



THE UNIVERSITY
of ADELAIDE

Faculty of Engineering, Computer and Mathematical Sciences 2020 Study Plan

School of Computer Science

Bachelor of Engineering (Honours)(Software Engineering) – All Majors

Semester 1 Start

[Bachelor of Engineering \(Honours\) \(Software Engineering\)](#)

[Bachelor of Engineering \(Honours\) \(Software Engineering\) – Defence Systems Major](#)

[Bachelor of Engineering \(Honours\) \(Software Engineering\) – Smart Technologies Major](#)

Bachelor of Engineering (Honours) (Software Engineering)

| 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 | COMP SCI 1106 Introduction to Software Engineering <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 | Specified Elective 3 units (table below) <input type="checkbox"/> | COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/> | COMP SCI 2205 Software Engineering Workshop I <input type="checkbox"/> | COMP SCI 2207 Web & Database Computing <input type="checkbox"/> |
| S 2 | COMP SCI 2000 Computer Systems <input type="checkbox"/> | COMP SCI 2201 Algorithm & Data Structure Analysis <input type="checkbox"/> | COMP SCI 2206 Software Engineering Workshop II <input type="checkbox"/> | MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/> |
| Year 3 | | | | |
| S 1 | COMP SCI 3001 Computer Networks & Applications <input type="checkbox"/> | COMP SCI 3303 Engineering Software as Services I <input type="checkbox"/> | Software Engineering Elective (see elective table A & B) <input type="checkbox"/> | ENG 3004 Interdisciplinary Professional Practice <input type="checkbox"/> |
| S 2 | COMP SCI 3004 Operating Systems <input type="checkbox"/> | COMP SCI 3304 Engineering Software as Services II <input type="checkbox"/> | Software Engineering Elective (see elective table A & B) <input type="checkbox"/> | Software Engineering Elective (see elective table A & B) <input type="checkbox"/> |
| 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 | COMP SCI 4414A Software Engineering Research Project A <input type="checkbox"/> | COMP SCI 4023 Software Process Improvement <input type="checkbox"/> | COMP SCI 4405 Research Methods in Software Engineering and Computer Science <input type="checkbox"/> | Software Engineering Elective (see elective table B) <input type="checkbox"/> |
| S 2 | COMP SCI 4414B Software Engineering Research Project B <input type="checkbox"/> | COMP SCI 4411 Event Driven Computing <input type="checkbox"/> | Software Engineering Elective (see elective table B) <input type="checkbox"/> | Software Engineering Elective (see elective table B) <input type="checkbox"/> |

Core Courses

Major Courses

Elective Tables

| CHOOSE FROM THE FOLLOWING SPECIFIED ELECTIVES | | | | |
|--|---|--|---|--|
| | COMP SCI 2005 Systems Programming <input type="checkbox"/> | COMP SCI 2203 Problem Solving and Software Development <input type="checkbox"/> | ELEC ENG 2100 Digital Systems | ENTRP 1011 Entrepreneurship Foundations and Mindset |
| | POLIS 1104 Introduction to Comparative Politics <input type="checkbox"/> | | | |
| CHOOSE FROM THE FOLLOWING SOFTWARE ENGINEERING ELECTIVES – TABLE A | | | | |
| S1 | COMP SCI 3005 Computer Architecture <input type="checkbox"/> | COMP SCI 3007 Artificial Intelligence <input type="checkbox"/> | COMP SCI 3305 Parallel and Distributed Computing <input type="checkbox"/> | COMP SCI 3306 Mining Big Data <input type="checkbox"/> |
| | COMP SCI 3308 Cybersecurity Fundamentals <input type="checkbox"/> | COMP SCI 3315 Computer Vision <input type="checkbox"/> | ENTREP 3011 Startup Methodologies <input type="checkbox"/> | ENTREP 3015 Entrepreneurial Leadership <input type="checkbox"/> |
| | ENTREP 3901 Tech eChallenge <input type="checkbox"/> | POLIS 1104 Introduction to Comparative Politics <input type="checkbox"/> | ENG 3305 Human Factors in Decision Making <input type="checkbox"/> | |
| Winter | COMP SCI 3309 Cybersecurity: A Practical Application <input type="checkbox"/> | ENTREP 3000 Innovation and Creativity <input type="checkbox"/> | | |
| S2 | COMP SCI 3012 Distributed Systems <input type="checkbox"/> | COMP SCI 3307 Secure Programming <input type="checkbox"/> | COMP SCI 3314 Introduction to Statistical Machine Learning <input type="checkbox"/> | COMP SCI 3316 Evolutionary Computation <input type="checkbox"/> |
| | ENG 3305 Human Factors in Decision Making <input type="checkbox"/> | ENTREP 3900 eChallenge <input type="checkbox"/> | MECH ENG 3032 Micro-Controller Programming <input type="checkbox"/> | |
| Summer | ENTREP 3000 Innovation and Creativity <input type="checkbox"/> | | | |
| CHOOSE FROM THE FOLLOWING SOFTWARE ENGINEERING ELECTIVES – TABLE B | | | | |
| S1 | COMP SCI 4407 Advanced Algorithms <input type="checkbox"/> | COMP SCI 4408 Modelling and Analysis of Complex Systems <input type="checkbox"/> | COMP SCI 4409 Search Based Software Engineering <input type="checkbox"/> | COMP SCI 4410 Computer Graphics <input type="checkbox"/> |
| | ENG 4010 Defence Leadership <input type="checkbox"/> | | | |
| S2 | COMP SCI 4000 Software Architecture <input type="checkbox"/> | COMP SCI 4094 Distributed Databases and Data Mining <input type="checkbox"/> | COMP SCI 4095 Evolutionary Computation <input type="checkbox"/> | COMP SCI 4412 Secure Software Engineering <input type="checkbox"/> |
| | COMP SCI 4413 Introduction to Quantum Computing <input type="checkbox"/> | ENG 4020 Complex Systems Engineering <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.

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 [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

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

Bachelor of Engineering (Honours) (Software Engineering) – Defence Systems 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 | COMP SCI 1106 Introduction to Software Engineering <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 | Specified Elective 3 units (table below) <input type="checkbox"/> | COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/> | COMP SCI 2205 Software Engineering Workshop I <input type="checkbox"/> | COMP SCI 2207 Web & Database Computing <input type="checkbox"/> |
| S 2 | COMP SCI 2000 Computer Systems <input type="checkbox"/> | COMP SCI 2201 Algorithm & Data Structure Analysis <input type="checkbox"/> | COMP SCI 2206 Software Engineering Workshop II <input type="checkbox"/> | MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/> |
| Year 3 | | | | |
| S 1 | COMP SCI 3001 Computer Networks & Applications <input type="checkbox"/> | COMP SCI 3303 Engineering Software as Services I <input type="checkbox"/> | POLIS 1104 Introduction to Comparative Politics <input type="checkbox"/> | ENG 3004 Interdisciplinary Professional Practice <input type="checkbox"/> |
| S 2 | COMP SCI 3004 Operating Systems <input type="checkbox"/> | COMP SCI 3304 Engineering Software as Services II <input type="checkbox"/> | COMP SCI 3307 Secure Programming <input type="checkbox"/> | ENG 3305 Human Factors in Decision Making <input type="checkbox"/> |
| 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 | COMP SCI 4414A Software Engineering Research Project A <input type="checkbox"/> | COMP SCI 4023 Software Process Improvement <input type="checkbox"/> | COMP SCI 4405 Research Methods in Software Engineering and Computer Science <input type="checkbox"/> | ENG 4010 Defence Leadership <input type="checkbox"/> |
| S 2 | COMP SCI 4414B Software Engineering Research Project B <input type="checkbox"/> | COMP SCI 4411 Event Driven Computing <input type="checkbox"/> | ENG 4020 Complex Systems Engineering <input type="checkbox"/> | COMP SCI 4092 Mobile and Wireless Systems <input type="checkbox"/> |

Elective Table

| CHOOSE FROM THE FOLLOWING SPECIFIED ELECTIVES | | | |
|--|---|-------------------------------|---|
| COMP SCI 2005 Systems Programming <input type="checkbox"/> | COMP SCI 2203 Problem Solving and Software Development <input type="checkbox"/> | ELEC ENG 2100 Digital Systems | ENTRP 1011 Entrepreneurship Foundations and Mindset |
| POLIS 1104 Introduction to Comparative Politics <input type="checkbox"/> | | | |

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| Year 1 | | | | |
|---|---|--|--|---|
| S 1 | ^A 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 | COMP SCI 1106 Introduction to Software Engineering <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 | Specified Elective 3 units (table below) <input type="checkbox"/> | COMP SCI 2103 Algorithm Design & Data Structures <input type="checkbox"/> | COMP SCI 2205 Software Engineering Workshop I <input type="checkbox"/> | COMP SCI 2207 Web & Database Computing <input type="checkbox"/> |
| S 2 | COMP SCI 2000 Computer Systems <input type="checkbox"/> | COMP SCI 2201 Algorithm & Data Structure Analysis <input type="checkbox"/> | COMP SCI 2206 Software Engineering Workshop II <input type="checkbox"/> | MATHS 2107 Statistics & Numerical Methods II <input type="checkbox"/> |
| Year 3 | | | | |
| S 1 | COMP SCI 3001 Computer Networks & Applications <input type="checkbox"/> | COMP SCI 3303 Engineering Software as Services I <input type="checkbox"/> | COMP SCI 3007 artificial Intelligence <input type="checkbox"/> | ENG 3004 Interdisciplinary Professional Practice <input type="checkbox"/> |
| S 2 | COMP SCI 3004 Operating Systems <input type="checkbox"/> | COMP SCI 3304 Engineering Software as Services II <input type="checkbox"/> | COMP SCI 4812 Secure Software Engineering <input type="checkbox"/> | MECH ENG 3032 Micro-Controller Programming <input type="checkbox"/> |
| 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 | COMP SCI 4414A Software Engineering Research Project A <input type="checkbox"/> | COMP SCI 4023 Software Process Improvement <input type="checkbox"/> | COMP SCI 4405 Research Methods in Software Engineering and Computer Science <input type="checkbox"/> | ELEC ENG 2100 Digital Systems <input type="checkbox"/> |
| S 2 | COMP SCI 4414B Software Engineering Research Project B <input type="checkbox"/> | COMP SCI 4411 Event Driven Computing <input type="checkbox"/> | COMP SCI 4092 Mobile and Wireless Systems <input type="checkbox"/> | Computer Science Level III Elective <input type="checkbox"/> |

Elective Tables

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| | ENG 4010 Defence Leadership <input type="checkbox"/> | | | |
| S2 | COMP SCI 4000 Software Architecture <input type="checkbox"/> | COMP SCI 4094 Distributed Databases and Data Mining <input type="checkbox"/> | COMP SCI 4095 Evolutionary Computation <input type="checkbox"/> | COMP SCI 4413 Introduction to Quantum Computing <input type="checkbox"/> |
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