COURSE PLANNER

Bachelor of Computer Science – Data Science
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
	Elective 1	
COS10022	Data Science Principles	Nil
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 Data Science 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 ltu@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
* Email ltu@swinburne.edu.my for queries

Year Two

Semester 1	Aug/Sept 2025	
Unit Code	Unit Name	Pre-requisites
COS20031	Computing Technology Design Project	COS10009 / COS10026
COS30045	Data Visualisation	COS10009
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
COS30049	Computing Technology Innovation Project	Nil
COS20019	Cloud Computing Architecture	50cp
SWE30003	Software Architecture and Design	COS20007 & 150cp
Winter Term	**Jun/Jul 2026**	
ICT20016	- Completing Work-Integrated Learning Internship (equivalent to 2 elective units) - Students need to complete at least 12 units to enroll - WIL internship placement can be taken in Year Three	

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 Three

Semester 1	Aug/Sept 2027	
Unit Code	Unit Name	Pre-requisites
COS40005	Computing Technology Project A	175cp
COS20028	Big Data Architecture and Application	COS10022 & COS20007
	Elective 3	
Semester 2	**Feb/Mar 2027**	
COS40006	Computing Technology Project B	COS40005
SWE40006	Software Deployment and Evolution	COS20031 / SWE30003
	Elective 4	

Recommended Elective Units

Unit Code	Unit Name	Pre-requisites	Offered in
INF10024	Business Digitalisation	NIL	Feb/Mar & Aug/Sept
COS20083	Advanced Data Analytics	COS10022 & COS10009	Feb/Mar only
COS10082	Applied Analytics in Business	NIL	Aug/Sept only
COS30008	Data Structure and Patterns	COS20007	Aug/Sept only
COS30018	Intelligent Systems	COS20007	Feb/Mar only
COS30043	Interface Design and Development	COS20007 & COS10026	Feb/Mar only
COS30015	IT Security	COS10009 & COS10026 & TNE10006	Feb/Mar & Aug/Sept
COS30020	Advanced Web Development	COS10009 & COS10026	Aug/Sept only
COS30082	Applied Machine Learning	COS30018 / COS30019	Aug/Sept only

Notes

* Pre-scribed Elective