# Bachelor of Computer Systems Engineering (Honours) 2015

## Computer Systems Engineering

### Stage One

<table>
<thead>
<tr>
<th>Sem 1</th>
<th>ENG1090 Foundation Mathematics and ENG1002 Engineering design: cleaner, safer, smarter OR ENG1091 Mathematics for engineering and ENG1060 Computing for engineers</th>
<th>FIT1029 Algorithm problem solving</th>
<th>ECE2071 Computer organisation and programming B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 2</td>
<td>ENG1091 Mathematics for engineering and ENG1060 Computing for engineers OR ENG1002 Engineering design: cleaner, safer, smarter and one approved elective</td>
<td>FIT1008 Computer science</td>
<td>ECE2072 Digital systems</td>
</tr>
</tbody>
</table>

### Stage Two

<table>
<thead>
<tr>
<th>Sem 1</th>
<th>ECE2011 Signal processing</th>
<th>ECE2041 Telecommunications</th>
<th>ECE2061 Analogue electronics</th>
<th>ECE3073 Computer systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 2</td>
<td>ECE2021 Electromagnetism</td>
<td>ECE2031 Circuits and control</td>
<td>ENG2092 Advanced engineering mathematics B</td>
<td>Approved elective</td>
</tr>
</tbody>
</table>

### Stage Three

<table>
<thead>
<tr>
<th>Sem 1</th>
<th>ECE3022 Wireless and guided EM</th>
<th>Computer Systems Engineering elective</th>
<th>ECSE elective</th>
<th>Approved elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 2</td>
<td>ECE3062 Electronic systems and control</td>
<td>ECE3091 Engineering design</td>
<td>Computer Systems Engineering elective</td>
<td>Computer Systems Engineering elective</td>
</tr>
</tbody>
</table>

### Stage Four

<table>
<thead>
<tr>
<th>Sem 1</th>
<th>ECE4094 Project A</th>
<th>ECE4099 Professional practice</th>
<th>ECSE elective</th>
<th>Computer Systems Engineering elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem 2</td>
<td>ECE4095 Project B</td>
<td>ECE4074 Advanced Computer Architecture or ECE5881 System development (must be approved)</td>
<td>ECSE elective</td>
<td>Approved elective</td>
</tr>
</tbody>
</table>

### Electives – approved elective units may include (subject to pre-requisites):

(a) The following Computer Systems Engineering units:

- ECE4012 Applied digital signal processing
- ECE4023 Radio frequency electronics
- ECE4024 Wireless communications
- ECE4042 Communications theory
- ECE4043 optical communications
- ECE4044 Telecommunications protocols
- ECE4045 Network performance
- ECE4076 Computer vision
- ECE4077 Advanced computing techniques
- ECE4078 Intelligent robotics
- Any ECE4xxx unit deemed suitable*
- Approved units from the Faculty of Information Technology up to a maximum of 24 credit points*

(b) Any unit offered by the Department of Electrical and Computer Systems Engineering (ECSE) *

(c) A unit from elsewhere in the university*

Units in (b) and (c) must not include substantial material already completed or to be taken as part of the degree. Only one unit may be taken at each level of the degree from this category, allowing students to pursue an approved sequence of units from elsewhere in the University.

*subject to departmental approval

### Notes

- **Credit points**: Unless specified, all units are worth 6 credit points
- **Bachelor of Computer Systems Engineering**: 32 units x 6cp = Total of 192 credit points
- **Unit requisites**: All pre-requisite and co-requisite requirements must be undertaken in order to be able to enrol into a specific unit
- **Duration of degree**: 4 years full-time, 8 years part-time
- **Time limit**: Time limit = 8 years. Students have eight years in which to complete this award from the time they commence first year. Periods of intermission are counted as part of the eight years.
- **Course advice**: [www.eng.monash.edu.au/current-students/course-advice.html](http://www.eng.monash.edu.au/current-students/course-advice.html)
- **Monash University handbook**: Students should follow the course structure for the year the course was commenced [http://monash.edu/pubs/2015handbooks/courses/index-byfaculty-eng.html](http://monash.edu/pubs/2015handbooks/courses/index-byfaculty-eng.html)

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