Bachelor of Engineering (Honours) (Chemical)

📅 **Commenced in Semester 1, 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.

See the last page for some helpful hints & tips!

THE UNIVERSITY OF NEWCASTLE AUSTRALIA

Semester 1

Year 1
| CHEM1010 # Introductory Chemistry I | ENGG1003 Introduction to Procedural Programming — Replaces GENG1002 and ENGG1002 | ENGG1500 Introduction to Professional Engineering — Replaces GENG1803 | MATH1110 Math for Engineering, Science and Technology 1 — Replaces option of MATH1210 |

Year 2
| CHEE2325 Thermodynamics of Chemical Processes — Replaces CHEE3320 | CHEE2695 Energy Transfer and Technologies — Replaces CHEE2691 | CHEE2945 Particle and Resource Engineering — Replaces CHEE2940 | MATH2310 Calculus of Science and Engineering |

Year 3
| CHEE3325 Chemical Reactor Design — Replaces CHEE4320 | ENGG3500 Managing Engineering Projects — Replaces GENG3830 | CHEE3735 Mass Transfer Processes — Replaces CHEE3741 | CHEE3425 Chemical Process Safety — Replaces CHEE2421 |

Year 4
| CHEE4945A Design Project A — Replaces CHEE4940A | CHEE4975A Chemical Engineering Research A — Replaces CHEE4971A | CHEE4475 Dynamic Process Simulations and Control — Replaces ELEC4400 | ELECTIVE |

Semester 2

Year 1
| CHEE1000 Process Engineering Principles | CHEM1020 # Introductory Chemistry II | MATH1120 Math for Engineering, Science and Technology 2 — Replaces option of MATH1220 | PHYS1205 Fundamentals of Engineering Physics *OR* PHYS1210 * Advanced Physics I |

Year 2
| CHEE2825 Chemical and Renewables Engineering Laboratory — Replaces CHEE2820 | ENGG2300 Engineering Fluid Mechanics — Replaces CIVL2310 | DIRECTED ^ — Replaces MATH2470 | ELECTIVE |

Year 3
| CHEE2935 Resource and Energy Optimisation — Replaces CHEE2931 | CHEE3745 Process Modelling & Separation Processes — Replaces CHEE3731 | CHEE3825 Chemical Engineering Laboratory 2 — Replaces CHEE3841 | DIRECTED ^ |

Year 4
| CHEE4945B Design Project B — Replaces CHEE4940B | CHEE4975B Chemical Engineering Research — Replaces CHEE4971B | ENGG4500 Engineering Complexity — Replaces PHIL3910 | DIRECTED ^ |

Program Plan Key: ◣ = Core　◤ = Directed　◤ = Elective　☐ = Changes to course 2017 onwards　☐ = Changes from 2018 onwards　☐ = Changes from 2019 onwards

Information correct as of 2 November 2020 and subject to change.　　Program Code: 12284　　CRICOS Code: 018788M　　CRICOS Code: 00109J

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. More info here.

✔ The duration of this program is 4 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.

See the next page for a list of Directed courses

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)*