

# **Bachelor of Computer Science – Data Science BA-CS**

Semester 2 | 2022

#### **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 program.

### **Year One**

Semester 1					
Unit Code	Unit Name	Pre-requisites			
COS10009	Introduction to Programming	Nil			
COS10011	Creating Web Applications	Co-requisite: COS10009			
COS10003	Computer and Logic Essentials	Nil			
TNE10006	Networks and Switching	Nil			
Semester 2					
COS20007	Object-oriented Programming	COS10009			
STA10003	Foundations of Statistics	Nil			
COS20015	Fundamentals of Data Management	COS10009			
	Elective 1				

#### **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 colourcoded 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.

## 8 Elective Units

100 credit points

A combination of elective units / second-major / co-major or a Minor

## **Year Two**

Semester 1					
Unit Name	Pre-requisites				
Data Structure and Patterns	COS20007				
Data Visualisation	COS10009				
Introduction to Data Science	Nil				
Elective 2					
Semester 2					
Managing Software Projects	COS20007				
Introduction to Artificial Intelligence	COS20007				
Elective 3					
Elective 4					
	Unit Name Data Structure and Patterns Data Visualisation Introduction to Data Science Elective 2  Managing Software Projects Introduction to Artificial Intelligence Elective 3				

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					
Unit Code	Unit Name	Pre-requisites			
SWE40001	Software Engineering Project A	COS20007			
COS20028	Big Data Architecture and Application	COS20007 & COS10022			
	Elective 5				
	Elective 6				
Semester 2					
SWE40002	Software Engineering Project B	SWE40001			
ICT30005 Professional Issues in IT		200 Credit Points			
	Elective 7				
	Elective 8				

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			
COS30043	Interface Design and Development	COS10011 & COS20007	Semester 1 only			
COS10082	Applied Analytics in Business	NIL	Semester 2 only			
COS20083	Advanced Data Analytics	COS10022 & COS10009	Semester 1 only			
COS20019	Cloud Computing Architecture	COS10011 & TNE10006	Semester 1 only			
COS30082	Applied Machine Learning	COS30019	Semester 2 only			

## Notes

- Enrolment in any of the elective unit is subject to:
  - No timetable clash between selected elective units and core / major units
  - Seat availability in the selected electives