COURSE PLANNER

SWINBURNE UNIVERSITY OF TECHNOLOGY

Bachelor of Engineering (Honours) (Software)
BH-ESE1
Intake: Mar 2025

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.

Year One

Semester 1	Feb/Mar 2025	
Unit Code	Unit Name	Pre-requisites
COS10009	Introduction to Programming	Nil
PHY10001	Energy and Motion	Nil
ENG10001	Humanitarian Engineering Design Project	Nil
MTH10012	Calculus and Applications	Nil
MPU3193	Integrity and Anti-Corruption (Malaysian and International Students))	Nil
Winter Term | June 2025		
MPU3212	Bahasa Kebangsaan A (Malaysian students who do not have SPM Bahasa Melayu credit)	Nil
Semester 2 | Aug/Sept 2025		
COS10025	Technology in an indigenous Context Project	Nil
ENG10002	Engineering Materials	Nil
ENG10003	Engineering Mechanics	Nil
MTH10013	Linear Algebra and Applications	Nil
MPU3183	Philosophy and Current Issues (Malaysian and International Students)	Nil

Year Two

Semester 3	Feb/Mar 2026	
Unit Code	Unit Name	Pre-requisites
	Elective unit	
COS20007	Object Oriented Programming	COS10009/SWE20004
TNE20003	Internet and Cybersecurity for Engineering Applications	Nil
ENG20009	Engineering Technology Inquiry Project	Nil
MPU3183	Penghayatan Etika dan Peradaban (Malaysian Students Only)	Nil
MPU3143	Malay Language Communication 2 (International Students Only)	Nil
Semester 4 | Aug/Sept 2026		
COS30019	Introduction to Artificial Intelligence*	COS20007
SWE30009	Software Testing and Reliability*	COS20007
COS30017	Software Development for Mobile Devices*	COS20007
ENG20010	Engineering Technology Design Project	Nil

Year Three

Semester 5	Feb/Mar 2027	
Unit Code	Unit Name	Pre-requisites
COS30043	Interface Design and Development*	COS20007 & ENG20009
COS20019	Cloud Computing Architecture	50CPs
SWE30003	Software Architecture and Design*	COS20007 & 150CPs
ENG30002	Engineering Technology Sustainability Project*	Nil
EAT20008	Professional Experience in Engineering#	Introductory Seminar
Semester 6 | Aug/Sept 2027		
COS30008	Data Structures and Patterns*	COS20007
COS40003	Concurrent Programming*	COS20007
ENG40011	Engineering Technology Innovation Project*	Nil
MTH20017	Mathematical Methods and Statistics for Engineering	MTH10012 & MTH10013

Year Four

Semester 7	Feb/Mar 2028	
Unit Code	Unit Name	Pre-requisites
EAT40005	Engineering Technology Project A*	250 CPs
SWE30004	Software Deployment and Evolution*	COS20031 OR ENG20010
COS40007	Artificial Intelligence for Engineering	COS10009 & 100CP
	Elective unit	
Semester 8 | Aug/Sept 2028		
EAT40006	Engineering Technology Project B*	EAT40005
TNE30024	Deploying Secure Engineering Applications Online	TNE20003
	Elective unit	
	Elective unit	

Recommended Elective Units			
Unit Code	Unit Name	Pre-requisites	Offered in
COS10022	Data Science Principles	NIL	Feb/Mar & Aug/Sept
COS10026	Web Technology Project	Co-req: COS10009	Feb/Mar & Aug/Sept
COS20031	Database Design Project	COS10009	Feb/Mar only

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.

Course Information

To qualify for the award of this course, students must complete 33 units (400 credit points) comprising 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.

1 Industry Placement Unit
0 credit point
A compulsory, not-for-credit unit

General Studies / Mata Pelajaran Umum
0 credit points
Compulsory units to complete as a pre-requisite to graduate (see statement below)
Advisable to enrol in Year One
Email ltu@swinburne.edu.my for queries

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%.

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

| 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