

COURSE PLANNER

Bachelor of Engineering (Honours) (Electrical and Electronic)

BH-EEE

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.

Year One

Semester 1 Aug/Sept 2022		
Unit Code	Unit Name	Pre-requisites
ENG10003	Mechanics of Structures	Nil
ENG10004	Digital and Data Systems	Nil
PHY10004	Electronics and Electromagnetism	Nil
MTH10013	Linear Algebra and Applications	Nil
MPU3193	Philosophy and Current Issues <i>(Malaysian and International Students)</i>	Nil
Semester 2 Feb/Mar 2023		
MTH10012	Calculus and Applications	Nil
ENG10001	Engineering, Design and Innovation	Nil
ENG10002	Engineering Materials	Nil
PHY10001	Energy and Motion	Nil
☐MPU3183	Penghayatan Etika dan Peradaban <i>(Malaysian Students Only)</i>	Nil
☐MPU3143	Malay Language Communication 2 <i>(International Students Only)</i>	Nil
Winter Term July 2023		
☐MPU3212	Bahasa Kebangsaan A <i>(Malaysian students who do not have SPM Bahasa Melayu credit)</i>	Nil

Year Two

Semester 3 Aug/Sept 2023		
Unit Code	Unit Name	Pre-requisites
COS10022	Introduction to Data Science ^{&}	Nil
TNE30003	Communications Principles	MTH10012 & MTH10013
MME30001	Engineering Management 1 [@]	100 credit points
SWE20004	Technical Software Development	ENG10004
Semester 4 Feb/Mar 2024		
COS20083	Advance Data Analytics ^{&}	Nil
EEE20002	Circuits and Systems	MTH10012, MTH10013 & PHY10004
MTH20014	Mathematics 3B	MTH10012 & MTH10013
EEE20001	Digital Electronics Design	Nil

Year Three

Semester 5 Aug/Sept 2024		
Unit Code	Unit Name	Pre-requisites
EEE20004	Analogue Electronics 1	EEE20002
EEE30004	Digital Signal Processing [@]	MTH20014 & EEE20002
EEE20003	Embedded Microcontrollers	EEE20001 & SWE20004
EEE20005	Electrical Machines	EEE20002 & MTH10012
EAT20008	Professional Experience in Engineering [#]	Introductory Seminar
Semester 6 Feb/Mar 2025		
EEE30001	Analogue Electronics 2 [@]	EEE20004
RME30002	Control and Automation [@]	PHY10004 & MTH20014
EEE30002	Electrical Power Systems [@]	EEE20005
EEE40002	Integrated Circuit Design [@]	EEE20001

Year Four

Semester 7 Aug/Sept 2025		
Unit Code	Unit Name	Pre-requisites
ENG40001	Final Year Research Project 1 [@]	287.5 credit points
EEE30005	Electrical Integrated Design Project [@]	EEE30002
EEE40005	Power Electronics [@]	EEE20005
EEE40007	Power System Operation and Control [@]	EEE30002
Semester 8 Feb/Mar 2026		
ENG40002	Final Year Research Project 2 [@]	ENG40001
COS30018	Intelligent Systems ^{&}	SWE20004
PHY40001	Electromagnetic Waves [@]	MTH20014
EEE80015	Renewable Energy ^{&}	100 credit points

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:

12 Core Units 150 credit points

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

16 Electrical and Electronic Major Units 200 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

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 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

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]. You may choose other approved elective units from the published elective list for Electrical and Electronic. Enrolment in the selected elective units is subject to:
 - Discipline Leader Approval
 - No timetable clash between selected elective units and core / major units
 - Seat availability in the selected electives
 - Selected elective units are offered in the current semester

Elective Units Listing

Bachelor of Engineering (Honours) (Electrical and Electronic)

BH-EEE

Elective Units			
Unit Code	Unit Name	Pre-requisites	Offered in
EEE80007	Electrical Power Systems Safety	EEE30002 Electrical Power Systems	Semester 1 only
EEE80015	Renewable Energy ^{&}	100 Credit Points	Semester 1 only
TNE10006	Network and Switching	Nil	Semester 1 & 2
COS10082	Applied Analytics in Business	Nil	Semester 2 only
COS10022	Introduction to Data Science ^{&}	Nil	Semester 1 & 2
COS10011	Creating Web applications	COS10009 / SWE20004 (CR)	Semester 1 & 2
COS20001	User-Centred Design	Nil	Semester 1 & 2
COS20007	Object Oriented Programming	COS10001 / COS10009 / INF10016 / SWE20004	Semester 1 & 2
SWE20001	Managing software projects	SWE20004 / COS10009	Semester 1 & 2
COS30008	Data Structures and Patterns	COS20007 / COS30016 / SWE20004 / COS20011	Semester 2 only
COS30019	Introduction to Artificial Intelligence	COS20007 / COS30008	Semester 1 & 2
COS30018	Intelligent Systems ^{&}	COS10022/ SWE20004	Semester 1 only
COS30017	Software Development for Mobile Devices	COS20007 / COS20011 / COS30014 / SWE20004	Semester 1 & 2
COS20028	Big Data Architecture and Application	COS10022 & (COS20007 / COS30016)	Semester 2 only
COS20083	Advanced Data Analytics^{&}	COS10022/ SWE20004/ COS30018	
SWE30011	IoT Programming	COS10011 & (COS20007 / SWE20004)	Semester 1 only
MEE20003	Fluid Mechanics 1	MTH10007 / (MTH10012 & MTH10013)	Semester 1 & 2
MEE20001	Thermodynamics 1	PHY10001	Semester 1 only
MEE30004	Solid Mechanics	MEE20004	Semester 2 only
MEE20005	Materials & Manufacturing 1	MEE10001 / ENG10002	Semester 2 only
MEE40050	Introduction to Building Services Engineering	200 Credit Points	Semester 1 only
BIO10001	Concepts of Biology	NIL	Semester 1 & 2
CHE10001	Chemistry 1	NIL	Semester 1 & 2
BIO10003	Concepts of Biotechnology	NIL	Semester 2 only
BCH20002	Introduction to Biochemistry	CHE10001 and BIO10001	Semester 1 only

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