

Bachelor of Engineering (Honours) (Chemical)



Commenced in Semester 2 2015 and 2016



Studying at Callaghan

This Program Plan is an enrolment guide to ensure you are on track to graduate. The courses in coloured boxes have changed for your program. Further 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

CHEE1000 Process Engineering Principles	CHEM1020 # Introductory Chemistry II	MATH1110 Math for Engineering, Science and Technology 1	PHYS1205 Fundamentals of Engineering Physics <i>OR</i> PHYS1210 * Advanced Physics I
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Year 2

CHEM1010 # Introductory Chemistry I	ENGG1003 Introduction to Procedural Programming Replaces GENG1002 and ENGG1002	ENGG1500 Introduction to Professional Engineering Replaces GENG1803	MATH1120 Math for Engineering, Science and Technology 2
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CHEE2825 Chemical and Renewables Engineering Laboratory Replaces CHEE2820	DIRECTED ^ Replaces MATH2470	ELECTIVE	MATH2310 Calculus of Science and Engineering
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Year 3

CHEE2325 Thermodynamics of Chemical Processes Replaces CHEE3320	CHEE2695 Energy Transfer and Technologies Replaces CHEE2691	CHEE2945 Particle and Resource Engineering Replaces CHEE2940	CHEE3425 Chemical Process Safety Replaces CHEE2421
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CHEE2935 Resource and Energy Optimisation Replaces CHEE2931	CHEE3825 Chemical Engineering Laboratory 2 Replaces CHEE3841	ENGG2300 Engineering Fluid Mechanics Replaces CIVL2310	DIRECTED ^
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Year 4

CHEE3735 Mass Transfer Processes Replaces CHEE3741	CHEE4945A Design Project A Replaces CHEE4940A	CHEE4975A Chemical Engineering Research A Replaces CHEE4971A	ENGG3500 Managing Engineering Projects Replaces GENG3830
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CHEE4945B Design Project B Replaces CHEE4940B	CHEE4975B Chemical Engineering Research B Replaces CHEE4971B	CHEE3745 Process Modelling & Separation Process Replaces CHEE3731	ENGG4500 Engineering Complexity Replaces PHIL3910
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Year 5

CHEE4475 Dynamic Process Simulations and Control Replaces ELEC4400	CHEE3325 Chemical Reactor Design Replaces CHEE4320	DIRECTED ^	ELECTIVE
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Program Plan Key: = Core = Directed = Elective

- = Changes to course from 2017 onwards
- = Changes to course from 2018 onwards
- = Changes to course from 2019 onwards

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 courses – 280 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.

CHEM courses. Select either CHEM1010 (Callaghan) **and** CHEM1020 (Callaghan) *OR* CHEM1110 (Ourimbah) **and** CHEM1120 (Ourimbah).

✓ ^ Directed courses – 20 units. **If you have not successfully completed *MATH2470 Partial Differential Equations in Engineering* you must take an additional 10 units of directed courses.**

✓ Elective courses – 20 units. 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 5 years full time (40 units per semester) or part time equivalent.

✓ The maximum time to complete this program is 10 years.

✓ Please note that courses marked in coloured boxes are changing for your program.



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](#).



Bachelor of Engineering (Honours) (Chemical) – Directed Courses ^

Subject to change - Please refer to the program handbook for up to date information.

Choose **30 units** from the following Directed courses.
If you have not successfully completed MATH2470 you must take an additional 10 units of directed courses.

CHEM2410 Physical Chemistry
CHEE3690 Environ. Process Technology
CHEE4510 Proj Man and Innovation

Directed courses that have been removed from the program from 2021

CHEE3920 Coal and Mineral Processing (*No longer offered*)