PROGRAM PLAN

MASTER OF PROFESSIONAL ENGINEERING (MECHANICAL)

PROGRAM OPTION:
PATHWAY C (80 units)

START DATE:
Semester 1 & 2 2019 - 2021

LOCATION:
Callaghan

This program plan is an enrolment guide to ensure you are on track to graduate. If at any time you wish to vary from this program plan seek advice from your Academic Program Advisor to ensure you remain on track.

PROGRAM HANDBOOK
COURSE HANDBOOK

NAME:

STUDENT NO.:

COURSE STATUS KEY
C = Completed
En = Enrolled
NS = Not Started

NOTE: Students who completed a University of Newcastle Bachelor of Mechanical Engineering (Honours) (single or combined) will complete **MECH6840 MPE Thesis (10 units) and 20 units of Directed courses** in lieu of MECH6840A MPE Thesis A and MECH6840B MPE Thesis B. This **alternate pathway** (see page 2) comprises of 80 units, of which 40 units are core courses, 30 units are directed courses, and 10 units are elective courses. Students wishing to undertake the 30 unit thesis project (MECH6840A and MECH6840B) should contact their Program Convenor prior to enrolment to seek approval and ensure that they are on track with their enrolment.

Pathway C

COMMENCING IN SEMESTER 1 - Graduates of a degree other than UoN B Mechanical Engineering (Honours)

YEAR 1	SEMESTER 1	**MECH6110** Mechanical Design Project **CORE**	**MECH6410** Advanced Mechanics of Solids and FEA **CORE**	**DIRECTED** *Please note, this can be studied in any term*	**MECH6840A** MPE Thesis A: Experimental Methods **CORE**
	SEMESTER 2	**MECH6480** Advanced Fluid Mechanics & CFD **CORE**	**ELECTIVE** *This can be taken in any term, including summer or winter*	**MECH6840B** MPE Thesis B (20 units) **CORE** This course ***must*** be taken in the semester immediately following MECH6840A	

COMMENCING IN SEMESTER 2 - Graduates of a degree other than UoN B Mechanical Engineering (Honours)

YEAR 1	SEMESTER 2	**MECH6480** Advanced Fluid Mechanics & CFD **CORE**	**DIRECTED** *Please note, this can be studied in any term*	**MECH6840A** MPE Thesis A: Experimental Methods **CORE**	**ELECTIVE** *This can be taken in any term, including summer or winter*
YEAR 2	SEMESTER 1	**MECH6110** Mechanical Design Project **CORE**	**MECH6410** Advanced Mechanics of Solids & FEA **CORE**	**MECH6840B** MPE Thesis B (20 units) **CORE** This course ***must*** be taken in the semester immediately following MECH6840A	

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Pathway C – Alternate: For students who completed a University of Newcastle Bachelor of Mechanical Engineering (Honours) (single or combined).

COMMENCING IN SEMESTER 1 - Graduates of UoN B Mechanical Engineering (Honours)

YEAR 1	SEMESTER 1	**MECH6110** Mechanical Design Project **CORE**	**MECH6410** Advanced Mechanics of Solids and FEA **CORE**	**DIRECTED** *Please note, this can be studied in any term*	**MECH6840** MPE Thesis **CORE**
	SEMESTER 2	**MECH6480** Advanced Fluid Mechanics & CFD **CORE**	**DIRECTED** *Please note, this can be studied in any term*	**DIRECTED** *Please note, this can be studied in any term*	**ELECTIVE** *This can be taken in any term, including summer or winter*

COMMENCING IN SEMESTER 2 - Graduates of UoN B Mechanical Engineering (Honours)

YEAR 1	SEMESTER 2	**MECH6480** Advanced Fluid Mechanics & CFD **CORE**	**DIRECTED** *Please note, this can be studied in any term*	**DIRECTED** *Please note, this can be studied in any term*	**ELECTIVE** *This can be taken in any term, including summer or winter*
YEAR 2	SEMESTER 1	**MECH6110** Mechanical Design Project **CORE**	**MECH6410** Advanced Mechanics of Solids & FEA **CORE**	**DIRECTED** *Please note, this can be studied in any term*	**MECH6840** MPE Thesis **CORE**

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Pathway C Directed Courses List
Please see the program handbook for the most up-to-date information.

- **Pathway C:** complete **10 units** from the Directed Course List below.
- **Pathway C - Alternate:** complete **30 units** from the Directed List below.

MECH6130 Mechanics of Bulk Solids and Particulates
MECH6200 Computer Aided Engineering and Manufacturing
MECH6250 Bulk Materials Handling and Transportation
MECH6760 Renewable Energy Conversion
MATS6001 Fundamentals of Materials Synthesis and Processing
MATS6002 Materials Characterisation Techniques
ARBE6402 Project Scheduling, Resource Management and Leadership
STAT6100 Systems Thinking for an Integrated Workforce
GSBS6200 Financial and Management Accounting

Removed from the Program in 2021
If you have not already completed these courses prior to 2021 then you choose a different Directed course in the above list.
MCHA6100 Advanced Estimation
MCHA6300 Real-time Optimisation for Embedded Systems
MCHA6500 Mechatronics Design

To be eligible to graduate make sure you have completed 80 units (10 units = 1 course unless otherwise specified) which meet the following criteria:

- **Graduates of a degree other than UoN B Mechanical Engineering (Honours)**
  - Core courses – 60 units
  - Directed courses – 10 units
  - Electives – 10 units. Visit the Course Handbook for more information. This elective **must** be at the 6000 level.
- **Graduates of UoN B Mechanical Engineering (Honours)**
  - Core courses – 40 units
  - Directed courses – 30 units
  - Electives – 10 units. Visit the Course Handbook for more information. This elective **must** be at the 6000 level.
- **Important note for international students:** International students must be enrolled full time. The above enrolment pattern complies with the conditions of international student visas. Failing to follow this enrolment advice may result in international students not being able to graduate within the period of their Confirmation of Enrolment (CoE). Students who have questions about their enrolment should contact the Academic Program Advisor.
- The duration of this program is 3 years full time (40 units per semester) or part time equivalent.
- The maximum time to complete this program is 8 years.