SWINBURNE UNIVERSITY OF TECHNOLOGY

Bachelor of Computer Science – Data Science BA-CS

Semester 1 | 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 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

Unit Code	Unit Name	Pre-requisites
Semester 1		
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
COS10022	Introduction to Data Science	Nil
	Elective 1	
	Elective 2	

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

Unit Code	Unit Name	Pre-requisites
Semester 1		
STA10003	Foundations of Statistics	Nil
SWE20001	Managing Software Projects	COS20007
COS20015	Fundamentals of Data Management	COS10009
	Elective 3	
Semester 2		
COS30008	Data Structure and Patterns	COS20007
COS20028	Big Data Architecture and Application	COS20007 & COS10022
COS30045	Data Visualisation	COS10009
	Elective 4	

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

Unit Code	Unit Name	Pre-requisites
Semester 1		
SWE40001	Software Engineering Project A	COS20007
ICT30005	Professional Issues in IT	200 Credit Points
COS30019	Introduction to Artificial Intelligence	COS20007
	Elective 5	
Semester 2		
SWE40002	Software Engineering Project B	SWE40001
	Elective 6	
	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.
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  International students: Must attempt all coursework and final exam as a prerequisite for the award of their degree

Unit Code	Unit Name	Pre-requisites	Offered in
Recommended Elective Units			
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