

4634 Bachelor of Engineering (Honours) and Bachelor of Arts 2015

Chemical engineering

Stage One:

- Course advice is required for enrolment in stage one – enrolment plan depends on the need for foundation units
- Level 2 electives may be undertaken following successful completion of 24 credit points. If a level 2 elective is undertaken at stage one, course advice is required to ensure that all engineering course requirements are met in later stages
- Students undertake a common first year and nominate their chosen specialisation through the 'branch selection' process

Core Units (30 credit points) – all students complete:	Foundation units (0 or 6 credit points)
ENG1060 Computing for engineers ENG1091 Mathematics for engineering ENG1001 Engineering design: lighter, faster, stronger ENG1002 Engineering design: cleaner, safer, smarter ENG1003 Engineering mobile apps	<i>Students who have not completed VCE units 3&4 of Chemistry, Physics and/or Specialist Mathematics must complete one unit from:</i> ENG1070 Foundation chemistry ENG1090 Foundation mathematics ENG1080 Foundation physics <i>Students who have not completed Year 12 VCE Specialist Mathematics (or equivalent) must undertake ENG1090 Foundation mathematics.</i>
Elective units (0 or 6 credit points)	
CHM1011 Chemistry I ENE1621 Environmental engineering ENG1021 Spatial communication in engineering ENG1051 Materials for energy and sustainability ENG1071 Chemistry for engineering ENG1081 Physics for engineering MNE1010 Introduction to mining	CHE2161 Mechanics of fluids or MEC2404 Mechanics of fluids ECE2041 Telecommunications ECE2072 Digital systems MAE2405 Aircraft performance TRC2001 Introduction to systems engineering Free elective – can be taken from any faculty where prerequisites can be met

Stage one 48 credit points (36 credit points Engineering and 12 credit points Arts)

Sem 1	Engineering stage one foundation unit <u>or</u> elective unit	Engineering stage one core unit	Engineering stage one core unit	Arts unit
Sem 2	Engineering stage one core unit	Engineering stage one core unit	Engineering stage one core unit	Arts unit

Stage two (54 credit points)

Sem 1	CHE2164 Thermodynamics	CHM2735 Chemistry – principles and practice	ENG2091 Advanced engineering mathematics A	Arts unit	
Sem 2	CHE2161 Mechanics of fluids	CHE2162 Material and energy balances	CHE2163 Heat and mass transfer	Arts unit	Arts unit

Stage three (54 credit points)

Sem 1	CHE3161 Chemistry and chemical thermodynamics	CHE3163 Sustainable processing I	Arts unit	Arts unit	
Sem 2	CHE3162 Process control	CHE3164 Reaction engineering	Arts unit	Arts unit	Arts unit

Stage four (48 credit points)

Sem 1	CHE3165 Separation processes	CHE3167 Transport phenomena and numerical methods	Arts unit	Arts unit
Sem 2	CHE3166 Process design	Arts unit	Arts unit	Arts unit

Stage five (48 credit points)

Sem 1	CHE4161 Engineering society	CHE4180 Chemical engineering project (12cp)	Arts unit
Sem 2	CHE4162 Particle technology	CHE4170 Design project (12cp)	CHE4173 Sustainable processing 2

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Notes:

Overloading	Students will normally expect to complete the course in five years. This is achieved by undertaking one additional unit per semester twice in the later stages of the degree Overloading is not compulsory, students may choose to complete in 5 ½ years
Credit points	Unless specified, all units are worth 6 credit points Bachelor of Engineering 22units x 6cp + 2 x 12cp = Total of 156 credit points Bachelor of Arts 16 units x 6cp = Total of 96 credit points (40 units = 252cp)
Unit requisites	All pre-requisite and co-requisite requirements must be undertaken in order to be able to enrol into a specific unit
Level 2 units	If MEC2404 Mechanics of fluids is completed at stage one, this unit can replace CHE2161 Mechanics of fluids at stage two in Chemical engineering
Duration of degree	5 years full-time, 10 years part-time
Time limit	Time limit = 10 years. Students have ten years in which to complete this award from the time they commence first year. Periods of intermission are counted as part of the ten years
Course advice	www.eng.monash.edu.au/current-students/course-advice.html www.monash.edu/students/courses/arts/course-planning.html
Monash University handbook	Students should follow the course requirements for the year the course was commenced http://monash.edu/pubs/2015handbooks/courses/index-byfaculty-eng.html
Branch Selection	www.eng.monash.edu.au/current-students/firstyear.html

All information correct at publication but may be subject to change – 14 January 2015

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