

Engineering Re-enrolment Guide 2022
Re-enrolment period: 11 October – 26 November 2021
Re-enrolment WES

July and October 2019 Intake

Reminder: You are required to re-enrol for both Semester 1 (Feb-June) and Semester 2 (July-Nov) 2022

The normal units for each of the branches of engineering are as follows.

Chemical Engineering

1) Semester 1 2022 units

CHE3161	Chemistry and chemical thermodynamics
CHE3165	Separation processes
CHE4161	Engineer in society
CHE3163	Sustainable processing I

2) Semester 2 2022 units

ENG4701	Final year project A
CHE4170	Design project

***Biotechnology or Nanotechnology**

Select 1 out of 2

CHE4171	Biochemical engineering (if taken CHE3171). If students had taken CHE3171 and CHE4171, then to enroll in CHE3172.
CHE4172	Nanotechnology and materials 2 (if taken CHE3172). If students had taken CHE3172 and CHE4172, then to enroll in CHE3171.

Civil Engineering

1) Semester 1 2022 units

Core units

CIV3248	Groundwater and environmental geomechanics
CIV3285	Engineering hydrology
CIV4280	Bridge design and assessment

Select 1 elective

CIV4234	Advanced structural analysis
CIV4284	Traffic systems

Civil Engineering (continue)

2) Semester 2 2022 units

ENG4701	Final year project A
CIV4212	Civil and environmental engineering practice
CIV4288	Water treatment

Select 1 elective

CIV4249	Foundation engineering
CIV4268	Water resource management
CIV4283	Transport planning

* please check with school nearer to the start of semester for any update/new electives

Electrical and Computer Systems Engineering

1) Semester 1 2022 units

Core units

ECE3073	Computer systems
ECE3161	Analog electronics
ECE3051	Electrical energy systems

Select one of the following electives *

ECE4032	Advanced control
ECE4076	Computer vision
ECE4179	Neural networks and deep learning
TRC3500	Sensors and artificial perceptions

2) Semester 2 2022 units

Core units:

ENG4701	Project A <i>You are required to submit thesis title preference/selection form manually as part of enrolment. Check with the final year project coordinator about the details and deadlines before semester starts</i>
ECE4191	Engineering design (If ECE3091 was not taken)

Plus select two/three of the following electives

ECE4078	Intelligent robotics
ECE4810	Internet of Things: communication, data and security
ECE4122	Advanced electromagnetics
ECE4808	Organic electronics and micro devices
ECE4809	Solid state lighting
ECE4053	Electrical energy – generation and supply <i>Note: # Compulsory elective for students on Malaysia campus in order to cover compulsory broad engineering areas prescribed by Engineering Accreditation Council (EAC) of Malaysia</i>
ECE5886	Smart grids **
MEC5886	Sustainable energy technologies**

** should have completed 132 credits with a WAM > 65%

Mechanical Engineering

1) Semester 1 2022 units

MEC3451	Fluid mechanics II
MEC3455	Solid mechanics
MEC3456	Engineering computational analysis

Select 1 elective below

MEC3800	Introduction to Reliability Engineering
MEC3448	Engineering Technologies
MEC4801	Non-destructive testing and inspection

2) Semester 2 2022 units

Core units

ENG4701	Final year project A
MEC4407	Design Project
MEC4426	Computer-aided design

Select 1 elective below

MEC4444	Industrial noise and control
MEC4804	Clean Energy materials
MEC5886	Sustainable energy technologies*
MEC5801	Industrial ecology*
MEC5897	Lean manufacturing*

* to enroll into these units, students need to get a WAM > 65% from their studies in Levels 1-3

Robotics and Mechatronics Engineering (Artificial Intelligence Stream)

1) Semester 1 2022 units

ECE3161	Analogue Electronics
TRC3200	Dynamical Systems
TRC3500	Sensors and artificial perception
ECE4179	Neural networks and deep learning

Plus any of the electives below (if there is an empty slot above)*

ECE3051	Electrical energy systems***
ECE4032	Advanced control
TRC4200	Engineering cyber-physical systems

* please check with the school before the start of semester for any update to offerings of electives

*** compulsory units to be taken before graduation for accreditation in Malaysia

Robotics and Mechatronics Engineering (Artificial Intelligence Stream) [continue]

2) Semester 2 2022 units

ENG4701	Final Year Project A
TRC4800	Robotics
ECE4078	Intelligent Robotics

Plus any of the electives below (if there is an empty slot above)*

TRC5901	Advanced artificial intelligence**
TRC4902	Mechatronics and manufacturing
ECE4808	Organic electronics and micro devices

* please check with the school before the start of semester for any update to offerings of electives

** to enroll into these units, students need to get a WAM > 65% from their studies in Levels 1-3

Robotics and Mechatronics Engineering (Automation Stream)

3) Semester 1 2022 units

ECE3161	Analogue Electronics
TRC3200	Dynamical Systems
TRC3500	Sensors and artificial perception
ECE3051	Electrical energy systems

Plus any of the electives below

ECE4032	Advanced control
TRC4200	Engineering cyber-physical systems
ECE4179	Neural networks and deep learning

4) Semester 2 2022 units

ENG4701	Final Year Project A
TRC4800	Robotics
TRC4902	Mechatronics and manufacturing
TRC3000	Automation project

Plus any of the electives below (if there is an empty slot above)

TRC5901	Advanced artificial intelligence**
ECE5886	Smart grids**
ECE4808	Organic electronics and micro devices
ECE4078	Intelligent robotics

* please check with school nearer to the start of semester for the update/new 4th year electives

** to enroll into these units, students need to get a WAM > 65% from their studies in Levels 1-3

Software Engineering

1) Semester 1 2022 units

Core units (Non IBL students)

FIT4002	Software engineering studio project
FIT3159	Computer architecture

Select 2 out of 4 electives

FIT5202	Data processing for big data (Level 4 and above Technical Elective) *
FIT3081	Image processing
FIT3134	Entrepreneurship
FIT3152	Data analytic

2) Semester 2 2022 units

Core units (Non IBL students)

FIT4002	Software engineering studio project
FIT4003	Software engineering research project**

Select 1 out of 5 electives (applicable for IBL and non-IBL students)

FIT4009	Advanced topics in intelligent systems (Level 4 Technical Elective)*
FIT3080	Artificial Intelligence
FIT3003	Business intelligence and data warehousing
FIT3175	Usability
FIT3179	Data visualization
FIT3181	Deep learning
FIT3183	Malicious AI and dark side security

3) Semester 1 2022 units

Core units (IBL students)

FIT3170	Software engineering practice
FIT3159	Computer architecture
Elective	Follow recommendation from 1)

4) Semester 2 2022 units

Core units (IBL students)

FIT3170	Software engineering practice
FIT4003	Software engineering research project**
Elective	Follow recommendation from 2)

* students are required to enroll for at least ONE (1) SE Technical Elective at level 4 or above.

** FIT4003 is now updated as a compressed 12 credit point unit, offered over 1 semester. Hence, students will only enroll for 3 units in S2 (still add up to 24 cp)

Important for all engineering students

Please take note that besides the academic requirements, all students must also satisfy both the **Industrial Training** (12 weeks) and **the Malaysian National Subjects** requirements before the engineering degree can be awarded.

Students completing 3rd year (6 semesters of study) and having a minimum of 120 credits will be eligible for industrial training. Students are to submit their industrial training report within 4 weeks of completion of their industrial training.

Check with Malaysian National Subjects (Compulsory Subjects) Section regarding these subjects and government requirements for both local and international students.

Application to Graduate

Graduation is **not automatic** following completion of your course. You must apply online to graduate through WES **before the deadline**. (You do not need to wait for your final semester results – your application will be deferred if you do not meet the requirements to graduate). More information available at: <https://www.monash.edu.my/student-services/student-admin/graduations>