

Bachelor of Computer Science – Data Science

BA-CS

Intake: Aug/Sept 2026

Recommended Sequence

Units are listed on your Program 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 program.

Year One

Semester 1 Aug/Sept 2026		
Unit Code	Unit Name	Pre-requisites
COS10009	Introduction to Programming	Nil
COS10026	Web Technology Project	Nil
COS10025	Technology in an Indigenous Context Project	Nil
COS10003	Computer and Logic Essentials*	Nil
MPU3312	Academic Integrity and Professional Conduct <i>(Malaysian and International Students)</i>	Nil
Summer Term Jan 2027		
MPU3212	Bahasa Kebangsaan A <i>(Malaysian students who do not have SPM Bahasa Melayu credit)</i>	Nil
Semester 2 Feb/Mar 2027		
COS20007	Object-oriented Programming	COS10009
TNE10006	Networks & Switching	Nil
STA10003	Foundations of Statistics	Nil
COS10022	Data Science Principles	Nil
MPU3172	Aspirasi Negara Bangsa <i>(Malaysian Students Only)</i>	Nil
MPU3142	Malay Language Communication 2 <i>(International Students Only)</i>	Nil

Year Two

Semester 1 Aug/Sept 2027		
Unit Code	Unit Name	Pre-requisites
COS20031	Database Design Project	COS10009 / COS10026
COS30045	Data Visualisation	COS10009
STA10003	Foundations of Statistics	Nil
COS30015	IT Security	COS10009 & COS10026 & TNE10006
MPU3222	Career Development <i>(Malaysian and International Students)</i>	Nil
Semester 2 Feb/Mar 2028		
COS10004	Computer Systems	Co-req: COS10009
COS30049	Computing Technology Innovation Project	COS10009 / COS10026
COS20019	Cloud Computing Architecture	50cp
COS30019	Introduction to Artificial Intelligence*	COS20007
MPU3112	Kursus Integriti dan Antirasuah (KIAR) <i>(Malaysian and International Students)</i>	Nil
Winter Term Jun/Jul 2028		
ICT20016	<i>- Completing Work-Integrated Learning Internship (equivalent to 2 elective units)</i> <i>- Students need to complete at least 12 units to enroll</i> <i>- WIL internship placement can be taken in Year Three</i>	

Year Three

Semester 1 Aug/Sept 2028		
Unit Code	Unit Name	Pre-requisites
COS40005	Computing Technology Project A	175cp
COS20028	Big Data Architecture and Application	COS10022 & COS20007
SWE30003	Software Architecture and Design	COS20007 & 150cp
MPU3122	Falsafah dan Cabaran Semasa <i>(Malaysian Students Only)</i>	Nil
MPU3152	Citra Malaysia <i>(International Students Only)</i>	Nil
Semester 2 Feb/Mar 2029		
COS40006	Computing Technology Project B	COS40005
SWE40006	Software Deployment and Evolution	COS20031 / SWE30003
MGT10010	Ethics of Innovation	Nil
MPU3412	Service Learning <i>(Malaysian and International Students)</i>	Nil

How to use your Program 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.

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 Data Science Major Units
100 credit points

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

6 Elective Units
75 credit points

A combination of elective units

1 WIL Placement Units
25 credit points

An industry placement in a professional organization, corporation, or an institution.

General Studies/Mata Pelajaran Umum
0 credit points

* Compulsory units to complete as a pre requisite to graduate (see statement below)
* Advisable to enrol in Year One
* Email mpu@swinburne.edu.my for queries

Work-Integrated Learning Placement – Offer in Winter/Summer Term or 2 Elective Units

25 credit points
* Compulsory for students and completing WIL placement is equivalent to two elective units exemption.
* Students need to complete at least 12 units (including current semester) if they want to enrol in WIL placement
* WIL placement can be taken in Year Three
* Email wil-pu@swinburne.edu.my for queries

Ministry of Education requires all the students pursuing Degree program (International and Malaysian) to complete 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 finalexam as a prerequisite for the award of their degree

Notes

* Compulsory Pre-scribed Elective