Bachelor of Engineering (Honours) (Mechatronics)

Commenced in 2015 and 2016 — Studying at Callaghan

This program plan is an enrolment guide to ensure you are on track to graduate. Details on the teach-out arrangements can be found in your program handbook. If at any time you wish to vary from this program plan seek prior advice from your Academic Program Advisor to ensure you remain on track.

	Semester 1				Semester 2			
Year 1	**ENGG1003** Introduction to Procedural Programming *Replaced GENG1003*	**ENGG1500** Introduction to Professional Engineering *Replaced GENG1803*	**MATH1110** Mathematics for Engineering, Science and Technology 1 *Replaces option of MATH1110 OR MATH1210*	**PHYS1205**** Fundamentals of Engineering Physics *or* **PHYS1210** Advanced Physics I	**CIVL1100** Fundamentals of Engineering Mechanics *Replaced GENG1001*	**ELEC1310** Introduction to Electrical Engineering *Replaced ELEC1300*	**MATH1120** Mathematics for Engineering, Science and Technology 2 *Replaces option of MATH1120 OR MATH1220*	**MECH1110** Introduction to Mechanical Engineering Design *Replaced GENG1000* *In 2021 changed from Sem 2 to Sem 1*
Year 2	**ELEC2320** Introduction to Mechanical Engineering Design	**ELECTIVE** *This can be studied in any term, including summer or winter* *Replaced ELEC2700*	**MATH2310** Calculus of Science and Engineering	**MECH2360** Dynamics of Machines *Replaced MECH2350*	**ELEC1710** Digital and Computer Electronics 1 *Replaced ELEC1700*	**ENGG2300** Engineering Fluid Mechanics *From 2021 onwards: Replaced MECH2710* *Prior to 2021, MECH2710 Replaced MECH2700*	**ENGG2440** Modelling and Control *Replaced MCHA2000*	**MECH2430** Mechanics of Solids 1 *Replaced MECH2420*
Year 3	**AERO3600** Embedded Control Systems *From 2020 onwards Replaced ENGG3440* *In 2018-2019, ENGG3440 Replaced ELEC4400*	**ELECTIVE** *This can be studied in any term, including summer or winter*	**MCHA3400** Embedded Systems Engineering *Replaced ELEC3730*	**MECH2110** Mechanical Engineering Design 1	**ELEC3240** Analog Electronics	**ENGG4440** Nonlinear Control and Estimation *Replaced ELEC4410*	**MCHA3500** Mechatronics Design 1 *Replaced MCHA3000*	**MECH2450** Engineering Computations 2
Year 4	**ENGG3500** Managing Engineering Projects *Replaced GENG3830*	**MCHA4100*** Mechatronic System (20 units) *In 2019, MCHA4000 Replaced MCHA3900* ** Please refer to the transition document for more information.*	**MECH4410** Mechanics of Solids 2 and FEA *Replaced MECH4400*	**ENGG4801A^** Engineering Final Project A	**ENGG4500** Engineering Complexity *Replaced PHIL3910/PHIL3930*	**ENGG4801B^** Engineering Final Project B	**ELECTIVE** *This can be studied in any term, including summer or winter*	

Program Plan Key: = Core = Elective

* Prior to 2021 students were required to complete MCHA4000 (10 units) **PLUS** MECH4841A / MECH4841B OR ELEC4840A /ELEC4840B (30 units total). From 2021, students will be required to follow the new arrangement: MCHA4100 (20 units) **PLUS** ENGG4801A / ENGG4801B (20 units total).

REFER TO THE TRANSITION DOCUMENT *IN THE* PROGRAM HANDBOOK FOR MORE INFORMATION.

Students who have already completed 310 units towards their program and who have not yet completed MCHA4000 will be required to contact their Program Convenor.

To be eligible to graduate make sure you have completed 320 units (10 units = 1 course unless otherwise specified) which meet the following criteria:

- ✓ Core units – 290 units.

  Prior to 2021, students choose to complete either MATH1110 and MATH1120, *OR* MATH1210 and MATH1220. Choice of maths courses is based on your assumed knowledge. To find out which MATH course you should enrol in please see the Enrolling in Maths information. More information in your Program Handbook. Note that due to course offerings it is recommended midyear commencing students take MATH1110 and MATH1120, and that you also consider the University's Summer School offerings following your first semester.

  After 2021, the option to do MATH1210 and MATH1220 has been removed from the program. *From 2021 onwards*: 1) if you have not yet completed MATH1210 you must complete MATH1110; and 2) if you haven't completed MATH1220 then you must complete MATH1120.

  ** PHYS courses. PHYS1210 can only be undertaken with Program Convenor approval.

  ^ MECH4841B/ELEC4840B **must** be completed in the semester immediately following MECH4841A/ELEC4840A.

- ✓ Electives – 30 units. Please note if you have completed ELEC2700 you will only complete 20 units of electives. Visit the Course Handbook to see a list of available electives.
- ✓ It is also a requirement that students complete a total of 12 weeks of industrial experience.
- ✓ The duration of this program is 4 years fulltime study (40 units per semester) or part time equivalent.
- ✓ The maximum time to complete this program is 10 years.

Some courses have assumed knowledge and/or requisites, please refer to the individual Course Handbook.

The Program Handbook has valuable information on program structure and requirements, if you are intending on studying part time or varying from this program plan please seek prior advice from your Academic Program Advisor.