**Course progression map for 2019 commencing students**

This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It should be used in conjunction with the requirements of the course as specified in the Handbook. This map is subject to updates. Last update: 4 October 2021

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**E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology**

**Common first year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sem</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>ENG1001 Engineering design: lighter, faster, stronger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENG1005 Engineering mathematics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENG1060 Computing for engineers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FIT1047 Introduction to computer systems networks and security</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>ENG1002 Engineering design: cleaner, safer, smarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENG1003 Engineering mobile apps</td>
</tr>
<tr>
<td></td>
<td></td>
<td>First year engineering elective unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java</td>
</tr>
</tbody>
</table>

Tip: You can swap the semesters of your engineering elective and FIT1047.

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>ENG1002 Engineering design: cleaner, safer, smarter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHS1001 Foundation physics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ENG1060 Computing for engineers</td>
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<td></td>
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<td>FIT1047 Introduction to computer systems networks and security</td>
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<tr>
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</tbody>
</table>

* Double degree students requiring two foundation units will need to take the remaining core unit ENG1001 Engineering design: lighter, faster, stronger in semester one of year two as an overload, and increase the total credit points needed for the double by 6 points. You cannot swap the semesters of any of the units.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
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<td>ENG1002 Engineering design: cleaner, safer, smarter</td>
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<td></td>
<td>ENG1003 Engineering mobile apps</td>
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<td></td>
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<td>ENG1090 Foundation mathematics</td>
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Course progression map for 2019 commencing students

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E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Electrical and computer systems engineering; IT major – Computer networks and security

<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>Sem 1</th>
<th>Bachelor of Electrical and Computer Systems Engineering (Honours)</th>
<th>Bachelor of Information Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Common First Year</td>
<td></td>
</tr>
<tr>
<td>YEAR 1</td>
<td>Sem 2</td>
<td>ENG2005 Advanced engineering mathematics</td>
<td>FIT1047 Introduction to computer systems networks and security</td>
</tr>
</tbody>
</table>

| YEAR 2 | Sem 1 | ECE2071 Computer organisation and programming                 | FIT2093 Introduction to cyber security |
|        |       | FIT2094 Databases                                             |                                  |
| YEAR 2 | Sem 2 | ECE2191 Probability models in engineering                     | FIT2100 Operating systems         |
|        |       | ECE2072 Digital systems                                       |                                  |
| YEAR 3 | Sem 1 | ECE2023 Engineering electromagnetics                          | FIT elective                      |
| YEAR 3 | Sem 2 | FIT2001 Systems development or FIT2099 Object-oriented design and implementation |
|        |       | FIT2022 IT project management                                 |                                  |
| YEAR 4 | Sem 1 | ECE2021 Electrical circuits                                  | FIT3173 Software security         |
| YEAR 4 | Sem 2 | ECE3091 Engineering design                                   | FIT3165 Computer networks         |
| YEAR 5 | Sem 1 | Level 4 ECSE technical elective                               | FIT2081 Mobile applications development or FIT3142 Distributed computing |
| YEAR 5 | Sem 2 | ENGO01 Continuous Professional Development (0 credit points)  |                                  |

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CRICOS Provider Number: 00008C

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Version date: 21 Nov 2017
# Course progression map for 2019 commencing students

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## E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

### Engineering specialisation - Software engineering; IT major – Computer Networks and Security

**YEAR 1**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Bachelor of Software Engineering (Honours)</th>
<th>Bachelor of Information Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 1</td>
<td>FIT1047 Introduction to computer systems, networks and security</td>
<td>FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java</td>
</tr>
<tr>
<td><strong>Common First Year</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sem 2</td>
<td>FIT1048 Fundamentals of C++ or FIT1045 Algorithms and programming fundamentals in Python or FIT1051 Programming fundamentals in Java</td>
<td>FIT2093 Introduction to cyber security</td>
</tr>
</tbody>
</table>

**YEAR 2**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Bachelor of Software Engineering (Honours)</th>
<th>Bachelor of Information Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 1</td>
<td>MAT1830 Discrete mathematics for computer science</td>
<td>FIT2085 Introduction to computer science</td>
</tr>
<tr>
<td></td>
<td>FIT2094 Databases</td>
<td>FIT2094 Databases</td>
</tr>
<tr>
<td>Sem 2</td>
<td>FIT2004 Algorithms and data structures</td>
<td>FIT2101 Software engineering process and management</td>
</tr>
<tr>
<td></td>
<td>FIT1049 IT professional practice</td>
<td>FIT elective</td>
</tr>
</tbody>
</table>

**YEAR 3**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Bachelor of Software Engineering (Honours)</th>
<th>Bachelor of Information Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 1</td>
<td>FIT3159 Computer architecture</td>
<td>FIT2099 Object oriented design and implementation</td>
</tr>
<tr>
<td></td>
<td>FIT elective</td>
<td>FIT2001 Systems development</td>
</tr>
<tr>
<td>Sem 2</td>
<td>FIT2107 Software quality and testing</td>
<td>FIT2100 Operating systems</td>
</tr>
<tr>
<td></td>
<td>FIT2002 IT project management</td>
<td>FIT elective</td>
</tr>
</tbody>
</table>

**YEAR 4**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Bachelor of Software Engineering (Honours)</th>
<th>Bachelor of Information Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 1</td>
<td>FIT3170 Software engineering practice (12 points)</td>
<td>FIT3077 Software engineering: architecture and design</td>
</tr>
<tr>
<td></td>
<td>FIT3173 Software security</td>
<td>FIT3081 Mobile applications development</td>
</tr>
<tr>
<td>Sem 2</td>
<td>Level 3 or 4 software engineering approved elective</td>
<td>FIT3031 Network security</td>
</tr>
<tr>
<td></td>
<td>FIT3142 Distributed computing</td>
<td>FIT3142 Distributed computing</td>
</tr>
</tbody>
</table>

**YEAR 5**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Bachelor of Software Engineering (Honours)</th>
<th>Bachelor of Information Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 1</td>
<td>FIT4002 Software engineering industry experience studio project (12 points)</td>
<td>FIT4165 Computer networks</td>
</tr>
<tr>
<td></td>
<td>FIT4165 Computer networks</td>
<td>FIT3047 IE Studio Project 1</td>
</tr>
<tr>
<td>Sem 2</td>
<td>FIT4003 Software engineering research project (12 points)</td>
<td>FIT3048 IE Studio Project 2</td>
</tr>
<tr>
<td></td>
<td>FIT3048 IE Studio Project 2</td>
<td>ENG001 Continuous Professional Development (0 credit points)</td>
</tr>
</tbody>
</table>

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