

# Bachelor of Computer Science – Data Science BA-CS

Semester 1 | 2023

## 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   Feb/Mar 2023		
Unit Code	Unit Name	Pre-requisites
COS10009	Introduction to Programming	Nil
COS10026	Computing Technology Inquiry Project	Nil
TNE10006	Networks and Switching	Nil
COS10003	Computer and Logic Essentials*	Nil
MPU3193	Philosophy and Current Issues (Malaysian and International Students)	Nil
Winter Term   June 2023		
MPU3212	Bahasa Kebangsaan A (Malaysian students who do not have SPM Bahasa Melayu credit)	Nil
Semester 2   Aug/Sept 2023		
COS20007	Object-oriented Programming	COS10009
COS10025	Technology in an Indigenous Context Project	Nil
COS30015	IT Security*	COS10009 & COS10026 & TNE10006
COS10022	Introduction to Data Science	Nil
MPU3183	Penghayatan Etika dan Peradaban (Malaysian Students Only)	Nil
MPU3143	Malay Language Communication 2 (International Students Only)	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

## Year Two

Semester 1   Feb/Mar 2024		
Unit Code	Unit Name	Pre-requisites
COS20031	Computing Technology Design Project	COS10009 / COS10026
COS20019	Cloud Computing Architecture	50cp
COS30019	Introduction to Artificial Intelligence* Elective 1	COS20007
Semester 2   Aug/Sept 2024		
COS10004	Computer Systems	Co-req: COS10009
COS30049	Computing Technology Innovation Project	Nil
COS30045	Data Visualisation	COS10009
SWE30009	Software Testing and Reliability*	COS20007

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%.

## Year Three

Semester 1   Feb/Mar 2025		
Unit Code	Unit Name	Pre-requisites
COS40005	Computing Technology Project A	175cp
SWE30003	Software Architecture and Design	COS20007 & 150cp
SWE40006	Software Deployment and Evolution	COS20031 / SWE30003
	Elective 2	
Semester 2   Aug/Sept 2025		
COS40006	Computing Technology Project B	COS40005
COS20028	Big Data Architecture and Application	COS10022 & COS20007
	Elective 3	
	Elective 4	

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

Recommended Elective Units			
Unit Code	Unit Name	Pre-requisites	Offered in
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
COS20015	Fundamental of Data Management	COS10009	Feb/Mar only
COS30043	Interface Design and Development	COS20007 & COS10026	Feb/Mar only
COS30020	Advanced Web Development	COS10009 & COS10026	Aug/Sept only
COS30082	Applied Machine Learning	COS30018 / COS30019	Aug/Sept only

## Notes

\* Pre-scribed Elective