

# COURSE PLANNER

## Bachelor of Engineering (Honours)(Chemical)

SK401

Semester 1 | 2023

### 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 2023		
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
MPU3193	Philosophy and Current Issues (Malaysian and International Students)	Nil
Winter Term   June 2023		
MPU3212	Bahasa Kebangsaan A (Malaysian students who do not have SPM Bahasa Melayu credit)	Nil
Semester 2   Aug/Sept 2023		
COS10025	Technology in an Indigenous Context Project	Nil
MTH10013	Linear Algebra and Applications	Nil
ENG10002	Engineering Materials	Nil
ENG10003	Mechanics of Structures	Nil
MPU3183	Penghayatan Etika dan Peradaban (Malaysian Students Only)	Nil
MPU3143	Malay Language Communication 2 (International Students Only)	Nil

## Year Two

Semester 3   Feb/Mar 2024		
Unit Code	Unit Name	Pre-requisites
CEE20001	Introduction to Chemical Engineering Design	ENG10001
CEE20005	Engineering Chemistry	Nil
MTH20010	Statistics and Computation for Engineering	MTH10013 & MTH10012
COS10022**	Introduction to Data Science	Nil
Semester 4   Aug/Sept 2024		
CEE20002	Chemical Engineering Thermodynamics	Nil
CEE20003	Fluid Mechanics C	MTH10012 & MTH10013
CEE20004	Process Safety and Sustainability	ENG10001
SWE20004**	Technical Software Development	ENG10004

## Year Three

Semester 5   Feb/Mar 2025		
Unit Code	Unit Name	Pre-requisites
CEE30002	Reaction Engineering	ENG10002
CEE30004*	Process Heat Transfer	CEE20002
CEE30006*	Process Modelling and Optimisation	CEE20001 & MTH20010
CEE30007*	Process Control & Measurements	MTH20010
EAT20008 #	Professional Experience in Engineering	Introductory Seminar
Semester 6   Aug/Sept 2025		
CEE30001*	Transport Phenomena	CEE20002 & CEE20003
CEE30003*	Process Mass Transfer	CEE20002
CEE30005*	Multiphase Processes	CEE20003
MME30002*	Engineering Management Project	100 Credit points

## Year Four

Semester 7   Feb/Mar 2026		
Unit Code	Unit Name	Pre-requisites
CEE30008	Environmental Engineering	CEE20001
CEE40002*	Process Plant Design 1	CEE30006 & 275 Credit points
ENG40005*	Final Year Capstone Project 1	287.5 credit points
COS20083**	Advance Data Analytics	COS10081 & SWE20004
Semester 8   Aug/Sept 2026		
CEE40004*	Process Plant Design 2	CEE40002
MME40011*	Renewable Energy and Hydrogen Technologies	100 Credit points
ENG40006*	Final Year Capstone Project 2	ENG40005
BIO10003**	Concepts of Biotechnology	250 credit points

### 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 (tentative)

\*\* 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) comprising of:

#### 12 Core Units

150 credit points

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

#### 16 Chemical Major Units

200 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 [tu@swinburne.edu.my](mailto: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