

Bachelor of Computer Science – 2026
Double degrees with Commerce and Science (B2008, S2004)
Algorithms and software specialisation

Year 1	First Semester	FIT1045 Introduction to programming	FIT1047 Introduction to computer systems, networks and security	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT1058 Foundations of computing OR MAT1830 Discrete mathematics for computer science	FIT1049 IT professional practice	Commerce/Science unit	Commerce/Science unit
Year 2	First Semester	FIT1008 Fundamentals of algorithms OR FIT2115 Data structures and algorithms 1	FIT2094 Databases	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT2004 Algorithms and data structures OR FIT3234 Data structures and algorithms 2	FIT2102 Programming paradigms	Commerce/Science unit	Commerce/Science unit
Year 3	First Semester	FIT2014 Theory of computation	FIT2099 Object-oriented design and implementation	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT2109 Computer science workshop	Level 3 * Algorithms and software Approved Elective**	Commerce/Science unit	Commerce/Science unit
Year 4	First Semester	FIT3161 * Computer science project 1 OR FIT3230 Computer science in practice: project 1	FIT3155 Advanced data structures and algorithms	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT3162 * Computer science project 2 OR FIT3231 Computer science in practice: project 2	FIT3143 Parallel computing	Commerce/Science unit	Commerce/Science unit

** Approved Algorithms and software electives (choose 1)

FIT3080 Artificial intelligence	FIT3195 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 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	FIT1045 Introduction to programming	FIT1047 Introduction to computer systems, networks and security	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT1058 Foundations of computing Replace with: MAT1830 Discrete mathematics for computer science	FIT1061 Introduction to artificial intelligence	Commerce/Science unit	Commerce/Science unit
Year 2	First Semester	FIT1008 Fundamentals of algorithms Replace with: FIT2115 Data structures and algorithms 1	FIT2111 Symbolic artificial intelligence and machine learning	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT2004 Algorithms and data structures Replace with: FIT3234 Data structures and algorithms 2	FIT2112 Deep learning	Commerce/Science unit	Commerce/Science unit
Year 3	First Semester	FIT1049 IT professional practice	FIT3192* Emerging and advanced topics in artificial intelligence	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT2014 Theory of computation	FIT2094 Databases	Commerce/Science unit	Commerce/Science unit
Year 4	First Semester	FIT3193* Artificial intelligence project 1 Replace with: FIT3230 Computer science in practice: project 1	FIT3191 Generative artificial intelligence	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT3194* Artificial intelligence project 2 Replace with (from S2 2027): FIT3231 Computer science in practice: project 2	FIT3203 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	FIT1045 Introduction to programming	FIT1047 Introduction to computer systems, networks and security	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT1058 Foundations of computing Replace with: MAT1830 Discrete mathematics for computer science	FIT1093 Cybersecurity tools and techniques	Commerce/Science unit	Commerce/Science unit
Year 2	First Semester	FIT1008 Fundamentals of algorithms Replace with: FIT2115 Data structures and algorithms 1	FIT1057 Introduction to cybersecurity	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT2004 Algorithms and data structures Replace with: FIT3234 Data structures and algorithms 2	FIT1049 IT professional practice	Commerce/Science unit	Commerce/Science unit
Year 3	First Semester	FIT2094 Databases	FIT2173 Software security	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT2014 Theory of computation	Level 3 * Cybersecurity Approved Elective**	Commerce/Science unit	Commerce/Science unit
Year 4	First Semester	FIT3188* Cybersecurity project 1 Replace with: FIT3230 Computer science in practice: project 1	FIT3185 Privacy enhancing technologies	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT3189 * Cybersecurity project 2 Replace with (from S2 2027): FIT3231 Computer science in practice: project 2	FIT3186 Vulnerability analysis, response and mitigation	Commerce/Science unit	Commerce/Science unit

**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.

* 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.

Bachelor of Computer Science – 2026
Double degrees with Commerce and Science (B2008, S2004)
Data science specialisation

Year 1	First Semester	FIT1045 Introduction to programming	FIT1047 Introduction to computer systems, networks and security	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT1058 Foundations of computing Replace with: MAT1830 Discrete mathematics for computer science	FIT1043 Introduction to data science Replace with: FIT2132 Reasoning with data	Commerce/Science unit	Commerce/Science unit
Year 2	First Semester	FIT1008 Fundamentals of algorithms Replace with: FIT2115 Data structures and algorithms 1	FIT1049 IT professional practice	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT2004 Algorithms and data structures OR FIT3234 Data structures and algorithms 2	FIT2086 Modelling for data analysis	Commerce/Science unit	Commerce/Science unit
Year 3	First Semester	FIT2094 Databases	FIT2179 Data visualisation	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT2014 Theory of computation	Level 3* Data Science Approved Elective**	Commerce/Science unit	Commerce/Science unit
Year 4	First Semester	FIT3163 * Data science project 1 Replace with: FIT3230 Computer science in practice: project 1	Level 3* Data Science Approved Elective**	Commerce/Science unit	Commerce/Science unit
	Second Semester	FIT3164 * Data science project 2 Replace with (from S2 2027): FIT3231 Computer science in practice: project 2	FIT3152 Data analytics	Commerce/Science unit	Commerce/Science unit

**Approved Data Science Electives (choose 1)

FIT3003 Business intelligence and data warehousing

FIT3182 Big data management and processing

FIT3154 Advanced data analysis

FIT3183 Malicious AI and dark side security

FIT3181 Deep learning

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

Credit points	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
Unit requisites	All pre-requisite and co-requisite requirements must be undertaken to be able to enrol into a specific unit
Duration of degree	4 years full-time, 8 years part-time
Time limit	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.

2026 BCS 4-year doubles - SEP 2025 Source: Monash University 2026 Handbook - CRICOS Provider Number: 00008C

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.