Bachelor of Computer Science (C2001) – 2024
Advanced computer science specialisation

Year 1 (48 credit points)

First Semester	FIT1045 Introduction to programming	FIT1047 Introduction to computer systems, networks and security	MAT1830 Discrete mathematics for computer science	Elective
Second Semester	FIT1008 Fundamentals of algorithms [FIT1045]	FIT1049 IT professional practice [12 pts FIT study] OR FIT1055 IT professional practices and ethics	MAT1841 Continuous mathematics for computer science	Elective

Year 2 (48 credit points)

First Semester	FIT2004 Algorithms and data structures [FIT1008 and 6 pts L1 Maths]	FIT2099 Object-oriented design and implementation [One of FIT1045 or FIT1008]	FIT2094 Databases [FIT1045]	Elective
Second Semester	FIT2014 Theory of computation [FIT1008 and MAT1830]	FIT2102 Programming paradigms [FIT1008]	Elective	Elective

Year 3 (48 credit points)

First Semester	FIT3161 * Computer science project 1 [FIT2004]	Level 3 * Computer Science Approved Elective**	Elective	Elective
Second Semester	FIT3162 * Computer science project 2 [FIT3161]	FIT3155 Advanced data structures and algorithms [FIT2004]	FIT3143 Parallel computing [FIT2004]	Elective

** Approved Computer Science Electives (choose 1)

FIT3080 Artificial intelligence	FIT3165 Computer 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 Computer Science Approved Elective with FIT3045 Industry based learning (18 points).
- IBL placements will normally be completed in semester 1 of third year for BCS Advanced Computer Science students.
- Students completing an IBL placement must overload in one semester OR complete a summer unit in order to complete the course in 3 years.

Notes

Credit points	Unless specified, all units are worth 6 credit points Bachelor of Computer Science 24 units x 6 credit points = Total of 144 credit points
Year Level Requirements	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.
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	3 years full-time, 6 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.
Monash University handbook	Students should follow the course requirements for the year the course was commenced https://handbook.monash.edu/browse/By%20Faculty/FacultyofInformationTechnology