## **COURSE PLANNER**

# **Bachelor of Engineering (Honours) (Civil)**

## **BH-ECV**

Semester 2 | 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**

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)  Semester 2   Feb/Mar 2024  ENG10002 Engineering Materials Nil  ENG10003 Engineering Mechanics Nil  MTH10013 Linear Algebra and Applications Nil  COS10025 Technology in an Indigenous Context Project Nil  MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only)  MPU3143 Malay Language Communication 2 (International Students Only)  Winter Term   June 2024  Bahasa Kebangsaan A  MPU3212 (Malaysian students who do not have SPM Bahasa Melayu credit)							
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)  Semester 2   Feb/Mar 2024  ENG10002 Engineering Materials Nil ENG10003 Engineering Mechanics Nil MTH10013 Linear Algebra and Applications Nil COS10025 Technology in an Indigenous Context Project Nil MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only) MPU3143 Malay Language Communication 2 (International Students Only) Winter Term   June 2024  Bahasa Kebangsaan A MPU3212 (Malaysian students who do not have SPM Bahasa Nil		Semester 1   Aug/Sept 2023					
COS10009 Introduction to Programming Nil MTH10012 Calculus and Applications Nil PHY10001 Energy and Motion Nil MPU3193 Philosophy and Current Issues (Malaysian and International Students)  Semester 2   Feb/Mar 2024 ENG10002 Engineering Materials Nil ENG10003 Engineering Mechanics Nil MTH10013 Linear Algebra and Applications Nil COS10025 Technology in an Indigenous Context Project Nil MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only) MPU3143 Malay Language Communication 2 (International Students Only) Winter Term   June 2024  Bahasa Kebangsaan A MPU3212 (Malaysian students who do not have SPM Bahasa Nil		Unit Code	Unit Name	Pre-requisites			
MTH10012 Calculus and Applications Nil PHY10001 Energy and Motion Nil  MPU3193 Philosophy and Current Issues (Malaysian and International Students)  Semester 2   Feb/Mar 2024  ENG10002 Engineering Materials Nil ENG10003 Engineering Mechanics Nil MTH10013 Linear Algebra and Applications Nil COS10025 Technology in an Indigenous Context Project Nil  MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only)  MPU3143 Malay Language Communication 2 (International Students Only)  Winter Term   June 2024  Bahasa Kebangsaan A  MPU3212 (Malaysian students who do not have SPM Bahasa Nil		ENG10001	Humanitarian Engineering Design Project	Nil			
PHY10001 Energy and Motion Nil  MPU3193 Philosophy and Current Issues (Malaysian and International Students)  Semester 2   Feb/Mar 2024  ENG10002 Engineering Materials Nil ENG10003 Engineering Mechanics Nil MTH10013 Linear Algebra and Applications Nil COS10025 Technology in an Indigenous Context Project Nil  MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only)  MPU3143 Malay Language Communication 2 (International Students Only)  Winter Term   June 2024  Bahasa Kebangsaan A MPU3212 (Malaysian students who do not have SPM Bahasa Nil		COS10009	Introduction to Programming	Nil			
MPU3193 Philosophy and Current Issues (Malaysian and International Students)  Semester 2   Feb/Mar 2024  ENG10002 Engineering Materials Nil ENG10003 Engineering Mechanics Nil MTH10013 Linear Algebra and Applications Nil COS10025 Technology in an Indigenous Context Project Nil  MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only)  MPU3143 Malay Language Communication 2 (International Students Only)  Winter Term June 2024  Bahasa Kebangsaan A  MPU3212 (Malaysian students who do not have SPM Bahasa Nil		MTH10012	Calculus and Applications	Nil			
MPU3193  (Malaysian and International Students)  Semester 2   Feb/Mar 2024  ENG10002		PHY10001	Energy and Motion	Nil			
ENG10002 Engineering Materials Nil ENG10003 Engineering Mechanics Nil MTH10013 Linear Algebra and Applications Nil COS10025 Technology in an Indigenous Context Project Nil MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only) MPU3143 Malay Language Communication 2 (International Students Only) Winter Term June 2024  Bahasa Kebangsaan A MPU3212 (Malaysian students who do not have SPM Bahasa Nil		MPU3193		Nil			
ENG10003 Engineering Mechanics Nil MTH10013 Linear Algebra and Applications Nil COS10025 Technology in an Indigenous Context Project Nil MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only) MPU3143 Malay Language Communication 2 (International Students Only) Winter Term June 2024  Bahasa Kebangsaan A MPU3212 (Malaysian students who do not have SPM Bahasa Nil		Semester 2   Fe	b/Mar 2024				
MTH10013 Linear Algebra and Applications Nil COS10025 Technology in an Indigenous Context Project Nil  MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only)  MPU3143 Malay Language Communication 2 (International Students Only)  Winter Term June 2024  Bahasa Kebangsaan A  MPU3212 (Malaysian students who do not have SPM Bahasa Nil		ENG10002	Engineering Materials	Nil			
COS10025 Technology in an Indigenous Context Project Nil  MPU3183 Penghayatan Etika dan Peradaban (Malaysian Students Only)  MPU3143 Malay Language Communication 2 (International Students Only)  Winter Term June 2024  Bahasa Kebangsaan A  MPU3212 (Malaysian students who do not have SPM Bahasa Nil		ENG10003	Engineering Mechanics	Nil			
MPU3183  Penghayatan Etika dan Peradaban (Malaysian Students Only)  MPU3143  Malay Language Communication 2 (International Students Only)  Winter Term   June 2024  Bahasa Kebangsaan A  MPU3212  (Malaysian students who do not have SPM Bahasa Nil		MTH10013	Linear Algebra and Applications	Nil			
MPU3183  (Malaysian Students Only)  Malay Language Communication 2 (International Students Only)  Winter Term   June 2024  Bahasa Kebangsaan A  MPU3212  (Malaysian students who do not have SPM Bahasa Nil		COS10025	Technology in an Indigenous Context Project	Nil			
Winter Term   June 2024  Bahasa Kebangsaan A MPU3212 (Malaysian students who do not have SPM Bahasa Nil		MPU3183	3 ,	Nil			
Bahasa Kebangsaan A MPU3212 (Malaysian students who do not have SPM Bahasa Nil		MPU3143		Nil			
MPU3212 (Malaysian students who do not have SPM Bahasa Nil	Winter Term   June 2024						
		MPU3212	(Malaysian students who do not have SPM Bahasa	Nil			

#### **Year Two**

Semester 3   Aug/Sept 2024				
Unit Code	Unit Name	Pre-requisites		
CVE20015	Digital Engineering Project	Concurrent CVE10002, ENG10003		
MEE20003	Fluid Mechanics 1	MTH10012 & MTH10013		
MME30002 <sup>+</sup>	Engineering Management Project	100 CPS		
CVE20004	Geomechanics	ENG10003		
Semester 4   Feb/Mar 2025				
CVE20001	Topographical Engineering	MTH10012		
CVE30001 <sup>+</sup>	Urban Water Resources	MEE20003		
CVE40001**	Geotechnical Engineering	CVE20004		
MEE20004	Structural Mechanics	ENG10003		

### **Year Three**

Semester 5   Aug/Sept 2025					
<b>Unit Code</b>	Unit Name	Pre-requisites			
CVE20003	Design of Concrete Structures	MEE20004			
CVE20005	Road Engineering	CVE20001			
CVE40011 <sup>†</sup>	Engineering Data Analytics and	CVE20015 OR CVE20002			
	Applications				
Elective code**	Approved Elective 1	Unit dependent			
EAT20008#	Professional Experience in Engineering	Introductory Seminar			
Semester 6   Feb/Mar 2026					
CVE30002 <sup>+</sup>	Design of Steel Structures	MEE20004			
CVE30003 <sup>+</sup>	Transport Engineering	CVE20005			
MTH20010	Statistics and Computation for Engineering	MTH10012 & MTH10013			
Elective code**	Approved Elective 2	Unit dependent			

## **Year Four**

Semester 7   Aug/Sept 2026				
Unit Code	Unit Name	Pre-requisites		
ENG40005**	Final Year Capstone Project 1	287.5 CPS		
CVE30005 <sup>+</sup>	Cost Engineering Project	175 CPS		
CVE40010**	Water Engineering Design Project	CVE30001		
CVE40006**	Infrastructure Design Project	CVE20003 & CVE30002		
Semester 8   Feb/Mar 2027				
ENG40006**	Final Year Capstone Project 2	ENG40005 or ENG40001		
CVE40002**	Structural Design of Low Rise Buildings	CVE20003 & CVE30002		
Elective code**	Approved Elective 3	Unit dependent		
Elective code**	Approved Elective 4	Unit dependent		

### 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. The introductory Seminar will be conducted in week 4 of the normal semester.
- \* 6 Outcome units completion demonstrates the attainment of course learning outcomes
   † 12 Honours merit units the results are used in the honours merit calculation
- \*\* 4 Elective units (including IR 4.0 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 32 units (400 credit points), EAT20008 and 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 Civil 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\*\*, including Fourth Industrial Revolution (IR 4.0) units.

## 1 Industry Placement Unit

0 credit point

EAT20008# is a COMPULSORY, non-credit unit.

#### General Studies/Mata Pelajaran Umum

0 credit points

- \* Compulsory units to complete as a prerequisite to graduate (see statement below)
- \* Advisable to enrol in Year One
- \* Email <a href="mailto:ltu@swinburne.edu.my">ltu@swinburne.edu.my</a> 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