

# Bachelor of Computer Science Advanced (Honours) (C3001) – 2026

## Algorithms and software specialisation

Year 1	First Semester	<b>FIT1053</b> Introduction to programming (advanced)	<b>FIT1047</b> Introduction to computer systems, networks and security	<b>FIT1058</b> Foundations of computing	<b>Elective</b>
	Second Semester	<b>FIT1054</b> Fundamentals of algorithms (advanced)	<b>FIT1049</b> IT professional practice	<b>Elective</b>	<b>Elective</b>
Year 2	First Semester	<b>FIT2004</b> Algorithms and data structures	<b>FIT2099</b> Object-oriented design and implementation	<b>FIT2094</b> Databases	<b>FIT2083</b> Innovation and research in computer science
	Second Semester	<b>FIT2014</b> Theory of computation	<b>FIT2102</b> Programming paradigms	<b>FIT2109</b> Computer science workshop	<b>FIT2082</b> Computer science research project
Year 3	First Semester	<b>FIT3161 *</b> Computer science project 1	<b>Level 3 *</b> Algorithms and software Approved Elective**	<b>FIT3155</b> Advanced data structures and algorithms	<b>Elective</b>
	Second Semester	<b>FIT3162 *</b> Computer science project 2	<b>FIT3143</b> Parallel computing	<b>Elective</b>	<b>Elective</b>
Year 4	First Semester	<b>FIT4441</b> Honours thesis – part 1	<b>FIT4442</b> Honours thesis – part 2	<b>Level 4/5</b> Computer science approved elective	<b>Elective</b>
	Second Semester	<b>FIT4443</b> Honours thesis – part 3	<b>FIT4444</b> Honours thesis – final	<b>Level 4/5</b> Computer science approved elective	<b>Elective</b>

### \*\* Approved Level 3 Algorithms and software Electives (choose 1)

FIT3080 Artificial intelligence	FIT3196 Computer architecture and networks
FIT3139 Computational modelling and simulation	MTH3170 Network mathematics
FIT3146 Maker lab	MTH3175 Network mathematics (Advanced)
FIT3159 Computer architecture	

**Note that not all units will be taught every year and some will be offered only in alternate years.**

### \* Industry Based Learning (IBL)

- Students accepted into the IBL program will replace FIT3161, FIT3162 and the Level 3 Algorithms and software approved elective with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 1 of third year for BCS Advanced Honours students.
- Students completing an IBL placement must overload in one semester OR complete a summer unit to complete the course in 4 years.

### Notes

<b>Credit points</b>	Unless specified, all units are worth 6 credit points Bachelor of Computer Science Advanced (Honours) 32 units x 6 credit points = Total of 192 credit points
<b>Year Level Requirements</b>	1) Normally 48 points, and a maximum of 60 points, of first year level units will be counted; 2) At least 36 points must be completed at third year level.
<b>Unit requisites</b>	All pre-requisite and co-requisite requirements must be undertaken be able to enrol into a specific unit
<b>Duration of degree</b>	4 years full-time, 8 years part-time
<b>Time limit</b>	Time limit = 10 years. Students have ten years in which to complete this award from the time they commence first year. Periods of intermission are counted as part of the ten years.
<b>Monash University handbook</b>	Students should follow the course requirements for the year the course was commenced <a href="https://handbook.monash.edu/browse/By%20Faculty/FacultyofInformationTechnology">https://handbook.monash.edu/browse/By%20Faculty/FacultyofInformationTechnology</a>