommended courses need to be varied. Where the courses include elective subjects these should be chosen so that timetable clashes are avoided. In particular, students in combined degrees should plan their courses so that the subjects chosen in the other faculty do not clash with those recommended for the engineering component. Credit cannot be obtained for - both 436201 Thermofluids 1 and MCEN30015 Thermofluids both 436353 Mechanics 2 and MCEN30016 Mechanical Dynamics both 436285 Design & Materials 1 and MCEN30017 Mechanics and Materials both 436286 Design & Materials 2 and MCEN30014 Mechanical Design

both 436284 Organisational Engineering and MCEN90010 Finance and Human Resources for Engineers

Subject Options:

Final Year

Electives taken in the last three semesters of the course must include 37.5 points of BCS electives at level 300 or above, and 37.5 points of BE electives, including at least one management subject, and should include MCEN40010 Thermofluids 4 or MCEN40009 Mechanics 4.

Subject	Study Period Commencement:	Credit Points:
MCEN40020 Major Project and Professional Practice	Year Long	25
MCEN40018 Control Systems 2	Semester 1	12.50

BCS Electives

Choose a total of 37.5 points to be taken for the course from the list below: -

ELEN90062 High Speed Electronics (../../view/2011/ELEN90062)

Subject	Study Period Commencement:	Credit Points:
COMP30017 Operating Systems and Network Services	Not offered 2011	12.50
SWEN30006 Software Modelling and Design	Not offered 2011	12.50
COMP30019 Graphics and Interaction	Not offered 2011	12.50
COMP30021 Theoretical Computer Science	Not offered 2011	12.50
COMP30018 Knowledge Technologies	Not offered 2011	12.50
COMP30016 Computer Science Project	Not offered 2011	12.50

BE Electives

Must include MCEN40009 Mechanics 4 or MCEN40010 Thermofluids 4.

ELEN90056 Electronic Circuit Design(Semester 1) (../../view/2011/ELEN90056)

Subject	Study Period Commencement:	Credit Points:
MCEN90009 Dynamics of Machines	Semester 2	12.50
MCEN40024 Solid Mechanics	Semester 2	12.50
MCEN40009 Mechanics 4	Semester 1	12.50
MCEN40010 Thermofluids 4	Semester 1	12.50
MCEN40006 Computational Biomechanics	Not offered 2011	12.50
MCEN40011 Advanced Computational Mechanics	Semester 2	12.50
MCEN40015 Advanced Engineering Materials	Semester 2	12.50
ELEN30011 Electrical Device Modelling	Semester 2	12.50

Management Electives

Choose at least one elective from the list below:

Subject	Study Period Commencement:	Credit Points:
MGMT20001 Organisational Behaviour	Semester 1, Semester 2	12.50

	MGMT20004 Human Resource Management	Semester 1, Semester 2	12.50
	MKTG20008 Strategic Marketing	Semester 2	12.50
	MCEN40002 Optimisation	Not offered 2011	12.50
	MCEN40003 Quality Engineering	Semester 2	12.50
	MCEN90010 Finance & Human Resources for Engineers	Semester 1	12.50
	MGMT30013 Strategic Management	Semester 2	12.50
	MGMT30011 Supply Chain Management	Summer Term, Semester 1	12.50
	MGMT20003 Project Management	Semester 1	12.50
	MKTG20009 Global Marketing	Semester 2	12.50
	MKTG30011 Product Management	Semester 1	12.50
	MKTG10001 Principles of Marketing	Summer Term, Semester 1, Semester 2	12.50

Entry Requirements:	N/A - as there is no entry into the program from 2008.
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unitwebsite: http://www.services.unimelb.edu.au/disability/
Further Study:	None
Graduate Attributes:	An Engineering graduate has a unique skill set comprising a blend of technical, business and interpersonal skills. Upon completion of the Bachelor of Engineering at the University of Melbourne, students will have strong analytical skills, the ability to lead teams and projects and the creativity to look at problems in a way that provides innovative solutions. Our graduates are known for their high standards and professionalism, their understanding of global issues and their outstanding communication skills. For details, see “Objectives”.
Professional Accreditation:	Royal Institute of Chartered Surveyors
Generic Skills:	For details, see “Objectives”.
Links to further information:	None
Notes:	None