BACHELOR OF COMPUTER SCIENCE ADVANCED (HONOURS) (C3001) – 2017

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]	**FIT1041** Research project 1	**MAT1841** Continuous mathematics for computer science	**Elective**

Year 2 (48 credit points)

Summer Semester	**Elective**			
First Semester	**FIT2004** Algorithms and data structures [FIT1008]	**FIT2083** Research methods in computer science [24 pts of level 1 FIT]	**Elective**	**Elective**
Second Semester	**FIT2014** Theory of computation [FIT1045 and MAT1830]	**FIT2102** Programming paradigms [FIT1008]	**FIT2082** Research project 2 [FIT1041 and FIT2083]	**Elective**

Year 3 (48 credit points)

First Semester	**FIT3153** Research-based learning OR **FIT3045** Industry-based learning (18 points)			
Second Semester	**FIT3155** Advanced data structures and algorithms [FIT2004 and FIT2102]	**FIT3143** Parallel computing [FIT2004]	**FIT3171** Databases [FIT2099]	**Level 3** Computer Science Approved Elective*

Year 4 (48 credit points)

First Semester	**FIT4441** Honours thesis – part 1	**FIT4442** Honours thesis – part 2	**Level 4/5** Computer Science Approved Elective	**Elective**
Second Semester	**FIT4443** Honours thesis – part 3	**FIT4444** Honours thesis – final	**Level 4/5** Computer Science Approved Elective	**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	FIT3173 Software security
	FIT3175 Usability
FIT3139 Computational science	MTH3170 Network mathematics

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

Notes

Credit points	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
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	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.
Monash University handbook	Students should follow the course requirements for the year the course was commenced http://monash.edu/pubs/2017handbooks/courses/index-byfaculty-it.html