

COURSE DELIVERY PLAN 2022

Master of Engineering

COURSE CODE: NMEN

CAMPUS	Footscray Park (FP)
COLLEGE	College of Engineering and Science
STUDY MODE	Full Time or Part Time
DURATION	2 years Full Time or Part Time equivalent
FEE TYPE	For information on course fees, refer to http://vu.edu.au/fees
APPLICATION METHOD	Direct Application - https://gotovu.custhelp.com/app/landing
TIMETABLE	2022 Timetables - vu.edu.au/timetables
COURSE REQUIREMENTS	To be eligible for the Master of Engineering, students are required to complete 192 credit points in total, consisting of: <ul style="list-style-type: none">• 48 credit points of Common Interdisciplinary studies;• 48 credit points of Research studies;• 96 credit points of Core Specialisation studies.
FURTHER INFORMATION	Unit and course information is available from the University course search site at http://vu.edu.au/course-search or go to https://askvu.vu.edu.au or Phone VUHQ on 03 9919 6100
COURSE CHAIR	Horace King Rudi Van Staden
COURSE ADVICE	ASK YOUR CUA - https://askvu.vu.edu.au/app/askcua

Note: Students are required to enrol in all units for semester 1 and 2, and are not permitted to enrol in more than 48 credit points per semester as a full-time load.

Core/Elective Core (a unit that must be completed) & Elective (you have some choice in what you select).

Prerequisites A number of units within the degree have 'prerequisites'. These prerequisites must be met before enrolment in the unit is permitted. Generally these prerequisites require the successful completion of a unit or units taken at an earlier stage in the course. Students should pay particular attention to these prerequisite requirements as failure to meet these can seriously hinder progression through the course.

Unit Availability

Please refer to [2022 Timetable](https://vu.edu.au/timetables) for unit availability.

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VU is working to ensure that the achievements and adaptability of students and staff are reflected in our ongoing delivery modes for the future.

VICTORIA UNIVERSITY DELIVERY

These delivery modes are:

- **In person:** Your unit or classes will be delivered on the campus you have enrolled in. The timetable will display “On Campus” and provide the room where the classes will be held and you will physically attend those classes. All learning activity delivered on campus will continue to be run under strict COVID-19 safe practices.*
- **Online real-time:** Your unit or classes will be delivered online using Zoom. The timetable will display “Online Real Time (ZOOM)” and you will attend scheduled classes remotely through Zoom classrooms.
- **Online self-paced:** You will participate in learning activities online over that period but not at a set time. You will be able to conduct these activities at a time that suits you, providing those activities are completed by the required time. Your timetable will display “Online Self-Paced”.
- **Hybrid:** Part of your unit will be delivered in person on the campus you have enrolled in, with the remainder delivered in an online mode. The timetable will state which classes or activities in the unit will be delivered on campus and which classes or activities will be online, in either real-time or self-paced mode.

Your unit will show whether it is delivered wholly online real-time, online self-paced or in person. If your unit is delivered in hybrid mode, each class within the unit will show whether it is delivered in person or online. Please be sure to check all the individual classes in your unit.

CC/CT – City Tower
FP – Footscray Park
FN – Footscray Nicholson
ORT – Online Real Time (Zoom)
OSP – Online Self-Paced
REM – Remote (Zoom)
HY – Hybrid
IP – In Person

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YEAR 1

UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
Common Interdisciplinary studies						
EPM5600	Principles of Project Management	Other	8WB1	12	ORT	
EPM5610	Project Planning and Control	Other	8WB3	12	ORT	
EPM5630	Project Management and People	Other	8WB3	12	FP	
EPM5730	Project Stakeholder Management	Other	?	12	FP	
EPM5740	Project Risk Management	Other	?	12	FP	
NIT5081	Fundamentals of Cyber Security	Other	?	12	CC , ORT	
			8WB1		FP	
NIT5082	Cloud Security	Other	8WB3	12	CC , FP	
			8WB1		ORT	
NIT5110	Networking Systems	Other	8WB2	12	CC , FP	
			?		ORT	
NIT5130	Database Analysis and Design	Other	8WB2	12	CC , FP	
			?		ORT	
NIT5150	Advanced Object Oriented Programming	Other	8WB2, 8WB3	12	CC	
			8WB3		FP	
BMO6511	Strategic Management and Business Policy	Other	8WB4	12	CC	
			?		CF	
BMO6506	Work and Organisation Systems	Other	8WB2, 8WB3, 8WB4, 8WB5	12	CC	
			?		CF	
BMO6050	Art and Practice of Leadership	Other	8WB4	12	CC	
Research studies						
NEF6101	Research Thesis 1	Core	2	24	CC	
			1, 2		FP	
			?		ORT	
NEF6102	Research Thesis 2	Core	2	24	CC	NEF6101

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1, 2

FP

?

ORT

YEAR 2

Core Specialisation studies

Electrical Power NSPELE

The Master of Engineering specialisation in Electrical Power comprises coursework, design exercises and research projects designed to enable students to acquire specialised skills and expertise in the field of Power Systems, specifically catering for the contemporary Smart electricity system. Making the electricity grid Smart compliant is a global priority. Upgrading electricity grids to 21st century standards requires incorporating power engineering with the latest digital communications systems and information technology areas (including sensors, electronics, controls and wireless devices). The course will enhance students' academic experience through work-related learning. Active learning, strong contextualisation and industry relevance characterise the design, development and delivery of resources and course materials.

UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
NNM6001	Electrical Power Systems, Analysis and Operation	Specialisation	8WB3	12	FP	
NNM6002	Electric Energy Systems Protection and Communication	Specialisation	8WB1	12	FP	
NNM6003	Overhead and Underground Power Line Design	Specialisation	?	12	FP	
NNM6005	Alternate Energy Systems	Specialisation	?	12	FP	
NNM7002	Transient Analysis, Stability and Surge Protection	Specialisation	8WB4	12	FP	
NNM7005	Power Quality and Harmonics	Specialisation	8WB1	12	FP	
NNM7006	Insulation Co-Ordination and Sub-Station Design Principles	Specialisation	8WB2	12	FP	
NNM7007	National Electricity Market and Regulation Principles	Specialisation	8WB4	12	FP	

Telecommunication NSPTL

The Master of Engineering Telecommunications specialisation is supported by coursework, design exercises and research projects designed to enable the development of specialised skills and expertise in the telecommunications field, specifically wireless and network engineering. Graduates will meet employment demand in the telecommunications industry within Australia and overseas. Particular emphasis on wireless and networking within the course will provide job opportunities in the areas of mobile broadband and fibre to the premises - the current growth drivers of the global telecommunications industry. Students in this specialisation will benefit from the College's strong research outputs, capabilities and facilities which were major contributors to the Australian Research Council's 2018 (Excellence in Research Australia) ERA=5 (well above world standard) ranking in electrical engineering and contributed to the Engagement and Impact Outcomes rating of HIGH for Engineering impact.

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UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
NIT5110	Networking Systems	Specialisation	8WB2	12	CC , FP	
			?		ORT	
NIT6120	Mobile Applications	Specialisation	8WB2	12	CC , FP	
			?		ORT	
NNT6501	Advanced Communication System Design 1	Specialisation	8WB1	12	FP	
NNT6502	Advanced Communication System Design 2	Specialisation	8WB1	12	FP	
NNT6510	Communication Theory	Specialisation	?	12	FP	
NNT6531	Radio Frequency Engineering	Specialisation	?	12	FP	
NNT6532	Satellite Network Design	Specialisation	?	12	FP	
NNT6542	Mobile Network Design	Specialisation	?	12	FP	

Civil Engineering NSPCIV

This Masters builds upon the highly successful and industry renowned Bachelor of Engineering (Civil Engineering, Honours), NHEC. Full-time employment in NHEC (and EBDC) is 87% (GOS 2019) which is well above the national average of 82.4% for undergraduate Engineering degrees according to GOS 2019 data. The Masters in Civil Engineering will further fulfil the growing demand for professionals with advanced knowledge, problem solving skills and research ability in Civil Engineering. This Masters will be technical in nature and will be aimed at enhancing students' ability to gain employment in both the private and public sector in positions of planning, designing, constructing and management of essential community infrastructure. Graduates will have a wide range of career opportunities in a variety of organisations including: construction companies, transportation authorities and organisations, water utility providers, mining, as well as defence, local councils and other government departments.

UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
NNC6001	Advanced Transportation Engineering	Specialisation	8WB1	12	FP	
NNC6002	Sustainable Design and Development	Specialisation	8WB3	12	FP	
NNC7001	Advanced Structures	Specialisation	8WB4	12	FP	
NNC7002	Sustainable Design of Major Civil Engineering Infrastructure	Specialisation	8WB4	12	FP	
NNC7003	Advanced Materials and Asset Management of Infrastructure	Specialisation	8WB3	12	FP	
NNC7004	Integrated Urban Water Management	Specialisation	8WB2	12	FP	