

Master of Engineering (Mechanical)

Year and Campus:	2010							
Coordinator:	Associate Professor Andrew Ooi and Dr Michael Brear							
Contact:	Melbourne School of Engineering Office Building 173, Grattan Street The University of Melbourne VIC 3010 Australia General telephone enquiries: + 61 3 8344 6703 + 61 3 8344 6507 Facsimiles: + 61 3 9349 2182 + 61 3 8344 7707 Email: eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au)							
Overview:	Mechanical engineers focus on turning energy into power and motion. More specifically, this specialisation looks at the generation, conversion and use of energy, as well as the design, construction and operation of devices and systems. Students in this course learn from staff with world-leading expertise in fluid mechanics, turbulence, thermodynamics, control and biomechanics, and have the chance to undertake an industry project that is both research and industrially based. Group activities and site visits help to consolidate theoretical knowledge and prepare students to undertake careers in fields from automotive design and manufacturing to software programming and in non-engineering roles in organisations such as banks and consulting firms.							
Objectives:	To produce graduates who are both skilled in mechanical engineering principles and have the ability to apply them to complex, open-ended engineering tasks and problems.							
Structure & Available Subjects:	The Master of Engineering (Mechanical) consists of 300 points of study, typically across six semesters. This includes: <ul style="list-style-type: none"> # 100 points of foundation study tailored to individual students who enter from non-Engineering backgrounds; and # 200 points of mainly engineering discipline specific study at the level of depth required to practice as a professional engineer upon graduation, including a 25-point capstone project completed in the final year of study. From 2011, students entering with appropriate engineering background may be granted up to 150 point of credit. For example, students entering from the University of Melbourne new generation Bachelor of Science with an 'Engineering Systems' major will be granted 100 points of credit for the foundation year. Credit will also be granted to students who have completed a specified breadth sequence in the new generation Bachelor of Commerce or appropriate electives as part of any major in the new generation Bachelor of Science. Students entering from another institution may also be awarded credit in this way. As the Master of Engineering commences in 2010 only the first year of the structure and available subjects are shown. For further information about structures and subjects see: http://www.eng.unimelb.edu.au/Postgrad/MEng/me_mechanical.html (http://www.eng.unimelb.edu.au/Postgrad/MEng/me_mechanical.html)							
Subject Options:	Core and elective requirements in the Master of Engineering (Mechanical) Students must complete 100 credit points (eight subjects) of core subjects in the first year of the Master of Engineering (Mechanical). First year core subjects in the Master of Engineering (Mechanical) for students commencing January (Semester 1) 2010 Students who commence the Master of Engineering (Mechanical) in January (Summer and Semester 1) 2010, must select the following core subjects in the first year of the Master of Engineering (Mechanical) including 436-291 as a Summer subject							
	<table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENGR20004 Engineering Mechanics</td> <td>January, Semester 1, Semester 2</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	ENGR20004 Engineering Mechanics	January, Semester 1, Semester 2	12.50	
Subject	Study Period Commencement:	Credit Points:						
ENGR20004 Engineering Mechanics	January, Semester 1, Semester 2	12.50						

ENGR90021 Engineering Communication	Semester 1, Semester 2	12.50
MCEN30017 Mechanics & Materials	Semester 1	12.50
MCEN30016 Mechanical Dynamics	Semester 1	12.50
MAST20029 Engineering Mathematics	Summer Term, Semester 1, Semester 2	12.50
MCEN30014 Mechanical Design	Semester 2	12.50
ENGR30001 Fluid Mechanics	Semester 1, Semester 2	12.50
COMP20005 Engineering Computation	Semester 1, Semester 2	12.50
ELEN20005 Foundations of Electrical Networks	January, Semester 2	12.50

First year core subjects in the Master of Engineering (Mechanical) for students commencing July (Semester 2) 2010

Students who commence the Master of Engineering (Mechanical) in July (Semester 2) 2010, must select the following core subjects in the first year of the Master of Engineering (Mechanical)

Subject	Study Period Commencement:	Credit Points:
ENGR20004 Engineering Mechanics	January, Semester 1, Semester 2	12.50
ENGR90021 Engineering Communication	Semester 1, Semester 2	12.50
ELEN20005 Foundations of Electrical Networks	January, Semester 2	12.50
COMP20005 Engineering Computation	Semester 1, Semester 2	12.50

Links to further information:

http://www.eng.unimelb.edu.au/Postgrad/MEng/me_mechanical.html

Related Course(s):

Master of Engineering