COURSE PLANNER

SWINBURNE UNIVERSITY OF TECHNOLOGY

Bachelor of Engineering (Honours) (Robotics and Mechatronics)
BH-ERM
Intake: Sept 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	Sept 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
MPU3272	Integrity and Anti Corruption (Malaysian and International Students)	Nil

Semester 2	Feb/Mar 2026	
COS10025	Technology in an indigenous Context Project	Nil
ENG10002	Engineering Materials	Nil
ENG10003	Engineering Mechanics	Nil
MTH10013	Linear Algebra and Applications	Nil
MPU3192	Philosophy and Current Issues (Malaysian and International Students)	Nil

Winter Term	June 2026	
MPU3212	Bahasa Kebangsaan A (*Malaysian students who do not have SPM Bahasa Melayu credit*)	Nil

Year Two

Semester 3	Aug/Sept 2026	
Unit Code	Unit Name	Pre-requisites
EEE20006@	Circuits and Electronics 1	MTH10013 & PHY10004/COS10025
MEE20006	Engineering Dynamics	MTH10013 & MTH10012 & PHY10001
MTH20017	Mathematical Methods and Statistics for Engineering	MTH10012 & MTH10013
ENG20009	Engineering Technology Inquiry Project	Nil
MPU3182	Penghayatan Etika dan Peradaban (*Malaysian Students Only*)	Nil
MPU3142	Malay Language Communication 2 (*International Students Only*)	

Semester 4	Feb/Mar 2027	
MEE20004	Structural Mechanics	ENG10003
COS20007@	Object Oriented Programming	COS10009/SWE20004
MEE20007@	Design and Product Visualisation Project	ENG10001
ENG20010	Engineering Technology Design Project	Nil
MPU3412	Service Learning	Nil

Year Three

Semester 5	Aug/Sept 2027	
Unit Code	Unit Name	Pre-requisites
EEE40017@	Machine Vision	EEE20006 & MTH20014/MTH20010/MTH20017
ENG30002@	Engineering Technology Sustainability Project	Nil
MEE20005	Materials Processing and Machining	ENG10002
EEE20005	Electrical Machine	MTH10012 & EEE20006
EAT20008	Professional Experience in Engineering#	Introductory Seminar

Semester 6	Feb/Mar 2028	
RME30002@	Control and Automation	EEE20002/EEE20006 & MTH10012
TNE20003	Internet and Cybersecurity for Engineering Applications	COS10009
MEE30005	Machine Design Project	MEE20004
ENG40011@	Engineering Technology Innovation Project	Nil

Year Four

Semester 7	Aug/Sept 2028	
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 2029	
ENG40008@	Engineering Technology Project B	ENG40007
RME40003@	Robot Systems Design	250 CPs
EEE40002	Integrated Circuit Design	ENG20009
MEE20008	Vibration, Data Analysis & Data Decomposition	MTH10012 & MTH10013

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

Any students who wish to change their elective units must obtain approval from the Head of Department.

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.

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

5 Elective Units
62.5 credit points
A combination of elective units, or a Minor.

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

4 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 programs 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 program (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