

# Bachelor of Engineering (Honours) (Environmental) with Bachelor of Mathematical and Computer Sciences – Computer Science Major – All Majors – Semester 1 Start

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Bachelor of Engineering (Honours) - Environmental with Bachelor of Mathematical and Computer Sciences -  
Computer Science Major

Year 1				
S 1	MATHS 1011 Mathematics IA <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	^ ENG 1001 Introduction to Engineering <input type="checkbox"/>	CEME 1001 Introduction to Environmental Engineering <input type="checkbox"/>
S 2	MATHS 1012 Mathematics IB <input type="checkbox"/>	ENV BIOL 1002 Ecological Issues I <input type="checkbox"/>	CEME 1002 Introduction to Infrastructure <input type="checkbox"/>	CEME 1003 Resources and Energy in a Circular Economy <input type="checkbox"/>
Year 2				
S 1	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>	CEME 2003 Civil Engineering Hydraulics <input type="checkbox"/>	CEME 2004 Introduction to Geo-engineering <input type="checkbox"/>	CHEM ENG 2017 Transport Processes in the Environment <input type="checkbox"/>
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	CEME 2006 Environmental Modelling and Simulation <input type="checkbox"/>	CEME 2005 Transportation Engineering & Survey <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>
Year 3				
S 1	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	CEME 3004 Hydrology for Engineers <input type="checkbox"/>	GEOG 2129 Introductory Geographic Information Systems <input type="checkbox"/>	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>
S 2	ENG 3005 Research Method & Project Management <input type="checkbox"/>	CEME 3005 Advanced Civil Engineering Hydraulics <input type="checkbox"/>	CEME 3007 Integrated Environment Planning & Impact Assessment <input type="checkbox"/>	COMP SCI 2201 Algorithm & Data Structure Analysis <input type="checkbox"/>
Internship				
All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of internship during the course of their studies – see note below.				
Year 4				
S 1	ENG 4001A Research Project Part A <input type="checkbox"/>	CEME 4009 Environmental Decision Making <input type="checkbox"/>	CHEM ENG 4051 Water & Wastewater Engineering <input type="checkbox"/>	COMP SCI 2000 Computer Systems <input type="checkbox"/>
S 2	ENG 4001B Research Project Part B <input type="checkbox"/>	CEME 4010 Designing Water Resource Systems for Urban Environments <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	COMP SCI 3006 Software Engineering & Project <input type="checkbox"/>
Year 5				
S 1	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>



S 2	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>
Core Courses		Double Degree Courses		Elective (see table)

^ Unless exempted, International students are required to take ENG 1011 Introduction to Engineering - EAL in lieu of ENG 1001 Introduction to Engineering.  
Computer Science Electives may be chosen for the courses listed in the Program Rules for the degree of Bachelor of Mathematics and Computer Sciences.

## Electives Table

### CHOOSE FROM THE FOLLOWING ENVIRONMENTAL ENGINEERING ELECTIVES

<b>S1</b>	DESST 2517 ENTREP 3006 GEOG 2135 GEOG 2139	Environment II Energy Management, Economics and Policy Urban Futures Environmental Management	<b>S2</b>	C&ENVENG 4110 ENTREP 3000 GEOG 2142 GEOLOGY 3502 LAW 2511	Soil and Ground Water Remediation Innovation and Creativity Climate Change Mineral and Energy Resources III Environmental Law
<b>SUMMER</b>	ENTREP 3000	Innovation and Creativity	<b>WINTER</b>	ENTREP 3000 ENTREP 3006	Innovation and Creativity Energy Management, Economics and Policy
<b>TBC</b>	CEME 4007 CEME 4005 CEME 4006 CEME 4004	Unsaturated Soils Advanced Hydrological Modelling & Water Resource Systems Advanced Hydrology and Flood Hydraulics Advanced Water Distribution Systems Engineering			

#### NOTES

**Internship:** The 8 weeks of internship must be supervised by a qualified engineer and may be completed in one placement or a series of placements. The Faculty recommends students undertake internships upon commencement of third year engineering courses. Internships are self-sourced and resources are available through [Careers Service](#). Register with CareerHub to access a database where opportunities are posted.

#### Information and Enrolment Advice:

Ask ECMS

Email: [askecms@adelaide.edu.au](mailto:askecms@adelaide.edu.au)

Website: <https://ecms.adelaide.edu.au/study-with-us/student-support>

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Bachelor of Engineering (Honours) (Environmental) - Defence Systems Major  
with Bachelor of Mathematical and Computer Sciences - Computer Science Major

Year 1				
S 1	MATHS 1011 Mathematics IA <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	^ ENG 1001 Introduction to Engineering <input type="checkbox"/>	CEME 1001 Introduction to Environmental Engineering <input type="checkbox"/>
S 2	MATHS 1012 Mathematics IB <input type="checkbox"/>	ENV BIOL 1002 Ecological Issues I <input type="checkbox"/>	CEME 1002 Introduction to Infrastructure <input type="checkbox"/>	CEME 1003 Resources and Energy in a Circular Economy <input type="checkbox"/>
Year 2				
S 1	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>	CEME 2003 Civil Engineering Hydraulics <input type="checkbox"/>	CEME 2004 Introduction to Geo-engineering <input type="checkbox"/>	CHEM ENG 2017 Transport Processes in the Environment <input type="checkbox"/>
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	CEME 2005 Transportation Engineering & Survey <input type="checkbox"/>	CEME 2006 Environmental Modelling and Simulation <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>
Year 3				
S 1	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	CEME 3004 Hydrology for Engineers <input type="checkbox"/>	GEOG 2129 Introductory Geographic Information Systems <input type="checkbox"/>	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>
S 2	ENG 3005 Research Method & Project Management <input type="checkbox"/>	CEME 3005 Advanced Civil Engineering Hydraulics <input type="checkbox"/>	CEME 3007 Integrated Environment Planning & Impact Assessment <input type="checkbox"/>	COMP SCI 2201 Algorithm & Data Structure Analysis <input type="checkbox"/>
Internship				
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Year 4				
S 1	ENG 4001A Research Project Part A <input type="checkbox"/>	POLIS 1104 Introduction to Comparative Politics <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	COMP SCI 2000 Computer Systems <input type="checkbox"/>
S 2	ENG 4001B Research Project Part B <input type="checkbox"/>	ENG 3305 Human Factors in Decision Making <input type="checkbox"/>	CEME 4010 Designing Water Resource Systems for Urban Environments <input type="checkbox"/>	COMP SCI 3006 Software Engineering & Project <input type="checkbox"/>
Year 5				
S 1	CEME 4009 Environmental Decision Making <input type="checkbox"/>	CHEM ENG 4051 Water & Wastewater Engineering <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>
S 2	ENG 4020 Complex Systems Engineering <input type="checkbox"/>	ENG 4010 Defence Leadership <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>

Core Courses	Major Courses	Double Degree Courses	Elective (see electives table)
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## Electives Table

CHOOSE FROM THE FOLLOWING ENVIRONMENTAL ENGINEERING ELECTIVES					
<b>S1</b>	DESST 2517 ENTREP 3006 GEOG 2135 GEOG 2139	Environment II Energy Management, Economics and Policy Urban Futures Environmental Management	<b>S2</b>	C&ENVENG 4110 ENTREP 3000 GEOG 2142 GEOLOGY 3502 LAW 2511	Soil and Ground Water Remediation Innovation and Creativity Climate Change Mineral and Energy Resources III Environmental Law
<b>SUMMER</b>	ENTREP 3000	Innovation and Creativity	<b>WINTER</b>	ENTREP 3000 ENTREP 3006	Innovation and Creativity Energy Management, Economics and Policy
<b>TBC</b>	CEME 4007 CEME 4005 CEME 4006 CEME 4004	Unsaturated Soils Advanced Hydrological Modelling & Water Resource Systems Advanced Hydrology and Flood Hydraulics Advanced Water Distribution Systems Engineering			

### NOTES

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with Bachelor of Mathematical and Computer Sciences - Computer Science Major

Year 1				
S 1	MATHS 1011 Mathematics IA <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	^ ENG 1001 Introduction to Engineering <input type="checkbox"/>	CEME 1001 Introduction to Environmental Engineering <input type="checkbox"/>
S 2	MATHS 1012 Mathematics IB <input type="checkbox"/>	ENV BIOL 1002 Ecological Issues I <input type="checkbox"/>	CEME 1002 Introduction to Infrastructure <input type="checkbox"/>	CEME 1003 Resources and Energy in a Circular Economy <input type="checkbox"/>
Year 2				
S 1	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>	CEME 2003 Civil Engineering Hydraulics <input type="checkbox"/>	CEME 2004 Introduction to Geo-engineering <input type="checkbox"/>	CHEM ENG 2017 Transport Processes in the Environment <input type="checkbox"/>
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	CEME 2006 Environmental Modelling and Simulation <input type="checkbox"/>	CEME 2005 Transportation Engineering & Survey <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>
Year 3				
S 1	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	CEME 3004 Hydrology for Engineers <input type="checkbox"/>	GEOG 2129 Introductory Geographic Information Systems <input type="checkbox"/>	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>
S 2	ENG 3005 Research Method & Project Management <input type="checkbox"/>	CEME 3005 Advanced Civil Engineering Hydraulics <input type="checkbox"/>	CEME 3007 Integrated Environment Planning & Impact Assessment <input type="checkbox"/>	COMP SCI 2201 Algorithm & Data Structure Analysis <input type="checkbox"/>
Internship				
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Year 4				
S 1	ENG 4001A Research Project Part A <input type="checkbox"/>	CEME 4009 Environmental Decision Making <input type="checkbox"/>	CHEM ENG 4051 Water & Wastewater Engineering <input type="checkbox"/>	COMP SCI 2000 Computer Systems <input type="checkbox"/>
S 2	ENG 4001B Research Project Part B <input type="checkbox"/>	MECH ENG 3032 Micro-Controller Programming <input type="checkbox"/>	CEME 4010 Designing Water Resource Systems for Urban Environments <input type="checkbox"/>	COMP SCI 3006 Software Engineering & Project <input type="checkbox"/>
Year 5				
S 1	COMP SCI 3001 Computer Networks & Applications <input type="checkbox"/>	COMP SCI 3305 Parallel and Distributed Computing <input type="checkbox"/>	Level II or III Computer Science Elective <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>
S 2	Level II or III Computer Science Elective <input type="checkbox"/>	COMP SCI 4812 Secure Software Engineering <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>

Core Courses	Major Courses	Double Degree Courses
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S 2	MATHS 1012 Mathematics IB <input type="checkbox"/>	ENV BIOL 1002 Ecological Issues I <input type="checkbox"/>	CEME 1002 Introduction to Infrastructure <input type="checkbox"/>	CEME 1003 Resources and Energy in a Circular Economy <input type="checkbox"/>	
Year 2					
S 1	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>	CEME 2003 Civil Engineering Hydraulics <input type="checkbox"/>	CEME 2004 Introduction to Geo-engineering <input type="checkbox"/>	ELEC ENG 1101 Electronic Systems <input type="checkbox"/>	
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	CEME 2005 Transportation Engineering & Survey <input type="checkbox"/>	CEME 2006 Environmental Modelling and Simulation <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>	
Year 3					
S 1	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	CEME 3004 Hydrology for Engineers <input type="checkbox"/>	GEOG 2129 Introductory Geographic Information Systems <input type="checkbox"/>	CHEM ENG 2017 Transport Processes in the Environment <input type="checkbox"/>	
S 2	ENG 3005 Research Method & Project Management <input type="checkbox"/>	CEME 3005 Advanced Civil Engineering Hydraulics <input type="checkbox"/>	CEME 3007 Integrated Environment Planning & Impact Assessment <input type="checkbox"/>	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>	
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S 2	ENG 4001B Research Project Part B <input type="checkbox"/>	CEME 4010 Designing Water Resource Systems for Urban Environments <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	COMP SCI 2000 Computer Systems <input type="checkbox"/>	
Year 5					
S 1	MECH ENG 4064 Renewable Power Technologies <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	COMP SCI 3006 Software Engineering & Project <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>	
S 2	CHEM ENG 4048 Biofuels, Biomass and Wastes <input type="checkbox"/>	ELEC ENG 4111 Distributed Generation Technologies <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>	Level III Computer Science Elective <input type="checkbox"/>	
Core Courses		Major Courses		Elective (see electives table)	Double Degree Courses



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