

School of Electrical and Electronic Engineering

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

Semester 1 Start

Bachelor of Engineering (Honours) (Electrical and Electronic) with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Renewable Energy Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Smart Technologies Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Defence Systems Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Defence Systems Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Medical Technologies Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Communication Systems Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Computer Engineering Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Computer Engineering Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Computer Engineering Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Computer Engineering Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major Bachelor of Engineering (Honours) (Electrical and Electronic) - Cybersecurity Major with Bachelor of Mathematical and Computer Sciences - Mathematics Major



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		ELEC ENG 1100 Analog Electronics		ENG 1002 Programming (Matlab and C)		#MATHS 1011 Mathematics IA				
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics		ELEC ENG 1102 Digital Electronics		COMP SCI 1102 Object Oriented Programming		MATHS 1012 Mathematics IB				
	Year 2										
S 1	ELEC ENG 2100 Digital Systems		ELEC ENG 2101 Electronic Circuits		ELEC ENG 2102 Electric Energy Conversion		MATHS 2106 Differential Equations for Engineers II				
S 2	ELEC ENG 2103 Design & Innovation		ELEC ENG 2104 Digital Signal Processing		ELEC ENG 2106 Vector Calculus & Electromagnetics		MATHS 2107 Statistics & Numerical Methods II				
	Year 3										
S 1	ELEC ENG 3100 Systems Engineering		ELEC ENG 3101 Control		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
S 2	ELEC ENG 3104 Electric Drive Systems		ELEC ENG 3110 Electric Power Systems		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
			Ir	ntern	ship						
	All Engineering students commencing from	n 201	9 are required to complete a minimum o	f 8 we	eks (6 units) of internship during the course	of th	eir studies – see note below elective table	·.			
				Year	4						
S 1	ELEC ENG 3103 Engineering Electromagnetics		ENG 3004 Interdisciplinary Professional Practice		Level III Mathematics Elective		Level III Mathematics Elective				
S 2	ELEC ENG 4105 Real-Time and Embedded Systems		ELEC ENG 4106 Radio Frequency Systems		ENG 3005 Research Method and Project Management		Level III Mathematics Elective				
				Year	5						
S 1	ENG 4001A Research Project Part A		E&E Engineering Elective (see elective table)		E&E Engineering Elective (see elective table)		E&E Engineering Elective (see elective table)				
S 2	ENG 4001B Research Project Part B		ELEC ENG 4100 Business Management Systems		E&E Engineering Elective		Level III Mathematics Elective				



Electives Table

	CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ELECTIVES										
S	COMP SCI 2103 Algorithm Design & Data Structures		COMP SCI 3001 Computer Networks & Applications		ELEC ENG 4058 Power Quality & Condition Monitoring		ELEC ENG 4061 Image Processing				
1			ELEC ENG 4069 Radar Principles & Systems NOT OFFERED 2020		ELEC ENG 4109 Digital Microelectronics						
s	COMP SCI 2103 Algorithm Design & Data Structures		COMP SCI 3006 Software Engineering & Project		ELEC ENG 3108 Telecommunications Principles		ELEC ENG 4067 Antennas and Propagation				
2	ELEC ENG 4107 Autonomous Systems		ELEC ENG 4111 Distributed Generation Technology		ELEC ENG 4115 Medical Instrumentation and Imaging						

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.

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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through <u>Careers Service</u>. Register with CareerHub to access a database where opportunities are posted.

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

Information and Enrolment Advice:

Ask ECMS Email: <u>askecms@adelaide.edu.au</u> Website: https://ecms.adelaide.edu.au/study-with-us/student-support



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

				Year	1						
S 1	^ENG 1001 Introduction to Engineering		ELEC ENG 1100 Analog Electronics		ENG 1002 Programming (Matlab and C)		#MATHS 1011 Mathematics IA				
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics		ELEC ENG 1102 Digital Electronics		COMP SCI 1102 Object Oriented Programming		MATHS 1012 Mathematics IB				
	Year 2										
S 1	ELEC ENG 2100 Digital Systems		ELEC ENG 2101 Electronic Circuits		ELEC ENG 2102 Electric Energy Conversion		MATHS 2106 Differential Equations for Engineers II				
S 2	ELEC ENG 2103 Design & Innovation		ELEC ENG 2104 Digital Signal Processing		ELEC ENG 2106 Vector Calculus & Electromagnetics		MATHS 2107 Statistics & Numerical Methods II				
	Year 3										
S 1	ELEC ENG 3100 Systems Engineering		ELEC ENG 3101 Control		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
S 2	ELEC ENG 3104 Electric Drive Systems		ELEC ENG 3110 Electric Power Systems		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
			Ir	ntern	ship						
	All Engineering students commencing fror	n 201	9 are required to complete a minimum o	f 8 we	eks (6 units) of internship during the course	e of th	eir studies – see note below elective table	e.			
				Year	· 4						
S 1	ELEC ENG 3103 Engineering Electromagnetics		ENG 3004 Interdisciplinary Professional Practice		Level III Mathematics Elective		Level III Mathematics Elective				
S 2	ELEC ENG 4111 Distributed Generation Technologies		ENG 3005 Research Method and Project Management		Level III Mathematics Elective		Level III Mathematics Elective				
				Year	· 5						
S 1	ENG 4001A Research Project Part A		MECH ENG 4064 Renewable Power Technologies		E&E Engineering Elective (see elective table)		E&E Engineering Elective (see elective table)				
S 2	ENG 4001B Research Project Part B		ELEC ENG 4100 Business Management Systems		CHEM ENG 4048 Biofuels, Biomass and Wastes		E&E Engineering Elective (see elective table)				



Electives Table

	CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ELECTIVES										
S 1	COMP SCI 2103 Algorithm Design & Data Structures		COMP SCI 3001 Computer Networks & Applications		ELEC ENG 4058 Power Quality & Condition Monitoring		ELEC ENG 4109 Digital Microelectronics				
S 2	COMP SCI 2103 Algorithm Design & [Data Structures		ELEC ENG 3108 Telecommunications Principles		MECH ENG 4145 Sustainable Thermal Technologies		ELEC ENG 4087 Electricity Market and Power System Operations				

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.

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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through <u>Careers Service</u>. Register with CareerHub to access a database where opportunities are posted.

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



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

	Year 1										
S 1	^ENG 1001 Introduction to Engineering		ELEC ENG 1100 Analog Electronics		ENG 1002 Programming (Matlab and C)		#MATHS 1011 Mathematics IA				
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics		ELEC ENG 1102 Digital Electronics		COMP SCI 1102 Object Oriented Programming		MATHS 1012 Mathematics IB				
				Year	2						
S 1	ELEC ENG 2100 Digital Systems		ELEC ENG 2101 Electronic Circuits		ELEC ENG 2102 Electric Energy Conversion		MATHS 2106 Differential Equations for Engineers II				
S 2	ELEC ENG 2103 Design & Innovation		ELEC ENG 2104 Digital Signal Processing		ELEC ENG 2106 Vector Calculus & Electromagnetics		MATHS 2107 Statistics & Numerical Methods II				
	Year 3										
S 1	ELEC ENG 3100 Systems Engineering		ELEC ENG 3101 Control		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
S 2	COMP SCI 2103 Algorithm Design & Data Structures		MECH ENG 3032 Micro-Controller Programming		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
			Ir	ntern	ship						
	All Engineering students commencing fron	n 201	9 are required to complete a minimum o	f 8 we	eks (6 units) of internship during the course	e of th	eir studies – see note below elective table	e.			
				Year	· 4						
S 1	ELEC ENG 3103 Engineering Electromagnetics		ENG 3004 Interdisciplinary Professional Practice		Level III Mathematics Elective		Level III Mathematics Elective				
S 2	ELEC ENG 4107 Autonomous Systems		ENG 3005 Research Method and Project Management		Level III Mathematics Elective		Level III Mathematics Elective				
				Year	· 5						
S 1	ENG 4001A Research Project Part A		COMP SCI 3001 Computer Networks & Applications		E&E Engineering Elective (see elective table)		E&E Engineering Elective (see elective table)				
S 2	ENG 4001B Research Project Part B		ELEC ENG 4100 Business Management Systems		COMP SCI 4092 Mobile and Wireless Systems		E&E Engineering Elective (see elective table)				



Electives Table

	CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ELECTIVES										
S 1	ELEC ENG 4061 Image Processing		ELEC ENG 4063 Communications		ELEC ENG 4069 Radar Principles & Systems NOT OFFERED 2020		ELEC ENG 4109 Digital Microelectronics				
S 2	COMP SCI 3006 Software Engineering & Project		ELEC ENG 3108 Telecommunications Principles		ELEC ENG 4067 Antennas and Propagation						

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.

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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through <u>Careers Service</u>. Register with CareerHub to access a database where opportunities are posted.

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



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

				Year	· 1						
S 1	^ENG 1001 Introduction to Engineering		ELEC ENG 1100 Analog Electronics		ENG 1002 Programming (Matlab and C)		#MATHS 1011 Mathematics IA				
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics		ELEC ENG 1102 Digital Electronics		COMP SCI 1102 Object Oriented Programming		MATHS 1012 Mathematics IB				
	Year 2										
S 1	ELEC ENG 2100 Digital Systems		ELEC ENG 2101 Electronic Circuits		ELEC ENG 2102 Electric Energy Conversion		MATHS 2106 Differential Equations for Engineers II				
S 2	ELEC ENG 2103 Design & Innovation		ELEC ENG 2104 Digital Signal Processing		ELEC ENG 2106 Vector Calculus & Electromagnetics		MATHS 2107 Statistics & Numerical Methods II				
	Year 3										
S 1	ELEC ENG 3100 Systems Engineering		ELEC ENG 3101 Control		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
S 2	ENG 3305 Human Factors in Decision Making		ELEC ENG 4107 Autonomous Systems		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
			Ir	ntern	ship						
	All Engineering students commencing from	201	9 are required to complete a minimum of	f 8 we	eks (6 units) of internship during the course	e of th	eir studies – see note below elective table.				
				Year	· 4						
S 1	ELEC ENG 3103 Engineering Electromagnetics		ENG 3004 Interdisciplinary Professional Practice		Level III Mathematics Elective		Level III Mathematics Elective				
S 2	ELEC ENG 4106 Radio Frequency Systems		ENG 3005 Research Method and Project Management		Level III Mathematics Elective		Level III Mathematics Elective				
				Year	· 5						
S 1	ENG 4001A Research Project Part A		POLIS 1104 Introduction to Comparative Politics		E&E Engineering Elective (see elective table)		E&E Engineering Elective (see elective table)				
S 2	ENG 4001B Research Project Part B		ELEC ENG 4100 Business Management Systems		ENG 4010 Defence Leadership		ENG 4020 Complex Systems Engineering				



Electives Table

	CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ELECTIVES										
S 1	COMP SCI 2103 Algorithm Design & Data Structures		COMP SCI 3001 Computer Networks & Applications		ELEC ENG 4109 Digital Microelectronics		ELEC ENG 4061 Image Processing				
	ELEC ENG 4063 Communications		ELEC ENG 4069 Radar Principles & Systems NOT OFFERED 2020								
S 2	COMP SCI 2103 Algorithm Design & Data Structures		ELEC ENG 3108 Telecommunications Principles		ELEC ENG 4067 Antennas and Propagation		ELEC ENG 4111 Distributed Generation Technology				

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.

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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through <u>Careers Service</u>. Register with CareerHub to access a database where opportunities are posted.

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



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

	Year 1										
S 1	^ENG 1001 Introduction to Engineering		ELEC ENG 1100 Analog Electronics		ENG 1002 Programming (Matlab and C)		#MATHS 1011 Mathematics IA				
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics		ELEC ENG 1102 Digital Electronics		COMP SCI 1102 Object Oriented Programming		MATHS 1012 Mathematics IB				
	Year 2										
S 1	ELEC ENG 2100 Digital Systems		ELEC ENG 2101 Electronic Circuits		ELEC ENG 2102 Electric Energy Conversion		MATHS 2106 Differential Equations for Engineers II				
S 2	ELEC ENG 2103 Design & Innovation		ELEC ENG 2104 Digital Signal Processing		ELEC ENG 2106 Vector Calculus & Electromagnetics		MATHS 2107 Statistics & Numerical Methods II				
	Year 3										
S 1	ANAT SC 1102 Human Anatomy and Physiology IA		ELEC ENG 3101 Control		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
S 2	ANAT SC 2009 Musculoskeletal Anatomy		ELEC ENG 4115 Medical Instrumentation and Imaging		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
			Ir	ntern	ship						
	All Engineering students commencing from	n 201	9 are required to complete a minimum of	f 8 we	eks (6 units) of internship during the course	e of th	eir studies – see note below elective table	2.			
				Year	4						
S 1	ELEC ENG 3100 Systems Engineering		ELEC ENG 3103 Engineering Electromagnetics		ENG 3101 Introduction to Medical Technologies		Level III Mathematics Elective				
S 2	ENG 3004 Interdisciplinary Professional Practice		ENG 3005 Research Method and Project Management		Level III Mathematics Elective		Level III Mathematics Elective				
				Year	5						
S 1	ENG 4001A Research Project Part A		PHYSIOL 2510 Physiology IIA: Heart, Lung & Neuromuscular Systems		E&E Engineering Elective (see elective table)		Level III Mathematics Elective				
S 2	ENG 4001B Research Project Part B		ELEC ENG 4100 Business Management Systems		E&E Engineering Elective (see elective table)		MECH ENG 4101 Biomechanical Engineering				



Electives Table

	CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ELECTIVES										
s	ANAT SC 2006 Foundations of Human Neuroanatomy		ANAT SC 2109 Biology and Development of Human Tissues		COMP SCI 2103 Algorithm Design & Data Structures		ELEC ENG 4109 Digital Microelectronics				
1	ELEC ENG 4061 Image Processing		ELEC ENG 4063 Communications								
S 2	COMP SCI 2103 Algorithm Design & Data Structures		ELEC ENG 3108 Telecommunications Principles		ELEC ENG 4067 Antennas and Propagation						

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.

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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through <u>Careers Service</u>. Register with CareerHub to access a database where opportunities are posted.

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



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		ELEC ENG 1100 Analog Electronics		ENG 1002 Programming (Matlab and C)		#MATHS 1011 Mathematics IA				
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics		ELEC ENG 1102 Digital Electronics		COMP SCI 1102 Object Oriented Programming		MATHS 1012 Mathematics IB				
	Year 2										
S 1	ELEC ENG 2100 Digital Systems		ELEC ENG 2101 Electronic Circuits		ELEC ENG 2102 Electric Energy Conversion		MATHS 2106 Differential Equations for Engineers II				
S 2	ELEC ENG 2103 Design & Innovation		ELEC ENG 2104 Digital Signal Processing		ELEC ENG 2106 Vector Calculus & Electromagnetics		MATHS 2107 Statistics & Numerical Methods II				
	Year 3										
S 1	ELEC ENG 3100 Systems Engineering		ELEC ENG 3101 Control		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
S 2	COMP SCI 2103 Algorithm Design & Data Structures		ELEC ENG 3108 Telecommunications Principles		Level II or III Mathematics Elective		Level II or III Mathematics Elective				
			Ir	ntern	ship						
	All Engineering students commencing from	201	9 are required to complete a minimum of	f 8 we	eks (6 units) of internship during the course	of th	eir studies – see note below elective table.				
				Year	· 4						
S 1	ELEC ENG 3103 Engineering Electromagnetics		ENG 3004 Interdisciplinary Professional Practice		Level III Mathematics Elective		Level III Mathematics Elective				
S 2	ELEC ENG 4054 Telecommunication Systems		ELEC ENG 4106 Radio Frequency Systems		ENG 3005 Research Method and Project Management		Level III Mathematics Elective				
				Year	· 5						
S 1	ENG 4001A Research Project Part A		COMP SCI 3001 Computer Networks & Applications		ELEC ENG 4063 Communications		E&E Engineering Elective (see elective table)				
S 2	ENG 4001B Research Project Part B		ELEC ENG 4100 Business Management Systems		E&E Engineering Elective (see elective table)		Level III Mathematics Elective				



Electives Table

	CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ELECTIVES										
S 1	COMP SCI 3007 Artificial Intelligence		ELEC ENG 4109 Digital Microelectronics		ELEC ENG 4061 Image Processing		ELEC ENG 4069 Radar Principles & Systems NOT OFFERED 2020				
S 2	ELEC ENG 4067 Antennas and Propagation		ELEC ENG 4105 Real Time & Embedded Systems								

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.

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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through <u>Careers Service</u>. Register with CareerHub to access a database where opportunities are posted.

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



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

	Year 1									
S 1	^ENG 1001 Introduction to Engineering		ELEC ENG 1100 Analog Electronics		ENG 1002 Programming (Matlab and C)		#MATHS 1011 Mathematics IA			
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics		ELEC ENG 1102 Digital Electronics		COMP SCI 1102 Object Oriented Programming		MATHS 1012 Mathematics IB			
	Year 2									
S 1	ELEC ENG 2100 Digital Systems		ELEC ENG 2101 Electronic Circuits		ELEC ENG 2102 Electric Energy Conversion		MATHS 2106 Differential Equations for Engineers II			
S 2	ELEC ENG 2103 Design & Innovation		ELEC ENG 2104 Digital Signal Processing		ELEC ENG 2106 Vector Calculus & Electromagnetics		MATHS 2107 Statistics & Numerical Methods II			
	Year 3									
S 1	ELEC ENG 3100 Systems Engineering		ELEC ENG 3101 Control		Level II or III Mathematics Elective		Level II or III Mathematics Elective			
S 2	COMP SCI 2103 Algorithm Design & Data Structures		ELEC ENG 4105 Real Time & Embedded Systems		Level II or III Mathematics Elective		Level II or III Mathematics Elective			
	Internship									
All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks (6 units) of internship during the course of their studies – see note below elective table.										
				Year	· 4					
S 1	ELEC ENG 3103 Engineering Electromagnetics		ENG 3004 Interdisciplinary Professional Practice		Level III Mathematics Elective		Level III Mathematics Elective			
S 2	COMP SCI 3004 Operating Systems		ENG 3005 Research Method and Project Management		Level III Mathematics Elective		Level III Mathematics Elective			
Year 5										
S 1	ENG 4001A Research Project Part A		COMP SCI 3001 Computer Networks & Applications		COMP SCI 3005 Computer Architecture		ELEC ENG 4109 Digital Microelectronics			
S 2	ENG 4001B Research Project Part B		ELEC ENG 4100 Business Management Systems		E&E Engineering Elective (see elective table)		E&E Engineering Elective (see elective table)			



Electives Table

	CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ELECTIVES									
S 1	COMP SCI 3007 Artificial Intelligence		COMP SCI 3308 Cybersecurity Fundamentals		ELEC ENG 4061 Image Processing					
S 2	COMP SCI 3006 Software Engineering & Project		COMP SCI 3307 Secure Programming		ELEC ENG 3104 Electric Drive Systems		ELEC ENG 3108 Telecommunications Principles			
	ELEC ENG 4106 Radio Frequency Systems									

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.

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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through <u>Careers Service</u>. Register with CareerHub to access a database where opportunities are posted.

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



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

	Year 1									
S 1	^ENG 1001 Introduction to Engineering		ELEC ENG 1100 Analog Electronics		ENG 1002 Programming (Matlab and C)		#MATHS 1011 Mathematics IA			
S 2	PHYSICS 1510 Physics 1E Mechanics & Thermodynamics		ELEC ENG 1102 Digital Electronics		COMP SCI 1102 Object Oriented Programming		MATHS 1012 Mathematics IB			
	Year 2									
S 1	ELEC ENG 2100 Digital Systems		ELEC ENG 2101 Electronic Circuits		ELEC ENG 2102 Electric Energy Conversion		MATHS 2106 Differential Equations for Engineers II			
S 2	ELEC ENG 2103 Design & Innovation		ELEC ENG 2104 Digital Signal Processing		ELEC ENG 2106 Vector Calculus & Electromagnetics		MATHS 2107 Statistics & Numerical Methods II			
	Year 3									
S 1	COMP SCI 2103 Algorithm Design & Data Structures		ELEC ENG 3101 Control		Level II or III Mathematics Elective		Level II or III Mathematics Elective			
S 2	COMP SCI 2000 Computer Systems		COMP SCI 2201 Algorithm & Data Structure Analysis		Level II or III Mathematics Elective		Level II or III Mathematics Elective			
	Internship									
All Engineering students commencing from 2019 are required to complete a minimum of 8 weeks (6 units) of internship during the course of their studies – see note below elective table.										
Year 4										
S 1	ELEC ENG 3100 Systems Engineering		ELEC ENG 3103 Engineering Electromagnetics		Level III Mathematics Elective		Level III Mathematics Elective			
S 2	ENG 3004 Interdisciplinary Professional Practice		ENG 3005 Research Method and Project Management		Level III Mathematics Elective		Level III Mathematics Elective			
	Year 5									
S 1	ENG 4001A Research Project Part A		COMP SCI 3308 Cybersecurity Fundamentals		E&E Engineering Elective (see elective table)		E&E Engineering Elective (see elective table)			
S 2	ENG 4001B Research Project Part B		ELEC ENG 4100 Business Management Systems		COMP SCI 3004 Operating Systems UG		COMP SCI 3307 Secure Programming			



Electives Table

	CHOOSE FROM THE FOLLOWING ELECTRICAL & ELECTRONIC (E&E) ELECTIVES									
S 1	COMP SCI 3001 Computer Networks & Applications		ELEC ENG 4061 Image Processing		ELEC ENG 4063 Communications		ELEC ENG 4109 Digital Microelectronics			
S 2	COMP SCI 3006 Software Engineering & Project		ELEC ENG 3104 Electric Drive Systems		ELEC ENG 3108 Telecommunications Principles		ELEC ENG 4105 Real Time & Embedded Systems			
	ELEC ENG 4106 Radio Frequency Systems									

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.

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. Enrolment into 6 unit internship course opens from S1 2021. Internships are self-sourced and resources are available through <u>Careers Service</u>. Register with CareerHub to access a database where opportunities are posted.

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