

BACHELOR OF COMPUTER SCIENCE (C2001) - 2019

Advanced Computer Science Specialisation

Year 1 (48 credit points)

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|------------------------|---|---|---|-----------------|
| 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] | FIT1055 IT professional practice and ethics [12 pts FIT study] | MAT1841 Continuous mathematics for computer science | Elective |

Year 2 (48 credit points)

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|------------------------|---|---|-----------------|-----------------|
| First Semester | FIT2004 Algorithms and data structures [FIT1008 & 6 pts L1 Maths] | FIT2099 Object-oriented design and implementation [One of FIT1045, FIT1048, FIT1051, FIT1008] | Elective | Elective |
| Second Semester | FIT2014 Theory of computation [FIT1045 & MAT1830] | FIT2102 Programming paradigms [FIT1008] | Elective | Elective |

Summer Semester

FIT3199 Industry work experience
(0 credit points)

Year 3 (48 credit points)

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|------------------------|--|---|---|-----------------|
| First Semester | FIT3161 Computer science project 1 [FIT2004] | FIT3171 Databases [One of FIT1045, FIT1048, FIT1051 or ENG1003] | 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:

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|---|-------------------------------|
| FIT3031 Network security | FIT3142 Distributed computing |
| FIT3077 Software engineering: architecture and design | FIT3146 Maker Lab |
| 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 |
| FIT3139 Computational modelling and simulation | FIT3175 Usability |
| | MTH3170 Network mathematics |

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

Notes

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| 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/2019handbooks/courses/index-byfaculty-it.html |