

# BE(Hons)/ME - CIVIL ENGINEERING

## Study plan

EAIT faculty home: [www.eait.uq.edu.au](http://www.eait.uq.edu.au)  
 CIVIL home: [www.civil.uq.edu.au](http://www.civil.uq.edu.au)

		Parts A and M - Compulsory #56				Part B1 - Introductory Electives					Part B0 - Preparatory Electives				
March Semester	1	Engineering design ENGG1100	Engineering mechanics: Statics and Dynamics ENGG1400 March or July Semester	Calculus & Linear algebra 1 MATH1051/1071 March or July Semester	Elective	March Semester	Earth processes and geological materials for engineers EARTH1501	Introduction to mining MINE2105	Mining geomechanics MINE3121	Building construction management & economics REDE1300	Chemistry 1 CHEM1100 March or July Semester	Calculus & linear algebra II MATH2000/2001 March or July Semester	Mathematical foundations MATH1050 March or July Semester	Introductory chemistry CHEM1090	Physical basis of biological systems PHYS1171 March or July Semester
July Semester	2	Engineering modelling and problem solving ENGG1200	Elective	Multivariate calculus & ODE's MATH1052/1072 March or July Semester	Elective	July Semester	Engineering thermomechanics ENGG1500 March or July Semester	Introduction to electrical systems ENGG1300 March or July Semester	Introduction to research - The big issues ENGG1600	Electromagnetism & modern physics PHYS1002 March or July Semester	Introduction to software engineering 1 March or July Semester				
March Semester	3	Structural mechanics CIVL2330	Probability statistics and scientific computing CIVL2530	Environmental Issues and Sustainability in Engineering CIVL2135	Traffic flow theory and analysis CIVL2410										
July Semester	4	Introduction to structural design CIVL2340	Fluid mechanics for civil & environmental engineers CIVL2131	Reinforced concrete structures & concrete tech. CIVL2360	Fundamentals of soil mechanics CIVL2210	<b>Part B2 - Advanced BE (Hons) electives and Part N - Masters level electives<sup>@</sup></b>									
March Semester	5	Structural analysis CIVL3340	Catchment Hydraulics: Open Channel Flow & Design CIVL3140	Elective	Geotechnical engineering CIVL3210	March Semester		Numerical methods in engineering CIVL4250 <sup>#</sup>	Travel behaviour and transport modelling CIVL4412		Introduction to fire safety engineering FIRE3700	Fire engineering design: Solutions for implicit safety FIRE4610	Advanced fluid mechanics CIVL4160 <sup>o</sup> ODD		
July Semester	6	Structural design CIVL3350	Transportation systems engineering CIVL3420	Catchment hydrology CIVL3141	Introduction to project management CIVL3510 <sup>\$</sup>	July Semester			Advanced transport engineering CIVL4411	Highway geometric design CIVL4460	Modelling of environmental systems CIVL3150	Industrial wastewater and solid waste management CHEE4012	Coastal and estuarine processes CIVL4110 <sup>o</sup> ODD	Adv. open channel flow and hydraulic structures CIVL4120 <sup>o</sup> EVEN	
March Semester	7	Civil design 1 CIVL4514	Elective	B2 Elective	B2 Elective	March Semester		Wind Engineering CIVL4340	Advanced concrete design CIVL4333		Groundwater & surface flow modelling CIVL4140	Environmental Risk Assessment and Management CIVL4170	Sustainable built environment CIVL4180	Mine waste management and landfill design MINE4000	Geotechnical investigating and testing CIVL4270
July Semester	8	Civil design 3 CIVL4516	B2 Elective	B2 Elective	Prof. practice & the business environment ENGG4900 March or July Semester	July Semester		Anal. methods for the design of construction Op. CIVL4522	Advanced structural analysis CIVL4332	Design of timber structures CIVL4334				Advanced soil mechanics CIVL4230	Advanced rock mechanics CIVL4280
March Semester	9	Research thesis CIVL7500/7501 <sup>4</sup>		Part N Elective	Part N Elective	March Semester		Modelling of environmental fluid mechanics CIVL7155 <sup>o</sup> EVEN	Advanced engineering monitoring CIVL7135 <sup>o</sup> ODD	Ground improvement and remediation technologies CIVL7215 <sup>o</sup> ODD	Dam and embankment engineering CIVL7225 <sup>o</sup> EVEN	Design of composite structures CIVL7350	Spatial and quant. methods for transport data analysis CIVL7415 <sup>o</sup> EVEN	Transport models for planning CIVL7425 <sup>o</sup> ODD	Structural fire engineering FIRE7660
July Semester	10			Part N Elective	Engineering grand challenges ENGG7701	July Semester	Research methods for civil engineers CIVL7505		Advanced sustainable built environment CIVL7170		Underground structures CIVL7235 <sup>o</sup> EVEN	Advanced concrete structures and concrete technology CIVL7315	Computational methods for optimization and advanced analysis CIVL7360	Traffic simulation CIVL7435 <sup>o</sup> ODD	Fire dynamics FIRE7620

<sup>o</sup> Course offered in ODD years only.

<sup>e</sup> Course offered in EVEN years only.

<sup>@</sup> Some Part N electives are available only every second year. Students may need to do them in their 4th year.

<sup>\$</sup> CIVL3510 may be done in semester 8 to allow completion of CIVL4110 or CIVL4120

<sup>#</sup> CIVL4250 is not offered in 2018

<sup>4</sup> Two semester course (#8 units)