

# BACHELOR OF COMPUTER SCIENCE (C2001) – 2026

(Specialisation : Algorithms and software )

## Year 1 / Level 1 (48 credit points)

July/Oct Semester	<b>FIT1045</b> Introduction to programming	<b>FIT1047</b> Introduction to computer systems, networks and security	<b>FIT1058</b> Foundations of computing	Elective
February Semester	<b>FIT1008</b> Fundamentals of algorithms [FIT1045 & (FIT1058 or MAT1830)]	<b>FIT1055</b> IT professional practice and ethics [12 points of FIT units]	Elective	Elective

## Year 2 / Level 2 (48 credit points)

July Semester	<b>FIT2014</b> Theory of computation [FIT1008 & (FIT1058 or MAT1830)]	<b>FIT2102</b> Programming paradigms [FIT1008]	<b>FIT2109</b> Computer science workshop [FIT1047 & 1008]	Elective
February Semester	<b>FIT2004</b> Algorithms and data structures [FIT1008 & MAT1830 or FIT1058]	<b>FIT2099</b> Object-oriented design and implementation [One of FIT1045 or FIT1051 or FIT1008]	<b>FIT2094</b> Databases [FIT1045 or FIT1051]	Elective

## Year 3 / Level 3 (48 credit points)

July Semester	<b>FIT3161</b> Computer science project 1 [FIT1055, FIT2004, FIT2094, FIT2099 & 72 pts of study inc. 60 pts of FIT/MAT units]	<b>FIT3155</b> Advanced data structures and algorithms [FIT2004]	<b>FIT3143</b> Parallel computing [FIT2004]	Elective
Summer Semester	<b>FIT3162</b> Computer science project 2 [FIT3161]			
February Semester	<b>FIT3045</b> Industry-based learning (18 points) FIT3045 is equivalent to ONE Level 3 Algorithms and software Approved Elective (6 points) + TWO Level 3 Electives (12 points)			

### Important:

- **Co-requisites and Pre-requisites units are subject to change. Please refer to the relevant [Monash unit handbook](#) or the most up-to-date information.**
- **Students must also complete all [General Studies](#) requirements as part of their degree.**

### List of elective units offered at the School of Information Technology, Monash University Malaysia.

The following electives are offered at both the Australia and Malaysia campuses. If you intend to apply for the [global intercampus program](#), please refer to the [course handbook](#) for electives which are offered specifically at the Australia campus. In addition to the minimum one level 3 algorithms and software approved elective, you can utilize the elective slots in the course map to enrol for additional level 3 algorithms and software electives.

Apart from the listed electives below, you may opt to enrol for electives offered by other courses at Monash University, provided that you fulfill the unit prerequisites.

#### Level 1 Electives

FIT1043 Introduction to data science  
FIT1051 Programming fundamentals in JAVA  
FIT1056 Introduction to software engineering  
FIT1061 Introduction to artificial intelligence

#### \*Level 3 Algorithms and software Approved Elective

FIT3080 Artificial intelligence  
FIT3159 Computer architecture  
FIT3182 Big data management and processing

#### Level 2 Electives

FIT2081 Mobile application development  
FIT2086 Modelling for data analysis  
FIT2093 Cybersecurity tools and techniques  
FIT2100 Operating systems  
FIT2101 Software engineering process and management  
FIT2107 Software quality and testing  
FIT2179 Data visualisation

#### Level 3 Electives

FIT3003 Business intelligence & data warehousing  
FIT3077 Software engineering: Architecture and design  
FIT3134 Entrepreneurship  
FIT3152 Data analytics  
FIT3154 Advanced data analysis  
FIT3175 Usability  
FIT3181 Deep learning  
FIT3183 Malicious AI & dark side security

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### Additional Notes

<b>Credit points</b>	Unless specified, all units are worth 6 credit points Bachelor of Computer Science 24 units x 6 credit points = Total of 144 credit points
<b>Year Level Requirements</b>	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.
<b>Unit requisites</b>	All pre-requisite and co-requisite requirements must be undertaken to be able to enrol into a specific unit.
<b>Duration of degree</b>	3 years full-time
<b>Course duration</b>	You have a maximum of 8 years to complete this course including any periods of intermission and suspension and must be continuously enrolled throughout.
<b>Monash University handbook</b>	Students should follow the course requirements for the year the course was commenced <a href="https://www.monash.edu/students/handbooks/faculty-info/undergrad/it">https://www.monash.edu/students/handbooks/faculty-info/undergrad/it</a>

*The placement and offering of units may be rearranged or revised based on school resources or faculty planning.*

*If you opt for the IBL and the semester placement of FIT3045 differs from the above, and/or opt for an overseas exchange program, you may need to either overload a semester, undertake a summer unit or extend an additional semester in order to complete your course. Please consult the course coordinator.*