

Master of Engineering (Civil)

Year and Campus:	2011
Coordinator:	Associate Professor Nelson Lamntkl@unimelb.edu.au
Contact:	Melbourne School of Engineering Current Students: courseinfo@eng.unimelb.edu.au (mailto:courseinfo@eng.unimelb.edu.au) Prospective Students: Visit http://www.eng.unimelb.edu.au/Postgrad/MEng/me_civil.html (http://www.eng.unimelb.edu.au/Postgrad/MEng/me_civil.html)
Overview:	Civil engineers design and create many different kinds of infrastructure to support our society. This specialisation offers considerable scope, with students gaining knowledge of and it is the objective of this course that graduates have acquired a sound fundamental understanding of the scientific principles underlying a number of sub-disciplines including sustainability, environmental processes, structural engineering, geo-technical and hydraulic engineering, transport, and project management. Great emphasis is also placed on the development of generic skills with management, communication, problem-solving and design and innovation in civil engineering. Interaction with industry professionals is available through guest lectures, field and project work. Career opportunities abound in government, construction, property, infrastructure, consulting, mining, land, water, and waste.
Objectives:	To produce graduates who have acquired the educational and professional standards of Engineers Australia with which the course is accredited, and are both skilled in civil engineering principles and have the ability to apply them to complex, open-ended engineering tasks and problems.
Structure & Available Subjects:	The Master of Engineering (Civil) consists of 300 points of study - 250 points core and 50 points elective subjects as detailed below. Advanced standing will be awarded for equivalent subjects taken in prior study to applicants on the following basis: <ul style="list-style-type: none"> # a maximum of 150 points for applicants with a 4 year Bachelor of Engineering or equivalent. # a maximum of 100 points for applicants with a 3 year undergraduate degree. Students entering with a three year bachelor degree must complete at least 200 points of study within the Masters of Engineering. In cases where applicants have completed the equivalent of more than 100 points of core masters subjects, discipline specific electives must be taken to fulfill the 200 minimum masters study requirement. Note: applicants from the University of Melbourne with: <ul style="list-style-type: none"> # An appropriate "Engineering System" major will receive 100 points of advanced standing. Applicants who have completed more than 100 points of core subjects in their undergraduate degree will obtain exemption for the cores taken but will need to replace the points in excess of 100 points with elective subjects. # Engineering breadth sequences (including those in the Bachelor of Commerce) will receive advanced standing to a maximum of 100 points.
Subject Options:	Total 300 points - 250 points core (compulsory) and 50 points elective subjects from the lists below. Students must complete all 300 points of subjects, including all core subjects, or have advanced standing or exemption. The core and elective subjects are those listed below. The order of subjects below is one way of progressing through the course - students who meet subject requisites may tailor their individual study plan to take into account advanced standing and their preferred study load. Students plan their study on-line, however Melbourne School of Engineering course advisors are available to assist students with individual study plans. Suggested first 100 points: Suggested study plan for the first 100 points: <ul style="list-style-type: none"> # 100 points Core Core (Total 100 points)

Subject	Study Period Commencement:	Credit Points:
ENGR20004 Engineering Mechanics	January, Semester 1, Semester 2	12.50
MAST20029 Engineering Mathematics	Summer Term, Semester 1, Semester 2	12.50
ENGR30001 Fluid Mechanics & Thermodynamics	Semester 1, Semester 2	12.50
ENGR90021 Engineering Communication	Semester 1, Semester 2	12.50
ENEN20002 Earth Processes for Engineering	Not offered 2011	12.50
ENGR20003 Engineering Materials	Not offered 2011	12.50
CVEN30010 Systems Modelling and Design	Not offered 2011	12.50
CVEN30009 Structural Theory and Design	Not offered 2011	12.50

Suggested second 100 points:

Suggested study plan for the second 100 points:

- # 87.5 points Core
- # 12.5 points Civil Engineering Elective from the list below

Core (Total 87.5 points)

Subject	Study Period Commencement:	Credit Points:
CVEN90050 Geotechnical Engineering	Not offered 2011	12.50
CVEN90043 Sustainable Infrastructure Systems	Not offered 2011	12.50
CVEN90044 Engineering Site Characterisation	Not offered 2011	12.50
CVEN90049 Structural Theory and Design 2	Not offered 2011	12.50
CVEN90045 Engineering Project Implementation	Not offered 2011	12.50
CVEN90051 Civil Hydraulics	Not offered 2011	12.50
CVEN40011 Transport Systems	Semester 2	12.50

Suggested third 100 points:

Suggested study plan for the third 100 points:

- # 62.5 points Core
- # 37.5 points Civil Engineering Elective from the list below

Core (Total 62.5 points)

Subject	Study Period Commencement:	Credit Points:
CVEN90052 Integrated Design	Not offered 2011	25
CVEN90047 Research Project	Not offered 2011	25
CVEN30008 Risk Analysis	Not offered 2011	12.50

Civil Engineering Electives

Total 50 points

Subject	Study Period Commencement:	Credit Points:
ENEN90033 Solar Energy	Not offered 2011	12.50

	ENEN90029 Water and Waste Water Management	Not offered 2011	12.50
	ENEN90006 Solid Wastes to Sustainable Resources	Not offered 2011	12.50
	ENEN90027 Energy for Sustainable Development	Not offered 2011	12.50
	ENGM90007 Project Management Practices	Not offered 2011	12.50
	CVEN90017 Earthquake Resistant Design of Buildings	Not offered 2011	12.50
	CVEN90024 High Rise Structures	Not offered 2011	12.50
	CVEN90026 Extreme Loading of Structures	Not offered 2011	12.50
	CVEN90053 Transport Engineering	Not offered 2011	12.50
	CVEN90019 Sustainable Water Resources Systems	Not offered 2011	12.50
	ENEN90011 Energy Efficiency Technology	Not offered 2011	12.50
	ENEN90030 Contaminant Hydrogeology	Not offered 2011	12.50
	ENEN90005 Environmental Management ISO 14000	Not offered 2011	12.50
	ENGM90006 Engineering Contracts and Procurement	Not offered 2011	12.50
	CVEN90018 Structural Dynamics and Modelling	Not offered 2011	12.50
	CVEN90054 Advanced Civil Hydraulics	Not offered 2011	12.50
	CVEN90016 Concrete Design and Technology	Not offered 2011	12.50
	CVEN90035 Design in Steel & Other Materials	Not offered 2011	12.50
	CVEN90055 Advanced Structural Analysis	Not offered 2011	12.50
	ENGR90026 Engineering Entrepreneurship	Semester 2	12.50
Links to further information:	http://www.eng.unimelb.edu.au/Postgrad/MEng/me_civil.html		
Related Course(s):	Master of Engineering		