COURSE PLANNER

SWINBURNE UNIVERSITY OF TECHNOLOGY

Bachelor of Engineering (Honours) (Robotics and Mechatronics)

BH-ERM

Semester 2 | 2024

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 | Aug/Sept 2024		
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
MPU3273	Integrity and Anti-Corruption *(Malaysian and International Students)*	Nil
Semester 2 | Feb/Mar 2025		
COS10025	Technology in an indigenous Context Project	Nil
ENG10002	Engineering Materials	Nil
ENG10003	Engineering Mechanics	Nil
MTH10013	Linear Algebra and Applications	Nil
MPU3193	Philosophy and Current Issues *(Malaysian and International Students)*	Nil
Winter Term | June 2025		
MPU3212	Bahasa Kebangsaan A (Malaysian students who do not have SPM Bahasa Melayu credit)	Nil

Year Two

Semester 3 | Aug/Sept 2025		
Unit Code	Unit Name	Pre-requisites
COS20007	Object Oriented Programming	COS10009/SWE20004
MEE20006	Engineering Dynamics	MTH10013 & MTH10012 & PHY10001
MTH20017	Mathematical Methods and Statistics for Engineering	MTH10012 & MTH10013
ENG20010	Engineering Technology Design Project	Nil
MPU3183	Penghayatan Etika dan Peradaban *(Malaysian Students Only)*	MPU3183
MPU3143	Malay Language Communication 2 *(International Students Only)*	MPU3143
Semester 4 | Feb/Mar 2026		
MEE20004	Structural Mechanics	ENG10003
EEE20006@	Circuits and Electronics 1	MTH10013 & PHY10004/COS10025
MEE20007@	Design and Product Visualisation Project	ENG10001
ENG20009	Engineering Technology Inquiry Project	Nil

Year Three

Semester 5 | Aug/Sept 2026		
Unit Code	Unit Name	Pre-requisites
EEE40017@	Machine Vision	EEE20006 & MTH20014/MTH20010/MTH20017
ENG40011@	Engineering Technology Innovation Project	Nil
COS10022&	Data Science Principle	Nil
COS30019&	Introduction to Artificial Intelligence	COS20007 / COS30008
EAT20008	Professional Experience in Engineering#	Introductory Seminar
Semester 6 | Feb/Mar 2027		
RME30002@	Control and Automation	EEE20002/EEE20006 & MTH10012
TNE20003	Internet and Cybersecurity for Engineering Applications	Nil
MEE30005@	Machine Design Project	MEE20004
ENG30002@	Engineering Technology Sustainability Project	Nil

Year Four

Semester 7 | Aug/Sept 2027		
Unit Code	Unit Name	Pre-requisites
ENG40007@	Engineering Technology Project A	250 CPs
RME30003@	Robotic Control	RME30002
RME40002@	Mechatronics Systems Design	EEE20003/ENG20009
TNE30024	Deploying Secure Engineering Applications Online	TNE20003
Semester 8 | Feb/Mar 2028		
ENG40008@	Engineering Technology Project B	ENG40007
RME40003@	Robot Systems Design	250 CPs
COS40007&	Artificial Intelligence for Engineering	100CPs & COS10009
COS20019&	Cloud Computing Architecture	50CPs

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

& Recommended Elective units [Industry 4.0]. Please approach your Discipline Leader if you wish to take other elective units.

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

Each unit is equivalent to 12.5 credit points.
To qualify for the award of this course, students must complete 33 units (400 credit points) in addition of the General Studies/Mata Pelajaran Umum, comprising of:

10 Core Units
125 credit points
A set of compulsory units you MUST complete as part of your Course.

18 Robotics and Mechatronics Major Units
225 credit points
A set of compulsory units you MUST complete as part of your Course.

4 Recommended Elective Units
50 credit points
A combination of elective units or a Minor package.

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 take and pass the units as a prerequisite for the award of their degree