

School of Civil, Environmental & Mining Engineering

Bachelor of Engineering (Honours) (Environmental) with Bachelor of Mathematical and Computer Sciences - Mathematics Major – All Majors

Semester 1 Start

[Bachelor of Engineering \(Honours\) \(Environmental\) with Bachelor of Mathematical and Computer Sciences - Mathematics Major](#)

[Bachelor of Engineering \(Honours\) \(Environmental\) - Defence Systems Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major](#)

[Bachelor of Engineering \(Honours\) \(Environmental\) - Smart Technologies Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major](#)

[Bachelor of Engineering \(Honours\) \(Environmental\) - Renewable Energy Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major](#)

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

Year 1				
S 1	# MATHS 1011 Mathematics IA <input type="checkbox"/>	ENG 1003 Programming (Matlab and Excel) <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"/>	Level II or III Mathematics Elective <input type="checkbox"/>
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	GEOG 2129 Introductory Geographic Information Systems <input type="checkbox"/>	CEME 2006 Environmental Modelling and Simulation <input type="checkbox"/>	Level II or III Mathematics Elective <input type="checkbox"/>
Year 3				
S 1	ENG 3004 Interdisciplinary Professional Practice <input type="checkbox"/>	CEME 3004 Hydrology for Engineers <input type="checkbox"/>	CEME 3007 Integrated Environment Planning & Impact Assessment <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 4008 Soil and Groundwater Remediation <input type="checkbox"/>	Level II or III Mathematics Elective <input type="checkbox"/>
Internship				
All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of internship (6 units) during the course of their studies – see note below elective table.				
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"/>	Level II or III Mathematics Elective <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"/>	Environmental Engineering Elective (see elective table) <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"/>	Level III Mathematics Elective <input type="checkbox"/>	Level III Mathematics 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 Mathematics Elective <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>

Electives Table

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

NOTES

^ EAL: Unless exempted, International students are required to take ENG 1011 Introduction to Engineering - EAL in lieu of ENG 1001 Introduction to Engineering

Maths: Students who have not passed SACE Stage 2 Specialist Maths must enrol in MATHS 1013 Mathematics IM before enrolling in MATHS 1011 Mathematics IA. Manage your enrolment by completing MATHS 1013 Mathematics IM in semester 1 followed by MATHS 1011 Mathematics IA in semester 2 and MATHS 1012 Mathematics IB in summer school. MATHS 1013 Mathematics IM is in addition to the requirements of this program.

Internships: 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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through [Careers Service](#). Register with CareerHub to access a database where opportunities are posted.

General Electives: How to choose an elective course in your area of interest? Please refer to the steps via the link: <https://ecms.adelaide.edu.au/study-with-us/student-support/enrolment>

Program Rules: For academic program rules please refer to the following website: <https://calendar.adelaide.edu.au/faculty/ecms>

Information and Enrolment Advice:

Ask ECMS

Email: askecms@adelaide.edu.au

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

Year 1				
S 1	# MATHS 1011 Mathematics IA <input type="checkbox"/>	ENG 1003 Programming (Matlab and Excel) <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"/>	Level II or III Mathematics Elective <input type="checkbox"/>
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	GEOG 2129 Introductory Geographic Information Systems <input type="checkbox"/>	CEME 2006 Environmental Modelling and Simulation <input type="checkbox"/>	Level II or III Mathematics Elective <input type="checkbox"/>
Year 3				
S 1	ENG 3004 Interdisciplinary Professional Practice <input type="checkbox"/>	CEME 3004 Hydrology for Engineers <input type="checkbox"/>	CHEM ENG 2017 Transport Processes in the Environment <input type="checkbox"/>	POLIS 1104 Introduction to Comparative Politics <input type="checkbox"/>
S 2	ENG 3005 Research Method & Project Management <input type="checkbox"/>	CEME 3005 Advanced Civil Engineering Hydraulics <input type="checkbox"/>	CEME 4008 Soil and Groundwater Remediation <input type="checkbox"/>	Level II or III Mathematics Elective <input type="checkbox"/>
Internship				
All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of internship (6 units) during the course of their studies – see note below elective table.				
Year 4				
S 1	ENG 4001A Research Project Part A <input type="checkbox"/>	CEME 3007 Integrated Environment Planning & Impact Assessment <input type="checkbox"/>	CHEM ENG 4051 Water & Wastewater Engineering <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <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"/>	Level II or III Mathematics Elective <input type="checkbox"/>
Year 5				
S 1	CEME 4009 Environmental Decision Making <input type="checkbox"/>	Environmental Engineering Elective (see elective table) <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>
S 2	ENG 4020 Complex Systems Engineering <input type="checkbox"/>	ENG 4010 Defence Leadership <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>

Electives Table

CHOOSE FROM THE FOLLOWING ENVIRONMENTAL ENGINEERING ELECTIVES

TBC	CEME 4004 Advanced Water Distribution Systems Engineering <input type="checkbox"/>	CEME 4005 Advanced Hydrological Modelling & Water Resource Systems <input type="checkbox"/>	CEME 4006 Advanced Hydrology and Flood Hydraulics <input type="checkbox"/>	CEME 4007 Unsaturated Soils <input type="checkbox"/>
	ENTREP 3000 Innovation and Creativity <input type="checkbox"/>	ENTREP 3006 Energy Management, Economics and Policy <input type="checkbox"/>		

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Bachelor of Engineering (Honours) (Environmental) - Smart Technologies Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major

Year 1				
S 1	# MATHS 1011 Mathematics IA <input type="checkbox"/>	ENG 1003 Programming (Matlab and Excel) <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"/>	Level II or III Mathematics Elective <input type="checkbox"/>
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	GEOG 2129 Introductory Geographic Information Systems <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 Interdisciplinary Professional Practice <input type="checkbox"/>	CEME 3004 Hydrology for Engineers <input type="checkbox"/>	CEME 3007 Integrated Environment Planning & Impact Assessment <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 4008 Soil and Groundwater Remediation <input type="checkbox"/>	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>
Internship				
All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks of internship (6 units) during the course of their studies – see note below elective table.				
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"/>	Level II or III Mathematics Elective <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"/>	Level II or III Mathematics Elective <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 III Mathematics Elective <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>
S 2	Level II or III Mathematics Elective <input type="checkbox"/>	COMP SCI 4812 Secure software Engineering <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>

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Bachelor of Engineering (Honours) (Environmental) - Renewable Energy Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major

Year 1				
S 1	#MATHS 1011 Mathematics IA <input type="checkbox"/>	ENG 1003 Programming (Matlab and Excel) <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"/>	ELEC ENG 1101 Electronic Systems <input type="checkbox"/>
S 2	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>	GEOG 2129 Introductory Geographic Information Systems <input type="checkbox"/>	CEME 2006 Environmental Modelling and Simulation <input type="checkbox"/>	Level II or III Mathematics Elective <input type="checkbox"/>
Year 3				
S 1	ENG 3004 Interdisciplinary Professional Practice <input type="checkbox"/>	CEME 3004 Hydrology for Engineers <input type="checkbox"/>	CHEM ENG 2017 Transport Processes in the Environment <input type="checkbox"/>	CEME 3007 Integrated Environment Planning & Impact Assessment <input type="checkbox"/>
S 2	ENG 3005 Research Method & Project Management <input type="checkbox"/>	CEME 3005 Advanced Civil Engineering Hydraulics <input type="checkbox"/>	CEME 4008 Soil and Groundwater Remediation <input type="checkbox"/>	Level II or III Mathematics Elective <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"/>	Level II or III Mathematics Elective <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"/>	Level III Mathematics Elective <input type="checkbox"/>	Level III Mathematics 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 Mathematics Elective <input type="checkbox"/>	Level III Mathematics Elective <input type="checkbox"/>

Electives Table

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TBC	CEME 4004 Advanced Water Distribution Systems Engineering <input type="checkbox"/>	CEME 4005 Advanced Hydrological Modelling & Water Resource Systems <input type="checkbox"/>	CEME 4006 Advanced Hydrology and Flood Hydraulics <input type="checkbox"/>	ENTREP 3000 Innovation and Creativity <input type="checkbox"/>
	GEOG 2135 Urban Futures	GEOG 2142 Climate Change	DESST 2517 Environment II	LAW 2511 Environmental Law
	GEOLOGY 3502 Mineral & Energy Resources			

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