

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

Feb 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

Core units

CHE4161	Engineer in society
ENG4702	Final year project B
CHE4173	Sustainable processing 2
CHE4162	Particle technology

2) Semester 2 2022 units

Core units

CHE3162	Process control
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

ENG4701	Final year project A
CIV4280	Bridge design and assessment
CIV4286	Project management for civil engineers

Select 1 elective

CIV4234	Advanced structural analysis
CIV4261	Integrated urban water management

Civil Engineering (continue)

2) Semester 2 2022 units

ENG4702	Final year project B
CIV4212	Civil and environmental engineering practice
CIV4288	Water treatment

Select 1 elective

CIV4249	Foundation engineering
CIV4283	Transport planning

Electrical and Computer Systems Engineering

1) Semester 1 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>
ECE4099	Professional practice
ECE3051	Electrical energy systems

Plus select one of the following electives *

ECE4075	Real time embedded systems
ECE4032	Advanced control
ECE4179	Neural networks and deep learning
ECE4076	Computer vision
TRC3500	Sensors and artificial perception

2) Semester 2 2022 units

Core units:

ENG4702	Project B
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Plus select 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

Core units

ENG4701	Final year project A
MEC4404	Professional practice
MEC4408	Thermodynamics and Heat transfer*

Select 1 elective below

MEC4417	Refrigeration and air conditioning
MEC4801	Non-destructive testing and inspection
MEC4802	Sustainable engineering and design with nanomaterials
MEC4803	Internal combustion engines
MEC5885	Energy efficiency and sustainability engineering**

* to select 2 electives if MEC4408 already done in Level 3

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

2) Semester 2 2022 units

Core units

ENG4702	Final year project B
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

Core units

ENG4701	Final year project A
ECE4099	Professional practice
ECE4076	Computer vision
ECE4179	Neural networks and deep learning

You can choose from the following electives (if you still have empty slots)*

TRC4200	Engineering Cyber Physical Systems
ECE4032	Advanced control

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

2) Semester 2 2022 units

Core units

ENG4702	Final year project B
TRC4800	Robotics
ECE4078	Intelligent Robotics

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
TRC4902	Mechatronics and manufacturing

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

Core units

ENG4701	Final year project A
ECE4099	Professional practice
TRC4200	Engineering Cyber Physical Systems

You can choose from the following electives (if you still have empty slots)*

ECE4032	Advanced control
ECE4076	Computer vision
ECE4179	Neural networks and deep learning

4) Semester 2 2022 units

Core units

ENG4702	Final year project B
TRC4800	Robotics
TRC4902	Mechatronics and manufacturing

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 any 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 student)

FIT4165	Computer networks
FIT4002	Software engineering studio project

Select 2 out of 3 electives

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

2) Semester 2 2022 units

Core units (Non-IBL student)

FIT4003	Software engineering research project*
FIT4002	Software engineering studio project

Select 1 out of 6 electives

FIT4009	Advanced topics in intelligent systems (Level 4 Technical Elective)**
FIT3080	Intelligent System
FIT3143	Parallel Computing
FIT3175	Usability
FIT3179	Data Visualization
FIT3183	Malicious AI and dark side security

3) Semester 1 2022 units

Core units (For IBL students)

FIT4165	Computer networks
FIT3170	Software engineering practices

Select 2 out of 4 electives

FIT3031	Information and network security
FIT3081	Image processing
FIT3152	Data analytics
FIT5202	Data processing for big data processing (Level 4 and above Technical Elective) **

4) Semester 2 2022 units

Core units (For IBL students)

FIT4003	Software engineering research project*
FIT3170	Software engineering practices

Select 1 out of 5 electives

FIT4009	Advanced topics in intelligent systems (Level 4 Technical Elective)**
FIT3080	Intelligent System
FIT3143	Parallel Computing

FIT3175	Usability
FIT3179	Data Visualization

* 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)

** students are required to enroll for at least ONE (1) SE Technical Elective at level 4 or above, as part of the graduation requirement

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 General Studies** 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 the General Studies Office regarding these units 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>