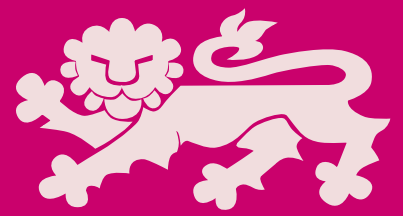


Master of Engineering



Overview

The Master of Engineering (ME) allows candidates either to complete a generalist degree by selecting units of study of their choice from across the fields of chemical, civil, electrical and information and aerospace, mechanical and mechatronic engineering, or to choose a specialisation

Students undertake a specialisation of their choice by completing specified core units and electives. Students will have the opportunity to complete a 6 or 12 credit point project which can in some cases form the basis of a research project leading to advanced research degrees in some schools.

Admission Requirements

- A 4 year Bachelor of Engineering degree performed academically to the satisfaction of the Faculty
- Candidates wishing to specialise the Master of Engineering must have a bachelor's degree with a similar background. For example, for a specialisation in automation and manufacturing systems, you will need to have a bachelor's degree in mechanical engineering with additional presumed knowledge acquired during that degree, to complete the specialisations satisfactorily
- Candidates who do not meet the requirements for the ME will be offered the Graduate Diploma in Engineering, leading to the ME
- Students who receive a distinction average in their Bachelors degree are able to combine the ME with the Master of Philosophy, with the opportunity to upgrade to the PhD.

Course Requirements

Candidates are required to complete:

- A total of 48 credit points
- For the general ME degree, at least 24 credits must be completed from the units of study offered by a single school
- For the ME awarded in a specialist area, core units of study must be completed in accordance with the following tables.

Graduate Diploma in Engineering

This course is designed for candidates wishing to select their own units of study from within the specialisations in chemical engineering, civil engineering, electrical and information and aerospace, mechanical engineering and mechatronics engineering. It is offered as a pathway to the ME for candidates not qualifying for direct entry to the master's degree or can be undertaken as a free standing degree.

Major areas of study:

- Aerospace
- Automation and Manufacturing Systems
- Biophysical Processes
- Environmental
- Environmental Fluids
- Fluids and Winds
- Geotechnical
- Network Engineering
- Power Engineering
- Sustainable Processing
- Structures
- Wireless Engineering

Specialisation Tables

Units of study, and details on core units required for each specialisation are as follows:

School of Aerospace, Mechanical & Mechatronic Engineering

Master of Engineering (Aerospace)	
Core Units	Credit Points
AERO5200: Advanced Aerodynamics	6
AERO5901: Project 1 and Seminar in Aerospace Eng	6
AERO5301: Applied Finite Element Analysis	6
AERO5400: Advanced Aircraft Design Analysis	6
AERO5902: Project 2 and Seminar in Aerospace Eng	6
AERO5500: Flight Mechanics Test and Evaluation Adv	6
Master of Engineering (Automation & Manufacturing Systems)	
Core Units	Credit Points
MECH5720: Sensors and Signals	6
MECH5701: Computers in Real Time Control and Inst	6
AMME5900: Project 1 in Manufacturing & Automation	6
AMME5602: Product Life Cycle Design Advanced	6
AMME5902: Project 2 in Manufacturing & Automation	6

COURSE NAME	COURSE CODE	CRICOS CODE	STUDY LENGTH	START	ENTRY	CREDIT POINTS	MAJORS / SPECIALISATIONS
Master of Engineering (ME)	HC048	061789G	1 Yr Full time 2Yrs Part time	March or July	Bachelor's Degree in Engineering or equivalent	48	May complete generic ME or specialise
Graduate Diploma in Engineering	HF044	061793A	1 Yr Full time 2Yrs Part time	March or July	Bachelor's degree in Engineering or equivalent.	36	May specialise

Specialisation Tables

School of Electrical & Information Engineering

Master of Engineering (Network Engineering)	
Core Units	Credit Points
ELEC5616: Computer and Network Security	6
ELEC5509: Mobile Networks	6
ELEC5512: Optical Networks	6
ELEC5514: Networked Embedded Systems	6
ELEC5508: Wireless Engineering	6
ELEC5614: Real Time Computing	6
Master of Engineering (Wireless Engineering)	
Core Units	Credit Points
ELEC5403: Radio Frequency Engineering	6
ELEC5507: Error Control Coding	6
ELEC5509: Mobile Networks	6
ELEC5508: Wireless Engineering	6
ELEC5510: Satellite Communication Systems	6
ELEC5101: Antennas and Propagation	6
Master of Engineering (Power Engineering)	
Core Units	Credit Points
ELEC5203: Topics in Power Engineering	6
ELEC5204: Power Systems	6
ELEC5205: High Voltage Engineering	6
ELEC5303: Computer Control System Design	6
ELEC5701: Commercial Engineering Practice	6

School of Civil Engineering

Master of Engineering (Structures)	
Core Units	Credit Points
CIVL5262: Structural Steel Connections	6
CIVL5256: Concrete Structures: Serviceability	6
CIVL5263: Stainless Steel and Aluminium Structures	6
CIVL5255: Concrete Structures: Durability	6

Master of Engineering (Geotechnical)	
Core Units	Credit Points
CIVL5452: Foundation Engineering	6
CIVL5457: Geotechnical Investigations	6
CIVL5451: Numerical and Computer Methods	6
CIVL5455: Engineering Behaviour of Soils	6
Master of Engineering (Environmental Fluids)	
Core Units	Credit Points
CIVL5663: Wind Tunnel Test Techniques	6
CIVL5656: The Fluid Environment	6
CIVL5660: Sustainable Ocean Energy Resources	6
CIVL5657: Advanced Coastal Engineering	6

School of Chemical and Biomolecular Engineering

Master of Engineering (Environmental)	
Core Units	Credit Points
CHNG5601: Membrane Science	6
CHNG5603: Analysis, Modelling, Control: BioPhy Sys	6
CHNG5002: Environmental Decision Making	6
CHNG5604: Membrane Science Laboratory	6
CHNG5003: Green Engineering	6
Master of Engineering (Biophysical Processes)	
Core Units	Credit Points
CHNG5601: Membrane Science	6
CHNG5602: Cellular Biophysics	6
CHNG5603: Analysis, Modelling, Control: BioPhySys	6
CHNG5604: Membrane Science Laboratory	6
CHNG5605: Bio-Products: Laboratory to Marketplace	6
Master of Engineering (Sustainable Processessing)	
Core Units	Credit Points
CHNG5002: Environmental Decision Making	6
CHNG5003: Green Engineering	6
CIVL5656: The Fluid Environment	6
CIVL5664: Mixing in the Marine Environment	6
CIVL5665: Advanced Water Resources Management	6

More information

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