Master of Engineering (Civil)

Year and Campus:	2013
Coordinator:	Associate Professor Nelson Lamntkl@unimelb.edu.au
Contact:	Melbourne School of Engineering Ground Floor,Old Engineering (Building 173) Current students: Email: **13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)** Phone: 13MELB (13 6352) +61 3 9035 5511 Prospective students: Email: **eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au)** Phone: +61 3 8344 6944 Visit **Master of Engineering (Civil) (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. 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: # A maximum of 100 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: # 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 - consisiting of 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:

100 points Core

NB *ENGR30002 Fluid Mechanics* replaced *ENGR30001 Fluid Mechanics & Thermodynamics* in 2013. Students who have completed ENGR30001 are not required to undertake ENGR30002

Core (Total 100 points)

Subject	Study Period Commencement:	Credit Points:
ENGR20004 Engineering Mechanics	Not offered 2013	12.50
ENGR30002 Fluid Mechanics	Not offered 2013	12.50
ENGR90021 Engineering Communication	Not offered 2013	12.50
MAST20029 Engineering Mathematics	Not offered 2013	12.50
ENEN20002 Earth Processes for Engineering	Not offered 2013	12.50
ENGR20003 Engineering Materials	Not offered 2013	12.50
CVEN30009 Structural Theory and Design	Not offered 2013	12.50
CVEN30010 Systems Modelling and Design	Not offered 2013	12.50

Suggested 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:
CVEN90043 Sustainable Infrastructure Engineering	Not offered 2013	12.50
CVEN90044 Engineering Site Characterisation	Not offered 2013	12.50
CVEN90049 Structural Theory and Design 2	Not offered 2013	12.50
CVEN90050 Geotechnical Engineering	Not offered 2013	12.50
CVEN90045 Engineering Project Implementation	Not offered 2013	12.50
CVEN90048 Transport Systems	Not offered 2013	12.50
CVEN90051 Civil Hydraulics	Not offered 2013	12.50

Suggested third 100 points:

37.5 points Core
25 points from the Research Component (core) listed below
37.5 points from the Civil Engineering Electives listed below

Core (Total 37.5 points)

Subject	Study Period Commencement:	Credit Points:
CVEN90052 Integrated Design	Not offered 2013	25
CVEN30008 Risk Analysis	Not offered 2013	12.50

Research Component (Total 25 points)

Students must choose only ONE of the subjects listed below:

NB: CVEN90022 IE Research Project 1 is of year-long duration. Students may commence in either semester 1 or semester 2 and continue in the consecutive semester.

CVEN90047 IE Research Project 2 is completed over one semester only.

Subject	Study Period Commencement:	Credit Points:
CVEN90022 IE Research Project 1	Semester 1	12.50
CVEN90047 IE Research Project 2	Not offered 2013	25

Civil Engineering Electives

(Total 50 points)

Subject	Study Period Commencement:	Credit Points:
CVEN90017 Earthquake Resistant Design of Buildings	Not offered 2013	12.50
CVEN90024 High Rise Structures	Not offered 2013	12.50
CVEN90026 Extreme Loading of Structures	Not offered 2013	12.50
ENEN90006 Solid Wastes to Sustainable Resources	Not offered 2013	12.50
ENEN90027 Energy for Sustainable Development	Not offered 2013	12.50
ENEN90029 Water and Waste Water Management	Semester 1	12.50
ENEN90033 Solar Energy	Not offered 2013	12.50
ENEN90034 Environmental Applied Hydrology	Not offered 2013	12.50
ENGM90007 Project Management Practices	Not offered 2013	12.50
CVEN90016 Concrete Design and Technology	Not offered 2013	12.50
CVEN90018 Structural Dynamics and Modelling	Semester 2	12.50
CVEN90019 Sustainable Water Resources Systems	Not offered 2013	12.50
CVEN90027 Geotechnical Applications	Not offered 2013	12.50
CVEN90035 Structural Theory and Design 3	Not offered 2013	12.50
ENEN90005 Environmental Management ISO 14000	Not offered 2013	12.50
ENEN90011 Energy Efficiency Technology	Not offered 2013	12.50
ENEN90030 Contaminant Hydrogeology	Not offered 2013	12.50
ENGM90006 Engineering Contracts and Procurement	Not offered 2013	12.50
ENGR90026 Engineering Entrepreneurship	Not offered 2013	12.50
GEOM90033 Satellite Positioning Systems	Not offered 2013	12.50
ENEN90014 Sustainable Buildings	Not offered 2013	12.50

Links to further information:	http://www.eng.unimelb.edu.au/Postgrad/MEng/me_civil.html
Related Course(s):	Master of Engineering