

Bachelor of Computer Science – Software Development

BA-CS

Intake: Aug/Sept 2024

Recommended Sequence

Units are listed on your Course Planner in a recommended sequence. However, this can be amended depending on unit availability, unit progression, timetabling and the semester in which you commenced your course.

How to use your Course Planner

Refer to the below table to help explain what units are required each semester throughout your course. The units in your planner are colour-coded to assist you with mapping out your studies.

Year One

| Semester 1 Aug/Sept 2024 | | |
|----------------------------|---|----------------|
| Unit Code | Unit Name | Pre-requisites |
| COS10009 | Introduction to Programming | Nil |
| COS10026 | Computing Technology Inquiry Project | Nil |
| COS10025 | Technology in an Indigenous Context Project | Nil |
| COS10003 | Computer and Logic Essentials* | Nil |
| MPU3273 | Integrity and Anti-Corruption (Malaysian and International Students) | Nil |
| Summer Term Jan 2025 | | |
| MPU3212 | Bahasa Kebangsaan A (Malaysian students who do not have SPM Bahasa Melayu credit) | Nil |
| Semester 2 Feb/Mar 2025 | | |
| COS20007 | Object-oriented Programming | COS10009 |
| TNE10006 | Networks & Switching | Nil |
| COS20019 | Cloud Computing Architecture | 50cp |
| | Elective 1 | |
| MPU3193 | Philosophy and Current Issues (Malaysian and International Students) | Nil |

Course Information

This course has 24 units (300 credit points) consisting of

8 Core Units

100 credit points

A set of compulsory units you MUST complete as part of your Course.

8 Software Development Major Units

100 credit points

A set of compulsory units you MUST complete as part of your Course.

8 Elective Units

100 credit points

A combination of elective units / second-major / Minor

General Studies/MPU

0 credit points

* Compulsory units to complete as a pre-requisite to graduate (see statement below)

* Advisable to enroll in Year One

* Email itu@swinburne.edu.my for queries

Work-Integrated Learning Placement

(3 month) – Offer in Winter/Summer

Term

25 credit points

* ICT20016 WIL internship placement is equivalent to two elective units' exemption.

* Students need to complete at least 12 units if they want to enroll in WIL Internship placement

* WIL placement can be taken in Year 3

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All commencing students of Master, Degree, Diploma and Foundation courses will be automatically registered for the **Academic Integrity Training Module** in the first semester (Note: Students articulating from Foundation Studies are expected to undertake this unit as a refresher). There are 4 topics in this online module that are recommended for completion during Week 1-4 of your commencing study period. At the end of this module, students are required to complete a quiz comprised of 10 questions and achieve a score of at least 90%.

Ministry of Education requires that all NEW Cohorts pursuing Degree course (International and Malaysian) students must take the MPU units as a prerequisite for the award of their degree.

- Malaysian students: Must take and pass the units as a prerequisite for the award of their degree
- International students: Must attempt all coursework and final exam as a prerequisite for the award of their degree

Year Two

| Semester 1 Aug/Sept 2025 | | |
|----------------------------|---|---------------------|
| Unit Code | Unit Name | Pre-requisites |
| COS20031 | Computing Technology Design Project | COS10009 / COS10026 |
| SWE30009 | Software Testing and Reliability | COS20007 |
| COS30019 | Introduction to Artificial Intelligence* | COS20007 |
| | Elective 2 | |
| MPU3183 | Penghayatan Etika dan Peradaban (Malaysian Students Only) | Nil |
| MPU3143 | Malay Language Communication 2 (International Students Only) | Nil |
| Semester 2 Feb/Mar 2026 | | |
| COS10004 | Computer Systems | Co-req : COS10009 |
| COS30043 | Interface Design and Development | COS20007 & COS10026 |
| COS30049 | Computing Technology Innovation Project | Nil |
| | Elective 3 | |
| Winter Term Jun/Jul 2026 | | |
| ICT20016 | - Completing Work-Integrated Learning Internship as an exemption to 2 electives - Students need to complete at least 12 units to enroll - WIL internship placement can be taken in Year Three | |

Year Three

| Semester 1 Aug/Sept 2027 | | |
|----------------------------|----------------------------------|------------------|
| Unit Code | Unit Name | Pre-requisites |
| COS40005 | Computing Technology Project A | 175cp |
| COS40003 | Concurrent Programming | COS20007 |
| COS30008 | Data Structure and Patterns | COS20007 |
| | Elective 4 | |
| Semester 2 Feb/Mar 2027 | | |
| COS40006 | Computing Technology Project B | COS40005 |
| SWE30003 | Software Architecture and Design | COS20007 & 150cp |
| | Elective 4 | |

| Recommended Elective Units | | | |
|------------------------------|---|---------------------|--------------------|
| Unit Code | Unit Name | Pre-requisites | Offered in |
| INF10024 | Business Digitalisation | NIL | Feb/Mar & Aug/Sept |
| COS30017 | Software Development for Mobile Devices | COS20007 | Aug/Sept only |
| COS30020 | Advanced Web Development | COS10009 & COS10026 | Aug/Sept only |
| COS20030 | Malware Analysis | TNE10006 | Aug/Sept only |
| COS30018 | Intelligent Systems | COS20007 | Feb/Mar only |
| COS30082 | Applied Machine Learning | COS30019 | Aug/Sept only |
| SWE40006 | Software Deployment and Evolution | COS20031 / SWE30003 | Feb/Mar only |
| Minor Big Data Analytics** | | | |
| COS10022 | Data Science Principles | NIL | Feb/Mar & Aug/Sept |
| COS10082 | Applied Analytics in Business | NIL | Aug/Sept only |
| COS20083 | Advanced Data Analytics | COS10022 & COS10009 | Feb/Mar only |
| COS20028 | Big Data Architecture and Application | COS10022 & COS20007 | Aug/Sept only |

Notes

* Pre-scribed Elective