

Bachelor of Engineering (Honours) (Electrical and Electronic) with Bachelor of Mathematical and Computer Sciences – Mathematics Major Study Plans — Semester 1 Start

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

Year 1				
S 1	^ENG 1001 Introduction to Engineering <input type="checkbox"/>	ELEC ENG 1100 Analog Electronics <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	MATHS 1011 Mathematics IA <input type="checkbox"/>
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics <input type="checkbox"/>	ELEC ENG 1102 Digital Electronics <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>	MATHS 1012 Mathematics IB <input type="checkbox"/>
Year 2				
S 1	ELEC ENG 2100 Digital Systems <input type="checkbox"/>	ELEC ENG 2101 Electronic Circuits <input type="checkbox"/>	ELEC ENG 2102 Electric Energy Conversion <input type="checkbox"/>	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>
S 2	ELEC ENG 2103 Design & Innovation <input type="checkbox"/>	ELEC ENG 2104 Digital Signal Processing <input type="checkbox"/>	ELEC ENG 2106 Vector Calculus & Electromagnetics <input type="checkbox"/>	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>
Year 3				
S 1	ELEC ENG 3103 Engineering Electromagnetics <input type="checkbox"/>	ELEC ENG 3101 Control <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>
S 2	ELEC ENG 3104 Electric Drive Systems <input type="checkbox"/>	ELEC ENG 3110 Electric Power Systems <input type="checkbox"/>	~Level II or III Mathematics Elective <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 during the course of their studies – see note below elective table.				
Year 4				
S 1	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
S 2	ELEC ENG 4105 Real-Time and Embedded Systems <input type="checkbox"/>	ELEC ENG 4106 Radio Frequency Systems <input type="checkbox"/>	ENG 3005 Research Method and Project Management <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
Year 5				
S 1	ENG 4001A Research Project Part A <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>
S 2	ENG 4001B Research Project Part B <input type="checkbox"/>	ELEC ENG 4100 Business Management Systems <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>

Core Course	Elective (see table)	Double Degree Courses
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^ Unless exempted, International students are required to take ENG 1011 Introduction to Engineering - EAL in lieu of ENG 1001 Introduction to Engineering.

~ Mathematics Electives may be chosen from the courses listed in the Program Rules for the Bachelor of Mathematics and Computer Sciences: <https://calendar.adelaide.edu.au/faculty/ecms>

Electives Table

CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ENGINEERING ELECTIVES					
S1	COMP SCI 2103	Algorithm Design & Data Structures	S2	COMP SCI 2103	Algorithm Design & Data Structures
	COMP SCI 3001	Computer Networks & Applications		COMP SCI 3006	Software Engineering & Project
	ELEC ENG 4058	Power Quality & Condition Monitoring		ELEC ENG 3108	Telecommunications Principles
	ELEC ENG 4063	Communications		ELEC ENG 4061	Image Processing
	ELEC ENG 4069	Radar Principles & Systems (not offered 2021)		ELEC ENG 4067	Antennas and Propagation
	ELEC ENG 4109	Digital Microelectronics		ELEC ENG 4087	Electricity Market and Power System Operations
	ELEC ENG 4112	Signal Processing Applications (not offered 2021)		ELEC ENG 4107	Autonomous Systems
		ELEC ENG 4111	Distributed Generation Technology		
		ELEC ENG 4115	Biomedical Instrumentation		

NOTES

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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

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

Bachelor of Engineering (Honours) (Electrical and Electronic) - Communication Systems Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major

Year 1				
S 1	^ENG 1001 Introduction to Engineering <input type="checkbox"/>	ELEC ENG 1100 Analog Electronics <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	MATHS 1011 Mathematics IA <input type="checkbox"/>
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics <input type="checkbox"/>	ELEC ENG 1102 Digital Electronics <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>	MATHS 1012 Mathematics IB <input type="checkbox"/>
Year 2				
S 1	ELEC ENG 2100 Digital Systems <input type="checkbox"/>	ELEC ENG 2101 Electronic Circuits <input type="checkbox"/>	ELEC ENG 2102 Electric Energy Conversion <input type="checkbox"/>	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>
S 2	ELEC ENG 2103 Design & Innovation <input type="checkbox"/>	ELEC ENG 2104 Digital Signal Processing <input type="checkbox"/>	ELEC ENG 2106 Vector Calculus & Electromagnetics <input type="checkbox"/>	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>
Year 3				
S 1	ELEC ENG 3103 Engineering Electromagnetics <input type="checkbox"/>	ELEC ENG 3101 Control <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>
S 2	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>	ELEC ENG 3108 Telecommunications Principles <input type="checkbox"/>	~Level II or III Mathematics Elective <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 during the course of their studies – see note below elective table.				
Year 4				
S 1	COMP SCI 3001 Computer Networks & Applications <input type="checkbox"/>	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
S 2	ELEC ENG 4054 Telecommunication Systems <input type="checkbox"/>	ELEC ENG 4106 Radio Frequency Systems <input type="checkbox"/>	ENG 3005 Research Method and Project Management <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
Year 5				
S 1	ENG 4001A Research Project Part A <input type="checkbox"/>	ELEC ENG 4063 Communications <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>
S 2	ENG 4001B Research Project Part B <input type="checkbox"/>	ELEC ENG 4100 Business Management Systems <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>

Core Course	Major course	Elective (see table)	Double Degree Courses
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~ Mathematics Electives may be chosen from the courses listed in the Program Rules for the Bachelor of Mathematics and Computer Sciences: <https://calendar.adelaide.edu.au/faculty/ecms>

Electives Table

CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ENGINEERING ELECTIVES					
S1	COMP SCI 3007	Artificial Intelligence	S2	ELEC ENG 4061	Image Processing
	ELEC ENG 4069	Radar Principles & Systems (<i>not offered 2021</i>)		ELEC ENG 4067	Antennas and Propagation
	ELEC ENG 4109	Digital Microelectronics		ELEC ENG 4105	Real Time & Embedded Systems
	ELEC ENG 4112	Signal Processing Applications (<i>not offered 2021</i>)			

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

Year 1				
S1	[^] ENG 1001 Introduction to Engineering <input type="checkbox"/>	ELEC ENG 1100 Analog Electronics <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	MATHS 1011 Mathematics IA <input type="checkbox"/>
S2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics <input type="checkbox"/>	ELEC ENG 1102 Digital Electronics <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>	MATHS 1012 Mathematics IB <input type="checkbox"/>
Year 2				
S1	ELEC ENG 2100 Digital Systems <input type="checkbox"/>	ELEC ENG 2101 Electronic Circuits <input type="checkbox"/>	ELEC ENG 2102 Electric Energy Conversion <input type="checkbox"/>	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>
S2	ELEC ENG 2103 Design & Innovation <input type="checkbox"/>	ELEC ENG 2104 Digital Signal Processing <input type="checkbox"/>	ELEC ENG 2106 Vector Calculus & Electromagnetics <input type="checkbox"/>	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>
Year 3				
S1	ELEC ENG 3103 Engineering Electromagnetics <input type="checkbox"/>	ELEC ENG 3101 Control <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>
S2	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>	ELEC ENG 4105 Real Time & Embedded Systems <input type="checkbox"/>	~Level II or III Mathematics Elective <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 during the course of their studies – see note below elective table.				
Year 4				
S1	COMP SCI 3001 Computer Networks & Applications <input type="checkbox"/>	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
S2	COMP SCI 3004 Operating Systems <input type="checkbox"/>	ENG 3005 Research Method and Project Management <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
Year 5				
S1	ENG 4001A Research Project Part A <input type="checkbox"/>	COMP SCI 3005 Computer Architecture <input type="checkbox"/>	ELEC ENG 4109 Digital Microelectronics <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>
S2	ENG 4001B Research Project Part B <input type="checkbox"/>	ELEC ENG 4100 Business Management Systems <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>

Core Course	Major course	Elective (see table)	Double Degree Courses
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Electives Table

CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ENGINEERING ELECTIVES					
S1	COMP SCI 3007	Artificial Intelligence	S2	COMP SCI 3006	Software Engineering & Project
	COMP SCI 3308	Cybersecurity Fundamentals		COMP SCI 3307	Secure Programming
	ELEC ENG 4112	Signal Processing Applications <i>(not offered 2021)</i>		ELEC ENG 3104	Electric Drive Systems
			ELEC ENG 3108	Telecommunications Principles	
			ELEC ENG 4061	Image Processing	
			ELEC ENG 4106	Radio Frequency Systems	

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Bachelor of Engineering (Honours) (Electrical and Electronic) - Cybersecurity Major
with Bachelor of Mathematical and Computer Sciences - Mathematics Major

Year 1				
S1	[^] ENG 1001 Introduction to Engineering <input type="checkbox"/>	ELEC ENG 1100 Analog Electronics <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	MATHS 1011 Mathematics IA <input type="checkbox"/>
S2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics <input type="checkbox"/>	ELEC ENG 1102 Digital Electronics <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>	MATHS 1012 Mathematics IB <input type="checkbox"/>
Year 2				
S1	ELEC ENG 2100 Digital Systems <input type="checkbox"/>	ELEC ENG 2101 Electronic Circuits <input type="checkbox"/>	ELEC ENG 2102 Electric Energy Conversion <input type="checkbox"/>	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>
S2	ELEC ENG 2103 Design & Innovation <input type="checkbox"/>	ELEC ENG 2104 Digital Signal Processing <input type="checkbox"/>	ELEC ENG 2106 Vector Calculus & Electromagnetics <input type="checkbox"/>	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>
Year 3				
S1	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>	ELEC ENG 3101 Control <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>
S2	COMP SCI 2000 Computer Systems <input type="checkbox"/>	COMP SCI 2201 Algorithm & Data Structure Analysis <input type="checkbox"/>	~Level II or III Mathematics Elective <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 during the course of their studies – see note below elective table.				
Year 4				
S1	COMP SCI 3308 Cybersecurity Fundamentals <input type="checkbox"/>	ELEC ENG 3103 Engineering Electromagnetics <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
S2	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	ENG 3005 Research Method and Project Management <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
Year 5				
S1	ENG 4001A Research Project Part A <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>
S2	ENG 4001B Research Project Part B <input type="checkbox"/>	COMP SCI 3004 Operating Systems UG <input type="checkbox"/>	COMP SCI 3307 Secure Programming <input type="checkbox"/>	ELEC ENG 4100 Business Management Systems <input type="checkbox"/>

Core Course	Major course	Elective (see table)	Double Degree Courses
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Electives Table

CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ENGINEERING ELECTIVES					
S1	COMP SCI 3001	Computer Networks & Applications	S2	COMP SCI 3006	Software Engineering & Project
	ELEC ENG 4063	Communications		ELEC ENG 3104	Electric Drive Systems
	ELEC ENG 4109	Digital Microelectronics		ELEC ENG 3108	Telecommunications Principles
			ELEC ENG 4061	Image Processing	
			ELEC ENG 4105	Real Time & Embedded Systems	
			ELEC ENG 4106	Radio Frequency Systems	

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.

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

Year 1								
S1	^ENG 1001 Introduction to Engineering	<input type="checkbox"/>	ELEC ENG 1100 Analog Electronics	<input type="checkbox"/>	ENG 1002 Programming (Matlab and C)	<input type="checkbox"/>	MATHS 1011 Mathematics IA	<input type="checkbox"/>
S2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics	<input type="checkbox"/>	ELEC ENG 1102 Digital Electronics	<input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming	<input type="checkbox"/>	MATHS 1012 Mathematics IB	<input type="checkbox"/>
Year 2								
S1	ELEC ENG 2100 Digital Systems	<input type="checkbox"/>	ELEC ENG 2101 Electronic Circuits	<input type="checkbox"/>	ELEC ENG 2102 Electric Energy Conversion	<input type="checkbox"/>	MATHS 2106 Differential Equations for Engineers II	<input type="checkbox"/>
S2	ELEC ENG 2103 Design & Innovation	<input type="checkbox"/>	ELEC ENG 2104 Digital Signal Processing	<input type="checkbox"/>	ELEC ENG 2106 Vector Calculus & Electromagnetics	<input type="checkbox"/>	MATHS 2107 Statistics & Numerical Methods II	<input type="checkbox"/>
Year 3								
S1	ELEC ENG 3103 Engineering Electromagnetics	<input type="checkbox"/>	ELEC ENG 3101 Control	<input type="checkbox"/>	~Level II or III Mathematics Elective	<input type="checkbox"/>	~Level II or III Mathematics Elective	<input type="checkbox"/>
S2	ENG 3305 Human Factors in Decision Making	<input type="checkbox"/>	ELEC ENG 4107 Autonomous Systems	<input type="checkbox"/>	~Level II or III Mathematics Elective	<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 during the course of their studies – see note below elective table.								
Year 4								
S1	POLIS 1104 Introduction to Comparative Politics	<input type="checkbox"/>	ENG 3004 Systems Engineering and Industry Practice	<input type="checkbox"/>	~Level III Mathematics Elective	<input type="checkbox"/>	~Level III Mathematics Elective	<input type="checkbox"/>
S2	ELEC ENG 4106 Radio Frequency Systems	<input type="checkbox"/>	ENG 3005 Research Method and Project Management	<input type="checkbox"/>	~Level III Mathematics Elective	<input type="checkbox"/>	~Level III Mathematics Elective	<input type="checkbox"/>
Year 5								
S1	ENG 4001A Research Project Part A	<input type="checkbox"/>	E&E Engineering Elective (see elective table)	<input type="checkbox"/>	E&E Engineering Elective (see elective table)	<input type="checkbox"/>	E&E Engineering Elective (see elective table)	<input type="checkbox"/>
S2	ENG 4001B Research Project Part B	<input type="checkbox"/>	ENG 4010 Defence Leadership	<input type="checkbox"/>	ENG 4020 Complex Systems Engineering	<input type="checkbox"/>	ELEC ENG 4100 Business Management Systems	<input type="checkbox"/>

Core Course	Major course	Elective (see table)	Double Degree Courses
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Electives Table

CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ENGINEERING ELECTIVES					
S1	COMP SCI 2103	Algorithm Design & Data Structures	S2	COMP SCI 2103	Algorithm Design & Data Structures
	COMP SCI 3001	Computer Networks & Applications		ELEC ENG 3108	Telecommunications Principles
	ELEC ENG 4063	Communications		ELEC ENG 4061	Image Processing
	ELEC ENG 4069	Radar Principles & Systems (not offered 2021)		ELEC ENG 4067	Antennas and Propagation
	ELEC ENG 4109	Digital Microelectronics		ELEC ENG 4111	Distributed Generation Technology
	ELEC ENG 4112	Signal Processing Applications (not offered 2021)			

NOTES

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Bachelor of Engineering (Honours) (Electrical and Electronic) - Medical Technologies Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major

Year 1				
S1	[^] ENG 1001 Introduction to Engineering <input type="checkbox"/>	ELEC ENG 1100 Analog Electronics <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	MATHS 1011 Mathematics IA <input type="checkbox"/>
S2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics <input type="checkbox"/>	ELEC ENG 1102 Digital Electronics <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>	MATHS 1012 Mathematics IB <input type="checkbox"/>
Year 2				
S1	ELEC ENG 2100 Digital Systems <input type="checkbox"/>	ELEC ENG 2101 Electronic Circuits <input type="checkbox"/>	ELEC ENG 2102 Electric Energy Conversion <input type="checkbox"/>	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>
S2	ELEC ENG 2103 Design & Innovation <input type="checkbox"/>	ELEC ENG 2104 Digital Signal Processing <input type="checkbox"/>	ELEC ENG 2106 Vector Calculus & Electromagnetics <input type="checkbox"/>	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>
Year 3				
S1	ANAT SC 1102 Human Anatomy and Physiology IA <input type="checkbox"/>	ENG 3101 Introduction to Medical Technologies <input type="checkbox"/>	ELEC ENG 3101 Control <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>
S2	ANAT SC 2009 Musculoskeletal Anatomy <input type="checkbox"/>	ELEC ENG 4115 Biomedical Instrumentation <input type="checkbox"/>	~Level II or III Mathematics Elective <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 during the course of their studies – see note below elective table.				
Year 4				
S1	PHYSIOL 2510 Physiology IIA: Heart, Lung & Neuromuscular Systems <input type="checkbox"/>	ELEC ENG 3103 Engineering Electromagnetics <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
S2	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	ENG 3005 Research Method and Project Management <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
Year 5				
S1	ENG 4001A Research Project Part A <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
S2	ENG 4001B Research Project Part B <input type="checkbox"/>	MECH ENG 4101 Biomechanical Engineering <input type="checkbox"/>	ELEC ENG 4100 Business Management Systems <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>

Core Course	Major course	Elective (see table)	Double Degree Courses
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[~] Mathematics Electives may be chosen from the courses listed in the Program Rules for the Bachelor of Mathematics and Computer Sciences: <https://calendar.adelaide.edu.au/faculty/ecms>

Electives Table

CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ENGINEERING ELECTIVES					
S1	ANAT SC 2006	Foundations of Human Neuroanatomy	S2	COMP SCI 2103	Algorithm Design & Data Structures
	ANAT SC 2109	Biology and Development of Human Tissues		ELEC ENG 3108	Telecommunications Principles
	COMP SCI 2103	Algorithm Design & Data Structures		ELEC ENG 4061	Image Processing
	ELEC ENG 4063	Communications		ELEC ENG 4067	Antennas and Propagation
	ELEC ENG 4109	Digital Microelectronics			
	ELEC ENG 4112	Signal Processing Applications <i>(not offered 2021)</i>			

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.

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

Year 1				
S1	[^] ENG 1001 Introduction to Engineering <input type="checkbox"/>	ELEC ENG 1100 Analog Electronics <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	MATHS 1011 Mathematics IA <input type="checkbox"/>
S2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics <input type="checkbox"/>	ELEC ENG 1102 Digital Electronics <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>	MATHS 1012 Mathematics IB <input type="checkbox"/>
Year 2				
S1	ELEC ENG 2100 Digital Systems <input type="checkbox"/>	ELEC ENG 2101 Electronic Circuits <input type="checkbox"/>	ELEC ENG 2102 Electric Energy Conversion <input type="checkbox"/>	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>
S2	ELEC ENG 2103 Design & Innovation <input type="checkbox"/>	ELEC ENG 2104 Digital Signal Processing <input type="checkbox"/>	ELEC ENG 2106 Vector Calculus & Electromagnetics <input type="checkbox"/>	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>
Year 3				
S1	ELEC ENG 3103 Engineering Electromagnetics <input type="checkbox"/>	ELEC ENG 3101 Control <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>
S2	ELEC ENG 3104 Electric Drive Systems <input type="checkbox"/>	ELEC ENG 3110 Electric Power Systems <input type="checkbox"/>	~Level II or III Mathematics Elective <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 during the course of their studies – see note below elective table.				
Year 4				
S1	MECH ENG 4064 Renewable Power Technologies <input type="checkbox"/>	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
S2	ELEC ENG 4111 Distributed Generation Technologies <input type="checkbox"/>	ENG 3005 Research Method and Project Management <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
Year 5				
S1	ENG 4001A Research Project Part A <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>
S2	ENG 4001B Research Project Part B <input type="checkbox"/>	CHEM ENG 4048 Biofuels, Biomass and Wastes <input type="checkbox"/>	ELEC ENG 4100 Business Management Systems <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>

Core Course	Major course	Elective (see table)	Double Degree Courses
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[^] Unless exempted, International students are required to take ENG 1011 Introduction to Engineering - EAL in lieu of ENG 1001 Introduction to Engineering.

[~] Mathematics Electives may be chosen from the courses listed in the Program Rules for the Bachelor of Mathematics and Computer Sciences: <https://calendar.adelaide.edu.au/faculty/ecms>

Electives Table

CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ENGINEERING ELECTIVES					
S1	COMP SCI 2103	Algorithm Design & Data Structures	S2	COMP SCI 2103	Algorithm Design & Data Structures
	COMP SCI 3001	Computer Networks & Applications		ELEC ENG 3108	Telecommunications Principles
	ELEC ENG 4058	Power Quality & Condition Monitoring		ELEC ENG 4087	Electricity Market and Power System Operations
	ELEC ENG 4109	Digital Microelectronics		MECH ENG 4145	Sustainable Thermal Technologies (<i>not offered 2021</i>)

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.

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

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

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

Year 1				
S1	[^] ENG 1001 Introduction to Engineering <input type="checkbox"/>	ELEC ENG 1100 Analog Electronics <input type="checkbox"/>	ENG 1002 Programming (Matlab and C) <input type="checkbox"/>	MATHS 1011 Mathematics IA <input type="checkbox"/>
S2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics <input type="checkbox"/>	ELEC ENG 1102 Digital Electronics <input type="checkbox"/>	COMP SCI 1102 Object Oriented Programming <input type="checkbox"/>	MATHS 1012 Mathematics IB <input type="checkbox"/>
Year 2				
S1	ELEC ENG 2100 Digital Systems <input type="checkbox"/>	ELEC ENG 2101 Electronic Circuits <input type="checkbox"/>	ELEC ENG 2102 Electric Energy Conversion <input type="checkbox"/>	MATHS 2106 Differential Equations for Engineers II <input type="checkbox"/>
S2	ELEC ENG 2103 Design & Innovation <input type="checkbox"/>	ELEC ENG 2104 Digital Signal Processing <input type="checkbox"/>	ELEC ENG 2106 Vector Calculus & Electromagnetics <input type="checkbox"/>	MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/>
Year 3				
S1	ELEC ENG 3103 Engineering Electromagnetics <input type="checkbox"/>	ELEC ENG 3101 Control <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>	~Level II or III Mathematics Elective <input type="checkbox"/>
S2	COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/>	MECH ENG 3032 Micro-Controller Programming <input type="checkbox"/>	~Level II or III Mathematics Elective <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 during the course of their studies – see note below elective table.				
Year 4				
S1	COMP SCI 3001 Computer Networks & Applications <input type="checkbox"/>	ENG 3004 Systems Engineering and Industry Practice <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
S2	ELEC ENG 4107 Autonomous Systems <input type="checkbox"/>	ENG 3005 Research Method and Project Management <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>	~Level III Mathematics Elective <input type="checkbox"/>
Year 5				
S1	ENG 4001A Research Project Part A <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>
S2	ENG 4001B Research Project Part B <input type="checkbox"/>	COMP SCI 4092 Mobile and Wireless Systems <input type="checkbox"/>	ELEC ENG 4100 Business Management Systems <input type="checkbox"/>	E&E Engineering Elective (see elective table) <input type="checkbox"/>

Core Course	Major course	Elective (see table)	Double Degree Courses
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[^] Unless exempted, International students are required to take ENG 1011 Introduction to Engineering - EAL in lieu of ENG 1001 Introduction to Engineering.

[~] Mathematics Electives may be chosen from the courses listed in the Program Rules for the Bachelor of Mathematics and Computer Sciences: <https://calendar.adelaide.edu.au/faculty/ecms>

Electives Table

CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ENGINEERING ELECTIVES					
S1	ELEC ENG 4063	Communications	S2	COMP SCI 3006	Software Engineering and Project
	ELEC ENG 4069	Radar Principles & Systems (not offered 2021)		ELEC ENG 3108	Telecommunications Principles
	ELEC ENG 4109	Digital Microelectronics		ELEC ENG 4061	Image Processing
	ELEC ENG 4112	Signal Processing Applications (not offered 2021)		ELEC ENG 4067	Antennas and Propagation

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.

Program Rules: For academic program rules please refer to the following website:
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