

4632 Bachelor of Engineering (Honours) 2015

Civil engineering

Stage one:

(48 credit points)

- 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, 6 or 12 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 or two units from:</i> ENG1070 Foundation Chemistry ENG1090 Foundation Mathematics PHS1080 Foundation physics
Elective units (6, 12 or 18 credit points)	
CHM1011 Chemistry I (Clayton) <u>or</u> CHM1051 Chemistry 1 advanced (Malaysia) 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 <u>or</u> 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 two

(48 credit points)

Sem 1	ENG2091 Advanced engineering mathematics A	CIV2206 Mechanics of solids	CIV2225 Design of steel and timber structures	CIV2263 Water systems
Sem 2	CIV2207 Computing and water systems modeling	CIV2226 Design of concrete and masonry structures	CIV2242 Geomechanics	CIV2282 transport and traffic engineering

Stage three

(48 credit points)

Sem 1	CIV3205 Project management for civil engineers	CIV3221 Building structures and technology	CIV3248 Groundwater and environmental geoengineering	CIV3264 urban water and wastewater systems
Sem 2	CIV3204 Engineering investigation	CIV3222 Bridge design and assessment	CIV3247 Geomechanics II	CIV3283 Road engineering

Stage four

(48 credit points)

Sem 1	CIV4210 Project A	Civil engineering elective – choose from list below	Civil engineering elective – choose from list below	Civil engineering elective – choose from list below
Sem 2	CIV4212 Civil engineering practice 4	Civil engineering elective – choose from list below	Civil engineering elective – choose from list below	Civil engineering elective – choose from list below

Civil Engineering elective units:

CIV3203 Civil engineering construction CIV4211 Project B* CIV4234 Advanced structural analysis CIV4235 Advanced structural design CIV4248 Ground hazards & enviro geotechnics CIV4249 Foundation engineering CIV4261 Integrated urban water management 6-point elective from any faculty**	CIV4268 Water resources management CIV4283 Transport planning CIV4284 Transport systems ENE3608 Environmental impact assessment and management systems ENE4607 Environmental risk assessment ENG4700 Engineering technology for biomedical imaging and sensing
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*Enrolment in this unit is by department approval only

** The free elective may be taken from within the faculty, from a discipline offered by another faculty. The free elective must be approved by the course adviser in the Department of Civil Engineering.

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Notes:

Credit points	Unless specified, all units are worth 6 credit points Bachelor of Engineering 32 units x 6cp = Total of 192 credit points
Unit requisites	All pre-requisite and co-requisite requirements must be undertaken in order to be able to enrol into a specific unit
Duration of degree	4 years full-time, 8 years part-time
Time limit	Time limit = 8 years. Students have eight years in which to complete this award from the time they commence first year. Periods of intermission are counted as part of the eight years.
Course advice	www.eng.monash.edu.au/current-students/course-advice.html
Monash University handbook	Students should follow the course structure 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/branch-selection.html

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