

COURSE DELIVERY PLAN 2023

Bachelor of Engineering (Honours) (Mechanical Engineering)

COURSE CODE: NHEM

CAMPUS	Footscray Park (FP)
COLLEGE	College of Engineering and Science
STUDY MODE	Full Time or Part Time
DURATION	4 years Full Time or Part Time equivalent
FEE TYPE	For information on course fees, refer to http://vu.edu.au/fees
APPLICATION METHOD	VTAC - https://vtac.edu.au Direct Application - https://gotovu.custhelp.com/app/landing
TIMETABLE	vu.edu.au/timetables
COURSE REQUIREMENTS	<p>To attain the Bachelor of Engineering (Honours) (Mechanical Engineering), students will be required to complete 384 credit points, consisting of:</p> <ul style="list-style-type: none">• 96 credit points of First Year Core studies;• 288 credit points of Core Mechanical Engineering studies. <p>Students are required to produce documented evidence of the completion of 12 weeks professional experience.</p> <p>Accreditation: This program is accredited by Engineers Australia and graduates are eligible to apply for graduate membership.</p> <p>First Class Honours: To be eligible for completion with First Class Honours, students must achieve:</p> <ul style="list-style-type: none">• A minimum weighted average of 60% over year levels 1 to 3;• A minimum weighted average of 80% in year level 4;• An average HD grade for the final year units, NEF4101 Research Project 1 and NEF4201 Research Project 2
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	Vincent Rouillard
COURSE ADVICE	AskVU 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.

Date of Publication: This information is current at the publication date: 12/07/2023. It is provided as information only and does not form part of a contract between any person and Victoria University.



COURSE DELIVERY PLAN 2023

YEAR 1

UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
NEF1103	Engineering and the Community	Core	1B1	12	FP	
NEF1105	Mathematics for Engineering and Science	Core	1B2	12	FP	
NEF1102	Engineering Physics 1	Core	1B3	12	FP	
NEF1104	Problem Solving for Engineers	Core	1B4	12	FP	
NEF1201	Engineering Mathematics 2	Core	2B1	12	FP	NEF1105
NEF1204	Introduction to Engineering Design	Core	2B2	12	FP	
NEF1202	Engineering Physics 2	Core	2B3	12	FP	NEF1102
NEF1205	Engineering Fundamentals	Core	2B4	12	FP	

Students commencing in **Semester 2, Block 1 – 2B1 2023**, please enrol as per below:

2B1 – NEF1103
2B2 – NEF1105
2B3 – NEF1102
2B4 – NEF1204

In **Semester 1, 2024** you will enrol as per below:

1B1 – NEF1201 – needs the completion of NEF1105
1B2 – NEF1202 – needs the completion of NEF1102
1B3 – NEF1104
1B4 – NEF1205

Students commencing in **Semester 2, Block 3 – 2B3 2023**, please enrol as per below:

2B3 – NEF1104
2B4 – NEF1102

In **Semester 1, 2024** you will enrol as per below:

1B1 – NEF1105
1B2 – NEF1202
1B3 – NEF1204
1B4 – NEF1205

Students must adhere to these sequence patterns when enrolling units.



COURSE DELIVERY PLAN 2023

YEAR 2

UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
NEC2102	Solid Mechanics	Core	1B1	12	FP	NEF1102, NEF1205, NEM1001
NEF2101	Fluid Mechanics 1	Core	1B2	12	FP	NEM1001
NEM2102	Introduction to Engineering Materials	Core	1B3	12	FP	
NEM2101	Mechanical Engineering Design	Core	1B4	12	FP	NEF1204, NEF1205, NEC2102
NEM2104	Numerical Modelling of Mechanical Systems	Core	2B1	12	FP	NEF1201, NEF1104, NEF1205
NEF2251	Fundamentals of Electrical and Electronic Engineering	Core	2B2	12	FP	NEF1205
NEM2202	Dynamics	Core	2B3	12	FP	NEF1202, NEM1001
NEM2201	Thermodynamics 1	Core	2B4	12	FP	NEF1202

Students must adhere to these sequence patterns when enrolling units.

YEAR 3

UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
NEM3203	Stress Analysis	Core	1B1	12	FP	NEC2102, NEM2101
NEM3101	Engineering Analysis and Modelling	Core	1B2	12	FP	NEM2104
NEM3103	Thermodynamics 2	Core	1B3	12	FP	NEM2201
NEF3101	Project Management	Core	1B4	12	FP	
NEM3102	Design of Mechanical Systems	Core	2B1	12	FP	NEM2101, NEM3203
NEF3202	Research Methods	Core	2B2	12	FP	
NEM3201	Manufacturing Materials	Core	2B3	12	FP	NEM2102
NEM3202	Fluid Mechanics 2	Core	2B4	12	FP	NEF2101



COURSE DELIVERY PLAN 2023

YEAR 4

UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
NEF4105	Professional Engineering Practice	Core	1B1	12	FP	
NEF4001	Computational Heat and Fluid Flows	Core	1B2	12	FP	NEF1201; and NEF1202; and
NEM4101	Mechanical Vibrations	Core	1B3	12	FP	NEM3101
NEF4101	Research Project 1	Core	1B4	12	FP	NEF3202
NEF4206	Advanced Engineering Design	Core	WB1	12	FP	
NEF4205	Sustainable Energy Systems	Core	2B2	12	FP	
NEM4202	Advanced Engineering Analysis	Core	2B3	12	FP	NEM3101
NEF4201	Research Project 2	Core	2B4	12	FP	NEF4101

Students must adhere to these sequence patterns when enrolling units.

Minor:

Modelling and Simulation NMIMSM

In engineering, the design and development of new mechanical devices, systems and processes, modelling and simulation is becoming increasingly important. This exploits the combining of the various principles that underpin Mechanical Engineering into powerful engineering development and design tools using multi-physics. The minor reinforces the already existing theme of Modelling and Simulation and will ensure that students have information at the leading edge of industry practice and innovation while providing graduates with a significant level of future-proofing for their careers.

UNIT CODE	UNIT TITLE	UNIT TYPE	SEM	CREDIT POINTS	CAMPUS	PRE-REQUISITES
NEM2104	Numerical Modelling of Mechanical Systems	Minor	2B1	12	FP	NEF1201, NEF1104, NEF1205
NEM3101	Engineering Analysis and Modelling	Minor	1B2	12	FP	NEM2104
NEM4102	Finite Element Analysis	Minor	?	12	FP	
NEM4202	Advanced Engineering Analysis	Minor	2B3	12	FP	NEM3101

