

## Bachelor of Computer Science – 2026

### Double degrees with Commerce and Science (B2008, L3011, S2004)

#### Algorithms and software specialisation

Year 1	First Semester	<b>FIT1045</b> Introduction to programming	<b>FIT1047</b> Introduction to computer systems, networks and security	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT1058</b> Foundations of computing	<b>FIT1049</b> IT professional practice	Commerce/Science unit	Commerce/Science unit
Year 2	First Semester	<b>FIT1008</b> Fundamentals of algorithms	<b>FIT2094</b> Databases	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT2004</b> Algorithms and data structures	<b>FIT2102</b> Programming paradigms	Commerce/Science unit	Commerce/Science unit
Year 3	First Semester	<b>FIT2014</b> Theory of computation	<b>FIT2099</b> Object-oriented design and implementation	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT2109</b> Computer science workshop	<b>Level 3 *</b> Algorithms and software Approved Elective**	Commerce/Science unit	Commerce/Science unit
Year 4	First Semester	<b>FIT3161 *</b> Computer science project 1	<b>FIT3155</b> Advanced data structures and algorithms	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT3162 *</b> Computer science project 2	<b>FIT3143</b> Parallel computing	Commerce/Science unit	Commerce/Science unit

\*\* Approved Algorithms and software electives (choose 1)

FIT3080 Artificial intelligence  
FIT3139 Computational modelling and simulation  
FIT3146 Maker lab  
FIT3159 Computer architecture

FIT3195 Computer architecture and networks  
MTH3170 Network mathematics  
MTH3175 Network mathematics (Advanced)

**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 Algorithms and software students.
- Students completing an IBL placement must overload in one semester OR complete a summer unit to complete the course in 4 years.

# Bachelor of Computer Science – 2026

## Double degrees with Commerce and Science (B2008, S2004)

### Artificial intelligence specialisation

Year 1	First Semester	<b>FIT1045</b> Introduction to programming	<b>FIT1047</b> Introduction to computer systems, networks and security	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT1058</b> Foundations of computing	<b>FIT1061</b> Introduction to artificial intelligence	Commerce/Science unit	Commerce/Science unit
Year 2	First Semester	<b>FIT1008</b> Fundamentals of algorithms	<b>FIT2111</b> Symbolic artificial intelligence and machine learning	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT2004</b> Algorithms and data structures	<b>FIT2112</b> Deep learning	Commerce/Science unit	Commerce/Science unit
Year 3	First Semester	<b>FIT1049</b> IT professional practice	<b>FIT3192*</b> Emerging and advanced topics in artificial intelligence	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT2014</b> Theory of computation	<b>FIT2094</b> Databases	Commerce/Science unit	Commerce/Science unit
Year 4	First Semester	<b>FIT3193*</b> Artificial intelligence project 1	<b>FIT3191</b> Generative artificial intelligence	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT3194*</b> Artificial intelligence project 2	<b>FIT3203</b> Intelligent agents	Commerce/Science unit	Commerce/Science unit

#### \* Industry Based Learning (IBL)

- Students accepted into the IBL program completing the AI specialisation will replace FIT3193 and FIT3194 and FIT3192 with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 2 of third year or semester 1 of fourth year.
- Students completing an IBL placement must overload in one semester OR complete a summer unit to complete the course in 4 years.

## Bachelor of Computer Science – 2026

### Double degrees with Commerce and Science (B2008, S2004)

#### Cybersecurity specialisation

Year 1	First Semester	<b>FIT1045</b> Introduction to programming	<b>FIT1047</b> Introduction to computer systems, networks and security	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT1058</b> Foundations of computing	<b>FIT1093</b> Cybersecurity tools and techniques	Commerce/Science unit	Commerce/Science unit
Year 2	First Semester	<b>FIT1008</b> Fundamentals of algorithms	<b>FIT1057</b> Introduction to cybersecurity	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT2004</b> Algorithms and data structures	<b>FIT1049</b> IT professional practice	Commerce/Science unit	Commerce/Science unit
Year 3	First Semester	<b>FIT2094</b> Databases	<b>FIT2173</b> Software security	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT2014</b> Theory of computation	<b>Level 3 *</b> Cybersecurity Approved Elective**	Commerce/Science unit	Commerce/Science unit
Year 4	First Semester	<b>FIT3188*</b> Cybersecurity project 1	<b>FIT3185</b> Privacy enhancing technologies	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT3189 *</b> Cybersecurity project 2	<b>FIT3186</b> Vulnerability analysis, response and mitigation	Commerce/Science unit	Commerce/Science unit

#### \* Industry Based Learning (IBL)

- Students accepted into the IBL program completing the Cybersecurity specialisation will replace FIT3188 and FIT3189 and the Level 3 Cybersecurity Approved Elective with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 2 of third year or semester 1 of fourth year.
- Students completing an IBL placement must overload in one semester OR complete a summer unit to complete the course in 4 years.

#### \*\*Approved Cybersecurity Electives (choose 1)

FIT3031 Network security  
 FIT3168 IT forensics  
 FIT3184 Cloud computing

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

# Bachelor of Computer Science – 2026

## Double degrees with Commerce and Science (B2008, S2004)

### Data science specialisation

Year 1	First Semester	<b>FIT1045</b> Introduction to programming	<b>FIT1047</b> Introduction to computer systems, networks and security	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT1058</b> Foundations of computing	<b>FIT1043</b> Introduction to data science	Commerce/Science unit	Commerce/Science unit
Year 2	First Semester	<b>FIT1008</b> Fundamentals of algorithms	<b>FIT1049</b> IT professional practice	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT2004</b> Algorithms and data structures	<b>FIT2086</b> Modelling for data analysis	Commerce/Science unit	Commerce/Science unit
Year 3	First Semester	<b>FIT2094</b> Databases	<b>FIT2179</b> Data visualisation	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT2014</b> Theory of computation	<b>Level 3*</b> Data Science Approved Elective**	Commerce/Science unit	Commerce/Science unit
Year 4	First Semester	<b>FIT3163 *</b> Data science project 1	<b>Level 3*</b> Data Science Approved Elective**	Commerce/Science unit	Commerce/Science unit
	Second Semester	<b>FIT3164 *</b> Data science project 2	<b>FIT3152</b> Data analytics	Commerce/Science unit	Commerce/Science unit

\*\*Approved Data Science Electives (choose 1)

FIT3003 Business intelligence and data warehousing

FIT3154 Advanced data analysis

FIT3181 Deep learning

FIT3182 Big data management and processing

FIT3183 Malicious AI and dark side security

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

#### \* Industry Based Learning (IBL)

- Students accepted into the IBL program completing the Data science specialisation will replace FIT3163 and FIT3164 and one Level 3 Data Science Approved Elective with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 2 of third year or semester 1 of fourth year.
- 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 Commerce/Science and Bachelor of Computer Science: 32 units x 6cp = Total of 192 credit points
<b>Unit requisites</b>	All pre-requisite and co-requisite requirements must be undertaken to 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>

2026 BCS 4-year doubles - SEP 2025

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While the information provided here was correct at the time of viewing and/or printing, you should carefully read all official correspondence and other sources of information for students to stay informed about any changes. Consult with the relevant faculty officers if in doubt when planning your course. Some units described may change or may not be offered due to insufficient enrolments or changes to teaching personnel.