

COURSE PLANNER

Bachelor of Engineering (Honours) (Mechanical)

BH-EME

Semester 1 | 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
ENG10001	Humanitarian Engineering Design Project	Nil
COS10009	Introduction to Programming	Nil
MTH10012	Calculus and Applications	Nil
PHY10001	Energy and Motion	Nil
MPU3273	Integrity and Anti-Corruption <i>(Malaysian and International Students)</i>	Nil
Winter Term June 2025		
MPU3212	Bahasa Kebangsaan A <i>(Malaysian students who do not have SPM Bahasa Melayu credit)</i>	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
MPU3193	Philosophy and Current Issues <i>(Malaysian and International Students)</i>	Nil

Year Two

Semester 3 Feb/Mar 2026		
Unit Code	Unit Name	Pre-requisites
MEE20001	Thermodynamics	PHY10001
MEE20004	Structural Mechanics	ENG10002/ENG10003
MEE20007	Design and Product Visualisation Project	ENG10001
MTH20010	Statistics and Computation for Engineering (Elective 1)	MTH10013 & MTH10012
MPU3183	Penghayatan Etika dan Peradaban <i>(Malaysian Students Only)</i>	Nil
MPU3143	Malay Language Communication 2 <i>(International Students Only)</i>	Nil
Semester 4 Aug/Sept 2026		
MEE20003	Fluid Mechanics 1: Forces and Energy	MTH10013 & MTH10012
MEE20005	Materials Processing and Machining	ENG10002
MEE20006	Engineering Dynamics	MTH10013 & MTH10012 & PHY10001
MME30002 *	Engineering Management Project	100 credit points

Year Three

Semester 5 Feb/Mar 2027		
Unit Code	Unit Name	Pre-requisites
MEE20008	Vibration, Data Analysis and Data Decomposition	MTH10012 & MTH10013
MEE30001 *	Manufacturing Engineering	MEE20005
MEE30002 *	Control Engineering	Co-requisite: MEE20008 Or Pre-requisites: MTH20011
MEE30005 *	Machine Design Project	MEE20004
EAT20008 #	Professional Experience in Engineering	Introductory Seminar
Semester 6 Aug/Sept 2027		
MEE30004 *	Solid Mechanics	MEE20004
MEE40001 *	Heat Transfer	MEE20001 OR MTH20010
MEE40010 *	Integrated Engineering Design Project	MEE30005
	Elective 2	

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.

17 Mechanical Major Units

212.5 credit points

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

5 Recommended Elective Units

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

Year Four

Semester 7 Feb/Mar 2028		
Unit Code	Unit Name	Pre-requisites
ENG40005 *	Final Year Capstone Project 1	287.5 credit points
MEE40003 *	Machine Dynamics	MEE20006
MEE40050	Elective 3 Introduction to Building Services Engineering (Elective 4)	200 credit points
Semester 8 Aug/Sept 2028		
ENG40006 *	Final Year Capstone Project 2	ENG40005
MEE40004 *	Fluid Mechanics 2: Machine, Supersonics and Modelling	MEE20003
MEE40011 *	Renewable Energy and Hydrogen Technologies	Nil
MEE40051	Heating, Ventilation, and Air Conditioning (Elective 5)	MEE20001 & MEE20003

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.
- ** Elective units

Elective Options for Bachelor of Engineering (Honours) (Mechanical), BH-EME

Unit Code	Unit Name	Pre-requisite	Remarks
MEE40050	Introduction to Building Services Engineering	200 CPS	Semester 1
MEE40051	Heating, Ventilation, and Air Conditioning	MEE20001 & MEE20003	Semester 2
MTH20010	Statistics and Computation for Engineering	MTH10013 & MTH10012	Semester 1
RME40003	Robot System Design	250 CPS	Semester 1
EEE80015	Renewable Energy	200 CPS	Semester 1
CEE20005	Engineering Chemistry	Nil	Semester 1
CEE20004	Process Safety and Sustainability	ENG10001	Semester 2
PEH20004	Built and Sustainable Communities	Nil	Semester 2
QSB20003	Cost Planning and Control	Nil	Semester 1
QSB20006	Introduction to Construction Law and Contracts	Nil	Semester 1