

Course progression map for 2027 commencing students

This progression map provides advice on the optimal sequencing of units and guidance on planning unit enrolment for each semester of study in conjunction with the required units outlined in the course 'Requirements' section of the [Handbook](#). Please note that the map may be updated to reflect changes to course requirements. Be sure to review it for the latest information before re-enrolling. Last update: 1 October 2026

E6013 Master of Applied Engineering

Specialisation – Colloids and polymer technology

Commencing in the February intake

YEAR 1 Semester 1	CHE5834 Polymer and synthetic chemistry	CHE5835 Rubber science and latex technology	Specified elective	ENG5813 Industry-based project A
YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	CHE5836 Colloids and interfaces	CHE5837 Nanotechnology and advanced characterisations	ENG5814 Industry-based project B

Commencing in the July intake

YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	CHE5836 Colloids and interfaces	CHE5837 Nanotechnology and advanced characterisations	ENG5813 Industry-based project A
YEAR 1 Semester 1	CHE5834 Polymer and synthetic chemistry	CHE5835 Rubber science and latex technology	Specified elective	ENG5814 Industry-based project B

 Part A. Specialist studies

 Part B. Professional practice

Specified elective - complete one unit from the following:

[CHE5806](#) Low-carbon technology (Teaching period: Semester 1)

[ECE5701](#) Engineering IoT network systems (Teaching period: Semester 1)

[ENG5805](#) Statistical data processing and operations research (Teaching period: Semester 1)

[MEC5801](#) Industrial ecology (Teaching period: Semester 1)

[TRC5801](#) Data driven supply chain optimisation and AI applications (Teaching period: Semester 1)

[CHE5807](#) Carbon footprint and energy management (Teaching period: Semester 2)

[MEC5156](#) Advanced robotics in manufacturing (Teaching period: Semester 2)

[MEC5897](#) Lean manufacturing (Teaching period: Semester 2)

Note: In the standard course progression, you take your specified elective in Semester 1.

Semester 2 specified elective units are available if you're studying part-time or your course duration is extended.

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E6013 Master of Applied Engineering Specialisation – Decarbonisation and net zero

Commencing in the February intake

YEAR 1 Semester 1	CHE5806 Low-carbon technology	CHE5833 Carbon capture, storage and utilisation	Specified elective	ENG5813 Industry-based project A
YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	CHE5807 Carbon footprint and energy management	CHE5805 Waste management and biomass transformation	ENG5814 Industry-based project B

Commencing in the July intake

YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	CHE5807 Carbon footprint and energy management	CHE5805 Waste management and biomass transformation	ENG5813 Industry-based project A
YEAR 1 Semester 1	CHE5806 Low-carbon technology	CHE5833 Carbon capture, storage and utilisation	Specified elective	ENG5814 Industry-based project B

 Part A. Specialist studies

 Part B. Professional practice

Specified elective - complete one unit from the following:

[MEC5801](#) Industrial ecology (Teaching period: Semester 1)

[MEC5897](#) Lean manufacturing (Teaching period: Semester 2)

Note: In the standard course progression, you take your specified elective in Semester 1. Semester 2 specified elective units are available if you're studying part-time or your course duration is extended.

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E6013 Master of Applied Engineering

Specialisation – Industrial AI and robotics engineering

Commencing in the February intake

YEAR 1 Semester 1	TRC5801 Data driven supply chain optimisation and AI applications	MEC5891 Design for additive manufacturing	Specified elective	ENG5813 Industry-based project A
YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	MEC5897 Lean manufacturing	MEC5156 Advanced robotics in manufacturing	ENG5814 Industry-based project B

Commencing in the July intake

YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	MEC5897 Lean manufacturing	MEC5156 Advanced robotics in manufacturing	ENG5813 Industry-based project A
YEAR 1 Semester 1	TRC5801 Data driven supply chain optimisation and AI applications	MEC5891 Design for additive manufacturing	Specified elective	ENG5814 Industry-based project B

 Part A. Specialist studies

 Part B. Professional practice

Specified elective - complete one unit from the following:

[ECE5701](#) Engineering IoT network systems (Teaching period: Semester 1)

[ENG5805](#) Statistical data processing and operations research (Teaching period: Semester 1)

[ECE5704](#) Smart sensors and embedded systems (Teaching period: Semester 2)

Note: In the standard course progression, you take your specified elective in Semester 1.

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E6013 Master of Applied Engineering Specialisation – IoT systems and technologies

Commencing in the February intake

YEAR 1 Semester 1	ECE5701 Engineering IoT network systems	ECE5702 Machine-to-machine storage and communication	Specified elective	ENG5813 Industry-based project A
YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	ECE5703 Communication network protocols for industrial IoT	ECE5704 Smart sensors and embedded systems	ENG5814 Industry-based project B

Commencing in the July intake

YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	ECE5703 Communication network protocols for industrial IoT	ECE5704 Smart sensors and embedded systems	ENG5813 Industry-based project A
YEAR 1 Semester 1	ECE5701 Engineering IoT network systems	ECE5702 Machine-to-machine storage and communication	Specified elective	ENG5814 Industry-based project B

 Part A. Specialist studies

 Part B. Professional practice

Specified elective - complete one unit from the following:

[ENG5805](#) Statistical data processing and operations research (Teaching period: Semester 1)

[MEC5156](#) Advanced robotics in manufacturing (Teaching period: Semester 2)

Note: In the standard course progression, you take your specified elective in Semester 1.

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E6013 Master of Applied Engineering

Specialisation – Semiconductor and microsystems engineering

Commencing in the February intake

YEAR 1 Semester 1	ECE5830 Advanced semiconductor devices	ECE5063 Integrated circuit design	ECE5831 Microsystem packaging, assembly and testing	ENG5813 Industry-based project A
YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	ECE5838 Microsystems and semiconductor fabrication	Specified elective	ENG5814 Industry-based project B

Commencing in the July intake

YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	ECE5838 Microsystems and semiconductor fabrication	Specified elective	ENG5813 Industry-based project A
YEAR 1 Semester 1	ECE5830 Advanced semiconductor devices	ECE5063 Integrated circuit design	ECE5831 Microsystem packaging, assembly and testing	ENG5814 Industry-based project B

 Part A. Specialist studies

 Part B. Professional practice

Specified elective - complete one unit from the following:

[TRC5801](#) Data-driven supply chain optimisation and AI applications (Teaching period: Semester 1)

[ECE5704](#) Smart sensors and embedded systems (Teaching period: Semester 2)

Note: In the standard course progression, you take your specified elective in Semester 1.

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E6013 Master of Applied Engineering Specialisation – Smart and sustainable mobility

Commencing in the February intake

YEAR 1 Semester 1	CIV5100 Autonomous vehicle system	CIV5314 Planning urban mobility futures	Specified elective	ENG5813 Industry-based project A
YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	CIV5802 Smart urban mobility and digital twins	CIV5803 Electric mobility	ENG5814 Industry-based project B

Commencing in the July intake

YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	CIV5802 Smart urban mobility and digital twins	CIV5803 Electric mobility	ENG5813 Industry-based project A
YEAR 1 Semester 1	CIV5100 Autonomous vehicle system	CIV5314 Planning urban mobility futures	Specified elective	ENG5814 Industry-based project B

 Part A. Specialist studies

 Part B. Professional practice

Specified elective - complete one unit from the following:

- [ENG5805](#) Statistical data processing and operations research (Teaching period: Semester 1)
- [TRC5801](#) Data-driven supply chain optimisation and AI applications (Teaching period: Semester 1)
- [MEC5806](#) Energy management and audit (Teaching period: Semester 2)

Note: In the standard course progression, you take your specified elective in Semester 1.
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E6013 Master of Applied Engineering

Specialisation – Sustainable energy engineering

Commencing in the February intake

YEAR 1 Semester 1	MEC5801 Industrial ecology	MEC5885 Energy efficiency and sustainability engineering	Specified elective	ENG5813 Industry-based project A
YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	MEC5886 Sustainable energy technologies	MEC5806 Energy management and audit	ENG5814 Industry-based project B

Commencing in the July intake

YEAR 1 Semester 2	TRC5901 Artificial intelligence applications in engineering	MEC5886 Sustainable energy technologies	MEC5806 Energy management and audit	ENG5813 Industry-based project A
YEAR 1 Semester 1	MEC5801 Industrial ecology	MEC5885 Energy efficiency and sustainability engineering	Specified elective	ENG5814 Industry-based project B

 Part A. Specialist studies

 Part B. Professional practice

Specified elective - complete one unit from the following:

[CHE5806](#) Low-carbon technology (Teaching period: Semester 1)

[CHE5833](#) Carbon capture, storage and utilisation (Teaching period: Semester 1)

[CIV5803](#) Electric mobility (Teaching period: Semester 2)

[CHE5805](#) Waste management and biomass transformation (Teaching period: Semester 2)

Note: In the standard course progression, you take your specified elective in Semester 1.

Semester 2 specified elective units are available if you're studying part-time or your course duration is extended.