4638 Bachelor of Science and Bachelor of Engineering (Honours) 2015

Civil engineering

Stage one: **(48 credit points)**

Sem 1	ENG1001 Engineering design: Lighter, faster, stronger	PHS1011 Physics or PHS1080 Foundation physics	MTH1020 Analysis of change or MTH1030 Techniques for modelling	Stage 1 science unit as outlined below
Sem 2	ENG1060 Computing for engineers	PHS1022 Physics	MTH1030 Techniques for modelling or MTH2010 Multivariable calculus	Stage 1 science unit as outlined below

Stage two **(48 -54 credit points)**

Sem 1	CIV2206 Mechanics of solids	ENE1621 Environmental engineering or MNE1010 Introduction to mining	MTH2021 Linear algebra with applications	6 point approved science unit for minor
Sem 2	CIV2226 Design of concrete and masonry structures	CIV2242 Geomechanics !	MTH2032 Differential equations with modelling and MTH2010 Multivariable calculus *(if not taken at stage one)*	6 point approved science unit for minor

Stage three **(48 credit points)**

Sem 1	CIV2225 Design of steel and timber structures	CIV2263 Water systems	6 point approved science unit for major	6 point approved science unit for major
Sem 2	CIV2207 Computing and water systems modelling	CIV2282 Transport and traffic engineering	6 point approved science unit for major	6 point approved science unit for major

Stage four **(48 credit points)**

Sem 1	Level 3 CIV unit from list below	Level 3 CIV unit from list below	6 point approved science unit for major or extended major	6 point approved science unit for major or extended major
Sem 2	Level 3 CIV unit from list below	Level 3 CIV unit from list below	6 point approved science unit for major or extended major	6 point approved science unit for major or extended major

Stage five **(48 credit points)**

Sem 1	CIV4210 Project I	Level 3 CIV unit from list below	Level 3 CIV unit from list below	Civil engineering elective from list below
Sem 2	CIV4212 Civil engineering practice 4	Level 3 CIV unit from list below	Level 3 CIV unit from list below	Civil engineering elective from list below

Stage 1 Science units:

Select one pair:

- ASP1010 Earth to cosmos – introductory astronomy and ASP1022 Life and the universe
- BIO1011 Biology and BIO1022 Biology II
- ESC1011 Planet earth: Our place in the universe and ESC1022 Planet earth, Surface processes
- FIT1029 Algorithmic problem solving and FIT1040 Programming fundamentals
- STA1010 Statistical methods for science and MAT1830 Discrete mathematics for computer science

Level 3 Civil Engineering (CIV) units:

CIV3204 Engineering investigation
CIV3205 Project management for civil engineers
CIV3221 Building structures and technology
CIV3222 Bridge design and assessment
CIV3247 Geomechanics 2
CIV3248 Groundwater and environmental geoemechanics
CIV3264 Urban water and waste water systems
CIV3283 Road engineering

Civil Engineering elective units:

CIV3203 Civil engineering construction
CIV4211 Project B (enrolment in this unit is by departmental approval only)
CIV4234 Advanced structural analysis
CIV4235 Advanced structural design
CIV4248 Ground hazards engineering
CIV4249 Foundation engineering
CIV4261 Integrated urban water management
CIV4268 Water resources management
CIV4283 Transport planning
CIV4284 Transport systems
ENG4700 Engineering technology for biomedical imaging and sensing

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Civil Engineering

Notes:

Choosing the right level one maths unit	The choice of either MTH1020 and MTH1030 or MTH1030 and MTH2010 at stage one is determined by the level of preparation from VCE studies,
MTH2032	Students who complete a major or extended major in mathematics do not need to overload at stage two but rather complete the unit at stage three
Overloading	Students will normally expect to complete the course in five years In some cases, overloading may also be required to meet Science requirements – please seek advice from the Faculty of Science Overloading is not compulsory, students may choose to complete in 5 ½ years
Credit points	Unless specified, all units are worth 6 credit points – minimum of: **Bachelor of Engineering** 22 units x 6cp = **Total of 132 credit points** **Bachelor of Science** 18 units x 6cp = **Total of 108 credit points** (240cp)
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 http://monash.edu/science/current/undergraduate/help/
Monash handbook	Students should follow the course requirements for the year the course was commenced http://monash.edu/pubs/2015handbooks/courses/index-byfaculty-eng.html

All information correct at publication but may be subject to change – 15 November 2014
Faculty of Engineering, Monash University
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