THE UNIVERSITY of ADELAIDE

Faculty of Engineering, Computer and Mathematical Sciences

2021 Study Plan – Semester 2 Start

Bachelor of Engineering (Honours)(Software)

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Bachelor of Engineering (Honours)(Software) Program Notes

Internship

A total of 8 weeks of approved engineering internship is required. The internship must be supervised by a qualified engineer and may be completed in one internship or a series of internships. 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.

Entrepreneurship Minor

An Entrepreneurship Minor can be presented within the program, please refer to the Entrepreneurship Minor page. Please note the Entrepreneurship Minor can only be presented in the Standard Degree, as there is not enough elective space in the majors to accommodate the courses required for the Entrepreneurship Minor.

Links and Further Information

- **Course Planner** Information about University courses, including availability, class times, restrictions and prerequisites.
- **University Calendar** All academic program rules.
- **Contact Ask ECMS:** askecms@adelaide.edu.au • +61 8 8313 4148 • www.ecms.adelaide.edu.au

Faculty of Engineering, Computer and Mathematical Sciences

2021 Study Plan – Semester 2 Start

Bachelor of Engineering (Honours)(Software) Standard Degree

	Course	Units	Status
Year 1			
S2	COMP SCI 1106 Introduction to Software Engineering	3	
S2	ELEC ENG 1102 Digital Electronics	3	
S2	ENG 1002 Programming (Matlab and C)	3	
S2	MATHS 1011 Mathematics IA	3	
S1	COMP SCI 1102 Object Oriented Programming	3	
S1	^ ENG 1001 Introduction to Engineering	3	
S1	MATHS 1012 Mathematics IB	3	
S1	COMP SCI 2205 Software Engineering Workshop I	3	
Year 2			
S2	COMP SCI 2000 Computer Systems	3	
S2	COMP SCI 2103 Algorithm Design & Data Structures	3	
S2	COMP SCI 2206 Software Engineering Workshop II	3	
S2	MATHS 2107 Statistics & Numerical Methods II	3	
S1	ELEC ENG 1100 Analog Electronics	3	
S1	COMP SCI 2201 Algorithm & Data Structure Analysis	3	
S1	COMP SCI 2207 Web & Database Computing	3	
S1	COMP SCI 3303 Engineering Software as Services I	3	
Year 3			
S2	COMP SCI 3004 Operating Systems	3	
S2	COMP SCI 3304 Engineering Software as Services II	3	
S2	Software Engineering Elective A	3	
S2	Software Engineering Elective B	3	
S1	COMP SCI 3001 Computer Networks & Applications	3	
S1	ENG 3004 Systems Engineering and Industry Practice	3	
S1	COMP SCI 4405 Research Methods in Software Engineering and Computer Science	3	
S1	COMP SCI 4414A Software Engineering Research Project A	3	
Year 4			
S2	COMP SCI 4411 Event Driven Computing	3	
S2	COMP SCI 4414B Software Engineering Research Project B	3	
S2	Software Engineering Elective B	3	
S2	Software Engineering Elective C	3	
S1	COMP SCI 4023 Software Process Improvement	3	
S1	Software Engineering Elective B	3	
S1	Software Engineering Elective C	3	
S1	Software Engineering Elective C	3	

Core Course		Elective Course (see elective tables)	
CM = Completed	**CR** = Credit Awarded	**EN** = Currently Enrolled	**ENROL** = Add to Enrolments

^ Unless exempted, International students are required to take ENG 1011 Introduction to Engineering EAL in lieu of ENG 1001 Introduction to Engineering as advised by the Faculty.

THE UNIVERSITY of ADELAIDE

Faculty of Engineering, Computer and Mathematical Sciences

2021 Study Plan – Semester 2 Start

Bachelor of Engineering (Honours)(Software) Defence Systems Major

	Course	Units	Status
Year 1			
S2	COMP SCI 1106 Introduction to Software Engineering	3	
S2	ELEC ENG 1102 Digital Electronics	3	
S2	ENG 1002 Programming (Matlab and C)	3	
S2	MATHS 1011 Mathematics IA	3	
S1	COMP SCI 1102 Object Oriented Programming	3	
S1	^ ENG 1001 Introduction to Engineering	3	
S1	MATHS 1012 Mathematics IB	3	
S1	COMP SCI 2205 Software Engineering Workshop I	3	
Year 2			
S2	COMP SCI 2000 Computer Systems	3	
S2	COMP SCI 2103 Algorithm Design & Data Structures	3	
S2	COMP SCI 2206 Software Engineering Workshop II	3	
S2	MATHS 2107 Statistics & Numerical Methods II	3	
S1	ELEC ENG 1100 Analog Electronics	3	
S1	COMP SCI 2201 Algorithm & Data Structure Analysis	3	
S1	COMP SCI 2207 Web & Database Computing	3	
S1	COMP SCI 3303 Engineering Software as Services I	3	
Year 3			
S2	COMP SCI 3004 Operating Systems	3	
S2	COMP SCI 3304 Engineering Software as Services II	3	
S2	COMP SCI 3307 Secure Programming	3	
S2	ENG 3305 Human Factors for Decision Making	3	
S1	COMP SCI 3001 Computer Networks & Applications	3	
S1	ENG 3004 Systems Engineering and Industry Practice	3	
S1	COMP SCI 4405 Research Methods in Software Engineering and Computer Science	3	
S1	COMP SCI 4414A Software Engineering Research Project A	3	
Year 4			
S2	COMP SCI 4411 Event Driven Computing	3	
S2	COMP SCI 4092 Mobile and Wireless Systems	3	
S2	COMP SCI 4414B Software Engineering Research Project B	3	
S2	ENG 4020 Complex Systems Engineering	3	
S1	COMP SCI 4023 Software Process Improvement	3	
S1	Software Engineering Elective A	3	
S1	POLIS 1104 Introduction to Comparative Politics	3	
S1	ENG 4010 Defence Leadership	3	

Core Course	Elective Course (see elective tables)	Major Course	
CM = Completed	**CR** = Credit Awarded	**EN** = Currently Enrolled	**ENROL** = Add to Enrolments

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THE UNIVERSITY of ADELAIDE

Faculty of Engineering, Computer and Mathematical Sciences

2021 Study Plan – Semester 2 Start

Bachelor of Engineering (Honours)(Software) Smart Technologies Major

	Course	Units	Status
Year 1			
S2	COMP SCI 1106 Introduction to Software Engineering	3	
S2	ELEC ENG 1102 Digital Electronics	3	
S2	ENG 1002 Programming (Matlab and C)	3	
S2	MATHS 1011 Mathematics IA	3	
S1	COMP SCI 1102 Object Oriented Programming	3	
S1	^ ENG 1001 Introduction to Engineering	3	
S1	MATHS 1012 Mathematics IB	3	
S1	COMP SCI 2205 Software Engineering Workshop I	3	
Year 2			
S2	COMP SCI 2000 Computer Systems	3	
S2	COMP SCI 2103 Algorithm Design & Data Structures	3	
S2	COMP SCI 2206 Software Engineering Workshop II	3	
S2	MATHS 2107 Statistics & Numerical Methods II	3	
S1	ELEC ENG 1100 Analog Electronics	3	
S1	COMP SCI 2201 Algorithm & Data Structure Analysis	3	
S1	COMP SCI 2207 Web & Database Computing	3	
S1	COMP SCI 3303 Engineering Software as Services I	3	
Year 3			
S2	COMP SCI 3004 Operating Systems	3	
S2	COMP SCI 3304 Engineering Software as Services II	3	
S2	Software Engineering Elective A	3	
S2	MECH ENG 3032 Micro-Controller Programming	3	
S1	COMP SCI 3001 Computer Networks & Applications	3	
S1	ENG 3004 Systems Engineering and Industry Practice	3	
S1	COMP SCI 4405 Research Methods in Software Engineering and Computer Science	3	
S1	COMP SCI 4414A Software Engineering Research Project A	3	
Year 4			
S2	COMP SCI 4411 Event Driven Computing	3	
S2	COMP SCI 4092 Mobile and Wireless Systems	3	
S2	COMP SCI 4414B Software Engineering Research Project B	3	
S2	COMP SCI 4812 Secure Software Engineering	3	
S1	COMP SCI 4023 Software Process Improvement	3	
S1	Software Engineering Elective B or C	3	
S1	COMP SCI 3007 Artificial Intelligence	3	
S1	ELEC ENG 2100 Digital Systems	3	

Core Course	Elective Course (see elective tables)	Major Course / Major Elective (see elective tables)	
CM = Completed	**CR** = Credit Awarded	**EN** = Currently Enrolled	**ENROL** = Add to Enrolments

^ Unless exempted, International students are required to take ENG 1011 Introduction to Engineering EAL in lieu of ENG 1001 Introduction to Engineering as advised by the Faculty.

Bachelor of Engineering (Honours)(Software) Elective Tables

Available	Course	Units	Status
Software Engineering Elective A Table			
S1	COMP SCI 2005 Systems Programming	3	
S1	ELEC ENG 2100 Digital Systems	3	
S1	POLIS 1104 Introduction to Comparative Politics	3	
S1 S2	ENTREP 1011 Entrepreneurship Foundations and Mindset	3	
S2	COMP SCI 2203 Problem Solving & Software Development	3	
Software Engineering Elective B Table			
N/A	COMP SCI 3014 Computer Graphics	3	
N/A	COMP SCI 3309 Cybersecurity A Practical Application	3	
S1	COMP SCI 3005 Computer Architecture	3	
S1	COMP SCI 3007 Artificial Intelligence	3	
S1	COMP SCI 3305 Parallel and Distributed Computing	3	
S1	COMP SCI 3306 Mining Big Data	3	
S1	COMP SCI 3308 Cybersecurity Fundamentals	3	
S1	COMP SCI 3315 Computer Vision	3	
S1	ENTREP 3015 Entrepreneurial Leadership	3	
S1	ENTREP 3017 Driving Decisions: Legal	3	
S1	ENTREP 3901 Tech eChallenge	3	
S2	COMP SCI 3012 Distributed Systems	3	
S2	COMP SCI 3307 Secure Programming	3	
S2	COMP SCI 3314 Introduction to Statistical Machine Learning	3	
S2	COMP SCI 3316 Evolutionary Computation	3	
S2	ELEC ENG 3108 Telecommunications Principles	3	
S2	ELEC ENG 4107 Autonomous Systems	3	
S2	ENG 3305 Human Factors for Decision Making	3	
S2	ENTREP 1006 Opportunity Assessment	3	
S2	ENTREP 2051 Prototyping: Possibilities to Product	3	
S2	ENTREP 3011 Startup Methodologies	3	
S2	ENTREP 3900 eChallenge	3	
S2	MECH ENG 3032 Micro-Controller Programming	3	
SS WS S2	ENTREP 3000 Innovation and Creativity	3	
Software Engineering Elective C Table			
N/A	COMP SCI 4010 Special Topics in Computer Science A	3	
N/A	COMP SCI 4012 Special Topics in Computer Science B	3	
N/A	ENG 4020 Complex Systems Engineering	3	
S1	COMP SCI 4407 Advanced Algorithms	3	
S1	COMP SCI 4408 Modelling and Analysis of Complex Systems	3	
S1	COMP SCI 4409 Search Based Software Engineering	3	
S1	COMP SCI 4413 Introduction to Quantum Computing	3	
S1	COMP SCI 4417 Applied Natural Language Processing UG	3	
S2	COMP SCI 4000 Software Architecture	3	
S2	COMP SCI 4094 Distributed Databases and Data Mining	3	
S2	COMP SCI 4412 Secure Software Engineering	3	
S2	COMP SCI 4416 Applied Machine Learning UG	3	

Bachelor of Engineering (Honours)(Software) Entrepreneurship Minor

Minors are undertaken by taking 12 units of courses as outlined below. Please note the Entrepreneurship Minor can only be presented in the Standard Degree, as there is not enough elective space in the majors to accommodate the courses required for the Entrepreneurship Minor.

Available	Course	Units	Status
Entrepreneurship Minor			
S1	ENTREP 3015 Entrepreneurial Leadership	3	
S2	ENTREP 3011 Startup Methodologies	3	
SS WS S2	ENTREP 3000 Innovation and Creativity	3	
	And one of:		
S1	ENTREP 3901 Tech eChallenge	3	
S2	ENTREP 3900 eChallenge	3	