

Bachelor of Engineering (Honors) (Software) BH-ESE1

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 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		
Unit Code	Unit Name	Pre-requisites
COS10009	Introduction to Programming	Nil
MTH10013	Linear Algebra and Applications	Nil
	Elective 1 (TNE10006 Networks and Switching)	Nil
	Elective 2 (COS10011 Creating Web Application)	Co-req: COS10009
Semester 2		
MTH10012	Calculus and Applications	Nil
ENG10003	Engineering Mechanics	Nil
ENG10001	Engineering, Design and Innovation	Nil
COS20007	Object-oriented Programming	COS10009

Course Information

This course has 24 units (300 credit points) consisting of

10 Core Units

125 credit points

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

18 Software Major Units

225 credit points

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

4 Elective Units

50 credit points

A combination of elective units or a minor

Year Two

Semester 1		
Unit Code	Unit Name	Pre-requisites
COS30008	Data Structures and Patterns	COS20007
COS30019	Introduction to Artificial Intelligence	COS20007
ENG10002	Engineering Materials	Nil
	Elective 3	Nil
Semester 2		
PHY10001	Energy and Motion	Nil
ENG20009	Engineering Technology Inquiry Project	Nil
COS30043	Interface Design and Development	COS20007 & COS10011
COS20019	Cloud Computing Architecture	COS10011 & TNE10006

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
COS10025	Technology in an Indigenous Context Project	Nil
ENG20010	Engineering Technology Design Project	Nil
COS30017	Software Development for Mobile Devices	COS20007
MTH20017	Mathematical Methods and Statistics for Engineering	MTH10012 & MTH10013
EAT20008	Professional Experience in Engineering [#]	Introductory Seminar
Semester 2		
ENG30002	Engineering Technology Sustainability Project	WIL
SWE30009	Software Testing and Reliability	COS20007
SWE30003	Software Architectures and Design	COS20007
SWE30004	Software Deployment and Evolution	SWE20001

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 Four

Semester 1		
Unit Code	Unit Name	Pre-requisites
ENG40005	Engineering Technology Project A	250 credit points
TNE20003	Internet and Cybersecurity for Engineering Applications	NIL
COS40007	Artificial Intelligence for Engineering	COS10009 & 100CP
COS40003	Concurrent Programming	COS20007
Semester 2		
ENG40006	Engineering Technology Project B	ENG40005
TNE30024	Deploying Secure Engineering Applications Online	TNE20003
ENG40011	Engineering Technology Innovation Project	WIL
	Elective 4	

Recommended Elective Units			
Unit Code	Unit Name	Pre-requisites	Offered in
COS30043	Interface Design and Development	COS10011 & COS20007	Semester 1 only
COS10004	Computer Systems	Nil	Semester 2 only
COS20030	Malware Analysis	TNE10006	Semester 2 only
COS20019	Cloud Computing Architecture	COS10011 & TNE10006	Semester 1 only
COS30019	Introduction to Artificial Intelligence	COS20007	Semester 1 & 2
Minor Big Data Analytics			
COS10022	Introduction to Data Science	NIL	Semester 1 & 2
COS10082	Applied Analytics in Business	NIL	Semester 2 only
COS20083	Advanced Data Analytics	COS10022 & COS20007	Semester 1 only
COS20028	Big Data Architecture and Application	COS10022 & COS20007	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