

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 Aug/Sept 2022		
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 Feb/Mar 2023		
MTH10012	Calculus and Applications	Nil
PHY10001	Energy and Motion	Nil
ENG10001	Engineering, Design and Innovation	Nil
COS20007	Object-oriented Programming	COS10009

Course Information

This course has 33 units (400 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 Aug/Sept 2023		
Unit Code	Unit Name	Pre-requisites
COS30008	Data Structures and Patterns*	COS20007
ENG10003	Engineering Mechanics	Nil
COS10025	Technology in an Indigenous Context Project	Nil
ENG10002	Engineering Materials	Nil
Semester 2 Feb/Mar 2024		
COS20019	Cloud Computing Architecture	COS20007
ENG20009	Engineering Technology Inquiry Project	Nil
TNE20003	Internet and Cybersecurity for Engineering Applications	Nil
COS30019	Introduction to Artificial Intelligence*	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 Aug/Sept 2024		
Unit Code	Unit Name	Pre-requisites
SWE30009	Software Testing and Reliability*	COS20007
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 Feb/Mar 2025		
ENG30002	Engineering Technology Sustainability Project*	Nil
COS30043	Interface Design and Development	COS20007 & ENG20009
SWE30003	Software Architecture and Design*	COS20007
	Elective 3	

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

Year Four

Semester 1 Aug/Sept 2025		
Unit Code	Unit Name	Pre-requisites
EAT40005	Engineering Technology Project A*	287.5 credit points
TNE30024	Deploying Secure Engineering Applications Online	TNE20003
COS40003	Concurrent Programming*	COS20007
ENG40011	Engineering Technology Innovation Project*	Nil
Semester 2 Feb/Mar 2026		
EAT40006	Engineering Technology Project B*	EAT40005
COS40007	Artificial Intelligence for Engineering	COS10009 & 100CP
SWE30004	Software Deployment and Evolution*	50 credit points
	Elective 4	

Recommended Elective Units			
Unit Code	Unit Name	Pre-requisites	Offered in
COS10022	Data Science Principles	NIL	Feb/Mar & Aug/Sept
COS20015	Fundamental of Data Management	COS10009	Feb/Mar only
COS30017	Software Development for Mobile Devices	COS20007	Aug/Sept only
COS20030	Malware Analysis	TNE10006	Aug/Sept only
COS30082	Applied Machine Learning	COS30018 / COS30019	Aug/Sept only
COS10004	Computer Systems	Co-req: COS10009	Feb/Mar & Aug/Sept

Notes

EAT20008 Professional Experience in Engineering is compulsory for all engineering students and must be taken before the last semester of study as part of EAC's requirement. Introductory Seminar will be conducted in week 4 of normal semester.

* Honours merit units