

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

Civil 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

(48 credit points)

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

Stage three

(54 credit points)

Sem 1	CIV2263 Water systems	CIV3205 Project management for civil engineers	CIV3221 Building structures and technology	Arts unit	
Sem 2	CIV2282 Transport and traffic engineering	CIV3204 Engineering investigations	CIV3222 Bridge design and assessment	Arts unit	Arts unit

Stage four

(54 credit points)

Sem 1	CIV3248 Groundwater and environmental geomechanics	CIV3264 Urban water and wastewater systems	Arts unit	Arts unit	
Sem 2	CIV3247 Geomechanics II	CIV3283 Road engineering	Arts unit	Arts unit	Arts unit

Stage five

(48 credit points)

Sem 1	CIV4210 Project A	Civil engineering elective from list below	Arts unit	Arts unit
Sem 2	CIV4212 Civil Engineering practice 4	Civil engineering elective from list below	Arts unit	Arts unit

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Civil Engineering elective units:

CIV3203 Civil engineering construction	CIV4261 Integrated urban water management
CIV4211 Project B*	CIV4268 Water resources management
CIV4234 Advanced structural analysis	CIV4283 Transport planning
CIV4235 Advanced structural design	CIV4284 Transport systems
CIV4248 Ground hazards engineering	ENG4700 Engineering technology for biomedical imaging and sensing
CIV4249 Foundation engineering	

*Enrolment in this unit is by department approval only

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 26units x 6cp = Total of 156 credit points Bachelor of Arts 16 units x 6cp = Total of 96 credit points (42 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
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
Faculty of Engineering, Monash University
CRICOS code 037828F