THE UNIVERSITY of ADELAIDE

2022 Study Plan
Bachelor of Engineering (Honours) (Environmental & Climate Solutions) with Bachelor of Mathematical and Computer Sciences – Mathematics Major
Semester 1 Start

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No Major

Year 1				
S 1	MATHS 1011 Mathematics IA ☐	ENG 1002 Programming (Matlab and C) ☐	^ ENG 1001 Introduction to Engineering ☐	CEME 1001 Introduction to Environmental Engineering ☐
S 2	MATHS 1012 Mathematics IB ☐	ENV BIOL 1002 Ecological Issues I ☐	CEME 1002 Introduction to Infrastructure ☐	CEME 1003 Resources and Energy in a Circular Economy ☐
Year 2				
S 1	MATHS 2106 Differential Equations for Engineers II ☐	CEME 2003 Civil Engineering Hydraulics ☐	CEME 2004 Introduction to Geo-engineering ☐	#Level II or III Mathematics Elective ☐
S 2	MATHS 2107 Statistics & Numerical Methods II ☐	CEME 2005 Transportation Engineering & Survey ☐	CEME 2006 Climate & Environmental Change Impact Modelling ☐	#Level II or III Mathematics Elective ☐
Year 3				
S 1	ENG 3004 Systems Engineering and Industry Practice ☐	CEME 3004 Hydrology for Engineers ☐	GEOG 2129 Introductory Geographic Information Systems ☐	CHEM ENG 2017 Transport Processes in the Environment ☐
S 2	ENG 3005 Research Method & Project Management ☐	CEME 3005 Advanced Civil Engineering Hydraulics ☐	CEME 3007 Integrated Environment Planning & Impact Assessment ☐	#Level II or III Mathematics Elective ☐
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 the note section below.				
Year 4				
S 1	ENG 4001A Research Project Part A ☐	Environmental & Climate Solutions Elective – Set 1 (see elective table) ☐	Environmental & Climate Solutions Elective – Set 1 (see elective table) ☐	CEME 4008 Soil and Ground Water Remediation ☐
S 2	ENG 4001B Research Project Part B ☐	CEME 4010 Designing Water Resource Systems for Urban Environments ☐	CEME 4009 Environmental Decision Making ☐	#Level II or III Mathematics Elective ☐

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Year 5				
S 1	Environmental & Climate Solutions Elective – Set 2 (see elective table) ☐	Environmental & Climate Solutions Elective – Set 2 (see elective table) ☐	#Level III Mathematics Elective ☐	#Level III Mathematics Elective ☐
S 2	Environmental & Climate Solutions Elective – Set 1 (see elective table) ☐	Environmental & Climate Solutions Elective – Set 2 (see elective table) ☐	#Level III Mathematics Elective ☐	#Level III Mathematics Elective ☐

Core Courses	Double Degree Courses	Elective

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

CHOOSE FROM THE FOLLOWING ENVIRONMENTAL AND CLIMATE SOLUTIONS ELECTIVES – SET 1					
S1	GEOG 2139	Environmental Management	**S2**	ENTREP 3000 GEOG 2135 GEOG 2142 GEOLOGY 3502 LAW 2511	Innovation and Creativity Urban Futures Climate Change Mineral and Energy Resources III Environmental Law
SUMMER	ENTREP 3000	Innovation and Creativity			
CHOOSE FROM THE FOLLOWING ENVIRONMENTAL AND CLIMATE SOLUTIONS ELECTIVES – SET 2					
S1	ENTREP 3006 MINING 4104	Energy Management, Economics and Policy Socio-Environmental Aspects of Mining	**S2**	CEME 4006	Climate Risk and Resilience
SUMMER	CEME 4005	Integrated Natural Hazard Risk Management	**WINTER**	ENTREP 3006	Energy Management, Economics and Policy

NOTES

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Semester 1 Start

Climate Solutions Major

Year 1				
S 1	MATHS 1011 Mathematics IA ☐	ENG 1002 Programming (Matlab and C) ☐	^ ENG 1001 Introduction to Engineering ☐	CEME 1001 Introduction to Environmental Engineering ☐
S 2	MATHS 1012 Mathematics IB ☐	ENV BIOL 1002 Ecological Issues I ☐	CEME 1002 Introduction to Infrastructure ☐	CEME 1003 Resources and Energy in a Circular Economy ☐
Year 2				
S 1	MATHS 2106 Differential Equations for Engineers II ☐	CEME 2003 Civil Engineering Hydraulics ☐	CEME 2004 Introduction to Geo-engineering ☐	#Level II or III Mathematics Elective ☐
S 2	MATHS 2107 Statistics & Numerical Methods II ☐	CEME 2005 Transportation Engineering & Survey ☐	CEME 2006 Climate & Environmental Change Impact Modelling ☐	#Level II or III Mathematics Elective ☐
Year 3				
S 1	ENG 3004 Systems Engineering and Industry Practice ☐	GEOG 2129 Introductory Geographic Information Systems ☐	CHEM ENG 2017 Transport Processes in the Environment ☐	#Level II or III Mathematics Elective ☐
S 2	ENG 3005 Research Method & Project Management ☐	CEME 3005 Advanced Civil Engineering Hydraulics ☐	CEME 3007 Integrated Environment Planning & Impact Assessment ☐	GEOG 2142 Climate Change ☐
Internship				
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Year 4				
S U M	CEME 4005 Integrated Natural Hazard Risk Management ☐			
S 1	ENG 4001A Research Project Part A ☐	CEME 3004 Hydrology for Engineers ☐	Environmental & Climate Solutions Elective – Set 1 (see elective table) ☐	#Level II or III Mathematics Elective ☐
S 2	ENG 4001B Research Project Part B ☐	CEME 4006 Climate Risk and Resilience ☐	CEME 4010 Designing Water Resource Systems for Urban Environments ☐	CEME 4009 Decision Making for Sustainable Solutions ☐

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Semester 1 Start

Year 5				
S 1	CEME 4008 Soil and Ground Water Remediation ☐	Environmental & Climate Solutions Elective – Set 2 ☐ (see elective table)	#Level III Mathematics Elective ☐	#Level III Mathematics Elective ☐
S 2		Environmental & Climate Solutions Elective – Set 1 ☐ (see elective table)	#Level III Mathematics Elective ☐	#Level III Mathematics Elective ☐

Core Courses	Double Degree Courses	Elective	Major Courses

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CHOOSE FROM THE FOLLOWING ENVIRONMENTAL AND CLIMATE SOLUTIONS ELECTIVES – SET 1					
S1	GEOG 2139	Environmental Management	**S2**	ENTREP 3000 GEOG 2135 GEOG 2142 GEOLOGY 3502 LAW 2511	Innovation and Creativity Urban Futures Climate Change Mineral and Energy Resources III Environmental Law
SUMMER	ENTREP 3000	Innovation and Creativity			
CHOOSE FROM THE FOLLOWING ENVIRONMENTAL AND CLIMATE SOLUTIONS ELECTIVES – SET 2					
S1	ENTREP 3006 MINING 4104	Energy Management, Economics and Policy Socio-Environmental Aspects of Mining	**S2**		
SUMMER	CEME 4005	Integrated Natural Hazard Risk Management	**WINTER**	ENTREP 3006	Energy Management, Economics and Policy

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Semester 1 Start

Renewable Energy Major

Year 1				
S 1	MATHS 1011 Mathematics IA ☐	ENG 1002 Programming (Matlab and C) ☐	^ ENG 1001 Introduction to Engineering ☐	CEME 1001 Introduction to Environmental Engineering ☐
S 2	MATHS 1012 Mathematics IB ☐	ENV BIOL 1002 Ecological Issues I ☐	CEME 1002 Introduction to Infrastructure ☐	CEME 1003 Resources and Energy in a Circular Economy ☐
Year 2				
S 1	MATHS 2106 Differential Equations for Engineers II ☐	CEME 2003 Civil Engineering Hydraulics ☐	CEME 2004 Introduction to Geo-engineering ☐	ELEC ENG 1101 Electronic Systems ☐
S 2	MATHS 2107 Statistics & Numerical Methods II ☐	CEME 2005 Transportation Engineering & Survey ☐	CEME 2006 Climate & Environmental Change Impact Modelling ☐	#Level II or III Mathematics Elective ☐
Year 3				
S 1	ENG 3004 Systems Engineering and Industry Practice ☐	CEME 3004 Hydrology for Engineers ☐	GEOG 2129 Introductory Geographic Information Systems ☐	CHEM ENG 2017 Transport Processes in the Environment ☐
S 2	ENG 3005 Research Method & Project Management ☐	CEME 3005 Advanced Civil Engineering Hydraulics ☐	CEME 3007 Integrated Environment Planning & Impact Assessment ☐	#Level II or III Mathematics Elective ☐
Internship				
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Year 4				
S 1	ENG 4001A Research Project Part A ☐	Environmental & Climate Solutions Elective – Set 1 or 2 (see elective table) ☐	CEME 4008 Soil and Ground Water Remediation ☐	#Level II or III Mathematics Elective ☐
S 2	ENG 4001B Research Project Part B ☐	CEME 4010 Designing Water Resource Systems for Urban Environments ☐	CEME 4009 Decision Making for Sustainable Solutions ☐	#Level II or III Mathematics Elective ☐

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Year 5				
S 1	MECH ENG 4064 Renewable Power Technologies ☐	Environmental & Climate Solutions Elective – Set 1 or 2 (see elective table) ☐	#Level III Mathematics Elective ☐	#Level III Mathematics Elective ☐
S 2	CHEM ENG 4048 Biofuels, Biomass and Wastes ☐	ELEC ENG 4111 Distributed Generation Technologies ☐	#Level III Mathematics Elective ☐	#Level III Mathematics Elective ☐

Core Courses	Double Degree Courses	Elective	Major Courses

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CHOOSE FROM THE FOLLOWING ENVIRONMENTAL AND CLIMATE SOLUTIONS ELECTIVES – SET 1					
S1	GEOG 2139	Environmental Management	**S2**	ENTREP 3000 GEOG 2135 GEOG 2142 GEOLOGY 3502 LAW 2511	Innovation and Creativity Urban Futures Climate Change Mineral and Energy Resources III Environmental Law
SUMMER	ENTREP 3000	Innovation and Creativity			
CHOOSE FROM THE FOLLOWING ENVIRONMENTAL AND CLIMATE SOLUTIONS ELECTIVES – SET 2					
S1	ENTREP 3006 MINING 4104	Energy Management, Economics and Policy Socio-Environmental Aspects of Mining	**S2**	CEME 4006	Climate Risk and Resilience
SUMMER	CEME 4005	Integrated Natural Hazard Risk Management	**WINTER**	ENTREP 3006	Energy Management, Economics and Policy

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Smart Technologies Major

Year 1				
S 1	MATHS 1011 Mathematics IA ☐	ENG 1002 Programming (Matlab and C) ☐	^ ENG 1001 Introduction to Engineering ☐	CEME 1001 Introduction to Environmental Engineering ☐
S 2	MATHS 1012 Mathematics IB ☐	ENV BIOL 1002 Ecological Issues I ☐	CEME 1002 Introduction to Infrastructure ☐	CEME 1003 Resources and Energy in a Circular Economy ☐
Year 2				
S 1	MATHS 2106 Differential Equations for Engineers II ☐	CEME 2003 Civil Engineering Hydraulics ☐	CEME 2004 Introduction to Geo-engineering ☐	#Level II or III Mathematics Elective ☐
S 2	MATHS 2107 Statistics & Numerical Methods II ☐	CEME 2005 Transportation Engineering & Survey ☐	CEME 2006 Climate & Environmental Change Impact Modelling ☐	COMP SCI 1102 Object Oriented Programming ☐
Year 3				
S 1	ENG 3004 Systems Engineering and Industry Practice ☐	CEME 3004 Hydrology for Engineers ☐	GEOG 2129 Introductory Geographic Information Systems ☐	CHEM ENG 2017 Transport Processes in the Environment ☐
S 2	ENG 3005 Research Method & Project Management ☐	CEME 3005 Advanced Civil Engineering Hydraulics ☐	CEME 3007 Integrated Environment Planning & Impact Assessment ☐	COMP SCI 2103 Algorithm Design & Data Structures ☐
Internship				
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Year 4				
S 1	ENG 4001A Research Project Part A ☐	Environmental & Climate Solutions Elective – Set 2 (see elective table) ☐	#Level II or III Mathematics Elective ☐	#Level II or III Mathematics Elective ☐
S 2	ENG 4001B Research Project Part B ☐	MECH ENG 3032 Micro-Controller Programming ☐	CEME 4010 Designing Water Resource Systems for Urban Environments ☐	CEME 4009 Decision Making for Sustainable Solutions ☐

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Year 5				
S 1	COMP SCI 3001 Computer Networks & Applications ☐	CEME 4008 Soil and Ground Water Remediation ☐	#Level II or III Mathematics Elective ☐	#Level III Mathematics Elective ☐
S 2	COMP SCI 4412 Secure Software Engineering ☐	#Level III Mathematics Elective ☐	#Level III Mathematics Elective ☐	#Level III Mathematics Elective ☐

Core Courses	Double Degree Courses	Elective	Major Courses

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CHOOSE FROM THE FOLLOWING ENVIRONMENTAL AND CLIMATE SOLUTIONS ELECTIVES – SET 2					
S1	ENTREP 3006 MINING 4104	Energy Management, Economics and Policy Socio-Environmental Aspects of Mining	**S2**	CEME 4006	Climate Risk and Resilience
SUMMER	CEME 4005	Integrated Natural Hazard Risk Management	**WINTER**	ENTREP 3006	Energy Management, Economics and Policy

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