

BACHELOR OF COMPUTER SCIENCE (C2001) – 2016

Advanced Computer Science Specialisation

Year 1 (48 credit points)

First Semester	FIT1045 Algorithms and programming fundamentals in python	FIT1047 Introduction to computer systems, networks and security	MAT1830 Discrete mathematics for computer science	Elective
Second Semester	FIT1008 Introduction to computer science [FIT1045]	FIT1049 IT professional practice [12 pts FIT study]	MAT1841 Continuous mathematics for computer science	Elective

Year 2 (48 credit points)

First Semester	FIT2004 Algorithms and data structures [FIT1008]	FIT2099 Object-oriented design and implementation [One of FIT1045 or FIT1048, FIT1051, FIT1008]	Elective	Elective
Second Semester	FIT2014 Theory of computation [FIT1045 & 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*	Level 3 Computer Science Approved 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:

FIT3031	Information and network security	FIT3142	Distributed computing
FIT3077	Software engineering: architecture and design	FIT3146	Emergent technologies and interfaces
FIT3080	Intelligent systems	FIT3152	Data analytics
FIT3081	Image processing	FIT3159	Computer architecture
FIT3088	Computer graphics	FIT3165	Computer networks
FIT3094	Artificial life, artificial intelligence and virtual environments	FIT3171	Databases
FIT3139	Computational science	FIT3173	Software security
		FIT3175	Usability
		MTH3170	Network mathematics

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Note that not all units will be taught in every year and some will be offered only in alternate 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 http://monash.edu/pubs/2016handbooks/courses/index-byfaculty-it.html