

Mechanical Systems

Year and Campus:	2010																	
Coordinator:	Associate Professor Andrew Ooi Department of Mechanical Engineering																	
Contact:	a.ooi@unimelb.edu.au (mailto:a.ooi@unimelb.edu.au)																	
Overview:	<p>Students who have undertaken the Mechanical Systems major will be able to rigorously integrate fundamental science in mechanics with engineering principles to solve practical problems involving mechanical systems. Core skills and knowledge that will be developed include: fundamental scientific comprehension that will lead to accurate mathematical modelling of mechanical systems, analytical and abstract thinking, problem-solving and design skills, and the ability to carry out laboratory experiments to confirm possible solutions to complex problems. In all levels of this major, we will ensure the development of excellent communication skills that will enable our graduates to deliver complex scientific information in a clear and concise fashion.</p> <p>The Mechanical Systems major will open up various pathways for students, which will include accredited professional or scientific research careers in mechanical and mechatronics engineering (through further study in the Masters in Engineering (ME) or PhD programs), teaching, management and also careers in the finance industry.</p>																	
Objectives:	.																	
Structure & Available Subjects:	Completion of 50 points of study at third year level																	
Subject Options:	All four of: <table border="1" data-bbox="387 954 1485 1272"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MCEN30014 Mechanical Design</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>MCEN30016 Mechanical Dynamics</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MCEN30017 Mechanics & Materials</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>MCEN30015 Thermofluids</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	MCEN30014 Mechanical Design	Semester 2	12.50	MCEN30016 Mechanical Dynamics	Semester 1	12.50	MCEN30017 Mechanics & Materials	Semester 1	12.50	MCEN30015 Thermofluids	Semester 1	12.50
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Notes:	In addition to these four core subjects, the third year level subject, Differential Equations in Engineering, will also be required in this major for students who have taken Vector Calculus instead of Engineering Mathematics at second year level.																	
Related Course(s):	Bachelor of Science																	