

Electrical and Computer Systems Engineering Re-enrolment Guide 2027

(Prepared by Course Director, Associate Professor Ir Dr Joanne Lim &
Course Director, Common Engineering, Dr Khong Wei Leong - Version 1.9.2026)

- Students are required to [re-enrol for both Semester 1 and Semester 2](#) via [WES](#) (except for final semester students)
- All students MUST complete the [Malaysia General Studies](#) and [Industrial Training](#) before course completion
- Official Faculty of Engineering Course Maps, Elective and Minor website [link](#) (follow your commencing year intake)
- If you encounter issues with enrolment, please submit [SORS enrolment form](#)

Intake: Commencing July and Oct 2026

Units to be enrolled for Second Semester of Year 1 - Semester 1 2027

Semester 1 2027 units

Students who have completed ENG1090 combination in previous semester:

ENG1012	Engineering for People and Planet
ENG1014	Engineering Numerical Analysis
ENG1005	Engineering Mathematics
Choose ONE technical elective from below:	
- PHS1002 Physics for engineering - CHM1051 Chemistry 1 advanced (recommended for Chemical Engineering) - MEC2811 Manufacturing Processes - ENG1813 Next-Gen uncrewed vehicle - FIT1045 Introduction to programming - CHE2167 Process material selection - CHE2871 Biochemistry for engineers - BIO1011 Blueprints for life (Compulsory elective for Biomedical Engineering)	
Software Engineering students are recommended to complete FIT1045 as a breadth study unit.	

Students who have completed ENG1005 in previous semester:

ENG1012	Engineering for People and Planet
ENG1014	Engineering Numerical Analysis
Choose TWO technical electives from below:	
- PHS1002 Physics for engineering - CHM1051 Chemistry 1 advanced (recommended for Chemical Engineering) - MEC2811 Manufacturing Processes - ENG1813 Next-Gen uncrewed vehicle - FIT1045 Introduction to programming - CHE2167 Process material selection - CHE2871 Biochemistry for engineers - BIO1011 Blueprints for life (Compulsory elective for Biomedical Engineering)	
Software Engineering students are recommended to complete FIT1045 as a breadth study unit.	

Units to be enrolled for First Semester of Year 2 in Semester 2 2027

Semester 2 2027 units

Electrical and Computer Systems Engineering

ECE2191	Probability models in engineering
ECE2111	Signals and systems
ECE2072	Digital systems

Elective

TRC2001	Introduction to systems engineering
ECW1102	Introductory macroeconomics
BTW1042	Malaysian business law

*IMPORTANT NOTE - End of Semester 1 2027

- Kindly ensure that your specialisation ('Area of Study') in WES is the **same as** your offer letter and international student pass.
- When the Semester 1 2027 exam results are released, kindly check that you have met the *prerequisites* of these Year 2 units. If you do not meet the pre / co-requisites, then the unit enrolled will become **INVALID**.
- Students who could **NOT PASS ALL CORE Year 1 UNITS**, MUST seek enrolment advice from the Course Director, Common Engineering (Dr Khong Wei Leong, khong.weileong@monash.edu)
- ECE2191 has ENG2005 as a corequisite. Please enrol in ENG2005 if you have not taken this unit previously.

Intake: Commencing February 2026

Electrical and Computer Systems Engineering

Semester 1 2027 units

ECE2071	Computer organisation and programming
ECE2131	Electrical circuits
ENG2005	Advanced engineering mathematics
ECE3141	Information and Networks *

Plus select one of the following elective

ECW1102	Introductory macroeconomics
BTW1042	Malaysian business law
ECE3811	Reinforcement Learning for Engineers

Semester 2 2027 units

ECE2111	Signals and systems
ECE2191	Probability models in engineering
ECE3121	Engineering electromagnetics **
ECE2072	Digital Systems ***

* if ECE3141 was taken in sem 1

** If you fulfill the prerequisites, this unit can also be taken in year 3 if you prefer to take other elective

*** if the unit was not taken in level 1

Plus Elective

TRC2001	Introduction to systems engineering
ECE4810	Internet of Things: communication, data and security ****

Intake: Commencing July and Oct 2025

Electrical and Computer Systems Engineering

Semester 1 2027 units

ENG2005	Advanced engineering mathematics
ECE2131	Electrical circuits
ECE2071	Computer organisation and programming
ECE3141	Information and networks*

*This unit can also be taken in year 3. Only select this unit if you have no other electives to choose

Electives

ECW1102	Introductory macroeconomics
BTW1042	Malaysian business law
ECE4831	Microsystem packaging, assembly and testing
ECE3811	Reinforcement Learning for Engineers

Semester 2 2027 units

ECE3121	Engineering electromagnetics
ECE4132	Control system design
ECE3161	Analogue Electronics

Plus select two of the following electives

ECE4810	Internet of Things: communication, data and security
ECE4809	Solid state lighting
ECE4808	Microsystems and semiconductor fabrication

Intake: Commencing February 2025

Electrical and Computer Systems Engineering

Semester 1 2027 units

ECE3073	Computer systems
ECE3141	Information and networks
ECE3051	Electrical Energy Systems

Plus select two of the following electives *

ECE4076	Computer vision
TRC3500	Sensors and artificial perception
ECE4063	Large Scale Digital Design
ECE4831	Microsystem packaging, assembly and testing
ECE3811	Reinforcement Learning for Engineers

Semester 2 2027 units

ECE4132	Control system design
ECE3161	Analogue Electronics
ECE3121	Engineering Electromagnetics

Plus select one of the following electives

ECE4810	Internet of Things: communication, data and security
ECE4809	Solid state lighting
ECE4808	Microsystems and semiconductor fabrication
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>
ECE4078	Intelligent robotics
ECE4886	Smart Grids
ECE4179	Neural networks and deep learning*
ECE4813	Arm based system-on-chip design

*there might be a change in unit code to ECE3192 - Fundamentals of deep learning

Semester Summer Semester A - SSA-02

ENG0002	Industrial Training
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Students who have completed 120 credit points in their engineering studies and have not yet enrolled in ENG0002 are required to enrol in ENG0002 Industrial Training for the SSA-02 semester.

Intake: Commencing July and Oct 2024

Electrical and Computer Systems Engineering

Semester 1 2027 units

Core units

ECE3073	Computer systems
ECE3141	Information and networks
ECE3051	Electrical energy systems

Select one of the following electives

ECE4076	Computer vision
ECE4063	Large Scale Digital Design
TRC3500	Sensors and artificial perceptions
ECE4831	Microsystem packaging, assembly and testing
ECE3811	Reinforcement Learning for Engineers

Semester 2 2027 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
ECE3161	Analog electronics

Plus select one of the following electives

ECE4810	Internet of Things: communication, data and security
ECE4078	Intelligent Robotics
ECE4808	Microsystems and semiconductor fabrication
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>
ECE4886	Smart Grids
ECE4179	Neural networks and deep learning*
ECE4813	Arm based system-on-chip design

*there might be a change in unit code to ECE3192 - Fundamentals of deep learning

Semester Summer Semester A - SSA-02

ENG0002	Industrial Training
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Students who have completed 120 credit points in their engineering studies and have not yet enrolled in ENG0002 are required to enrol in ENG0002 Industrial Training for the SSA-02 semester.

Intake: Commencing February 2024

Electrical and Computer Systems Engineering

Semester 1 2027 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>
ENG4801	Professional Practice (Curriculum embedded)

Plus select one of the following electives

ECE4076	Computer vision
ECE4063	Large Scale Digital Design
TRC3500	Sensors and artificial perception
ECE4831	Microsystem packaging, assembly and testing
ECE3811	Reinforcement Learning for Engineers

Semester 2 2027 units

Core units:

ENG4702	Project B
ECE4191	Engineering Integrated Design

Plus select two of the following electives

ECE4810	Internet of Things: communication, data and security
ECE4078	Intelligent Robotics
ECE4808	Microsystems and semiconductor fabrication
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>
ECE4886	Smart Grids
ECE4179	Neural networks and deep learning*
ECE4813	Arm based system-on-chip design

*there might be a change in unit code to ECE3192 - Fundamentals of deep learning

Semester Summer Semester A - SSA-02

ENG0002	Industrial Training
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Students who have completed 120 credit points in their engineering studies and have not yet enrolled in ENG0002 are required to enrol in ENG0002 Industrial Training for the SSA-02 semester.

Intake: Commencing July and Oct 2023

Electrical and Computer Systems Engineering

Semester 1 2027 units

Core units

ENG4702	Project B
ENG4801	Professional Practice (Curriculum embedded)

Plus select one of the following electives

ECE4076	Computer Vision
ECE4063	Large Scale Digital Design
TRC3500	Sensors and Artificial Perception
ECE4831	Microsystem packaging, assembly and testing
ECE3811	Reinforcement Learning for Engineers