



Course progression map for 2025 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 updated: 8 December 2024*

E3001 Bachelor of Engineering (Honours)

Common First Year

You do not have VCE Units 3 & 4 Specialist Maths >30 study score and VCE Units 3 & 4 Physics >25 study score: You must enrol in Foundation mathematics (ENG1090) and Foundation physics (PHS1001)

1	Sem 1 Feb	ENG1012 Engineering design	ENG1090 Foundation mathematics	PHS1001 Foundation physics * <i>Corequisite: ENG1090 *</i>	First Year engineering breadth study+
	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics <i>Required: ENG1090 *</i>	ENG1014 Engineering numerical analysis	ENG1013 Engineering smart systems

You do not have VCE Units 3 & 4 Specialist Maths >30 study score: You must enrol in Foundation mathematics (ENG1090)

1	Sem 1 Feb	ENG1011 Engineering methods	ENG1090 Foundation mathematics *	Elective	First Year engineering breadth study+ <i>Or swap semester with the Elective unit</i>
	Sem 2 July	ENG1012 Engineering design	ENG1013 Engineering smart systems	ENG1005 Engineering mathematics <i>Required: ENG1090 *</i>	ENG1014 Engineering numerical analysis

You do not have VCE Units 3 & 4 Physics >25 study score: You must enrol in Foundation physics (PHS1001)

1	Sem 1 Feb	ENG1005 Engineering mathematics <i>Required: ENG1090 *</i>	ENG1013 Engineering smart systems	PHS1001 Foundation physics * <i>Required: ENG1090 *</i>	First Year engineering breadth study+ <i>Or swap semester with the Elective unit</i>
	Sem 2 July	ENG1011 Engineering methods	ENG1012 Engineering design	ENG1014 Engineering numerical analysis	Elective

You have completed VCE Units 3 & 4 Physics >25 study score and VCE Units 3 and 4 Specialist Maths >30 study score: No foundation units are required

Year	Period	Units			
1	Sem 1 Feb	ENG1005 Engineering mathematics <i>Required: ENG1090 *</i>	ENG1014 Engineering numerical analysis	Elective	First Year engineering breadth study+ <i>Or swap semester with an Elective unit</i>
	Sem 2 July	ENG1011 Engineering methods	ENG1012 Engineering design	ENG1013 Engineering smart systems	Elective

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- **STUDYING IN MALAYSIA:** If you are studying in the Malaysia campus, please consult [your campus website](#) for the Common First Year map.
- * Foundation units: You must enrol in the foundation units ENG1090 and/or PHS1001 if you have not completed the [Australian VCE \(Units 3 & 4\) or equivalent](#) Specialist mathematics and/or Physics with the required study score.
- **+ Biomedical engineering:** If you are Clayton-based and planning to specialise in Biomedical engineering, you must take BMS1021 as a First Year elective in Semester 1.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.

Course progression map for 2025 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 updated: 7 October 2025*

E3001 Bachelor of Engineering (Honours)

Specialisation – Aerospace engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	MMA2001 Design 1 Replacing MEC2402	MMA2002 Solid mechanics 1 Replacing MEC2403	ENG2005 Advanced engineering mathematics	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	MMA2005 Modelling and control Replacing MAE3408	MMA2003 Thermofluids 1 Replacing combined MAE2402, MAE2404	MMA2004 Dynamics 1 Replacing MAE2505	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	MAE3001 Aero and gas dynamics Replacing combined MAE2402, MAE2404	MAE3002 Aerospace dynamics 2 Replacing MAE3404	MAE3401 Aerodynamics 2	Level 3 or 4 aerospace engineering technical elective
	Sem 2 July	MMA3001 Numerical methods and machine learning Replacing MEC3456	MAE3411 Aerospace structural mechanics	MAE3405 Aerospace propulsion	Level 3 or 4 aerospace engineering technical elective
4	Sem 1 Feb	ENG4701 Final year project A	Complete one Professional Practice domain unit	MAE4416 Orbital mechanics and spaceflight dynamics	Level 3, 4 or 5 aerospace engineering technical elective
	Sem 2 July	ENG4702 Final year project B	MMA4001 Finite element analysis Replacing MAE4426	MAE4410 Flight vehicle design	Level 3, 4 or 5 aerospace engineering technical elective

Clayton students enrol in
[ENG0001](#) Continuous Professional Development
(0 credit points)

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- MAE2505** - If you have completed this unit as a First Year breadth study unit, it will count towards your aerospace engineering study. You must still fulfil the First Year engineering breadth study requirement by completing another breadth study unit.
- You are required to complete 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information, refer to the [CPD webpage](#).
- For enrolment advice, please refer to the [Course Advisers webpage](#).



Course progression map for 2025 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 updated: 30 September 2026*

E3001 Bachelor of Engineering (Honours)

Specialisation – Biomedical engineering – *Biomedical devices stream*

Year	Period	Units			
1	Sem 1 Feb	Common First Year			BMS1021 Cells, tissues and organisms
	Sem 2 July				Elective
2	Sem 1 Feb	ENG2005 Advanced engineering mathematics	ECE2071 Systems programming	PHY2011 Neuroscience of communication, sensory and control systems	MCB2011 Molecular biology and the cell
	Sem 2 July	ECE2111 Signals and systems	CHE2161 Mechanics of fluids	PHY2042 Human physiology: Cardiovascular, respiratory and renal systems	MCB2022 The dynamic cell
3	Sem 1 Feb	ECE2131 Electrical circuits	MMA2002 Solid mechanics 1	MTE3204 Biomaterials 1	DEV2011 Early human development from cells to tissues
	Sem 2 July	ECE4179 Neural networks and deep learning From 2027: Replace with ECE3192	ECE4087 Medical technology innovation	MEC3602 Biomedical microsystems	DEV2022 Human anatomy and development: Tissues and body systems
4	Sem 1 Feb	ENG4701 Final year project A	TRC3500 Sensors and artificial perception	Complete one Professional Practice domain unit	Level 3 or 4 biomedical engineering technical elective
	Sem 2 July	ENG4702 Final year project B	ENG4105 Biomedical engineering integrated design	ECE4081 Medical instrumentation	MTE4596 Biomaterials 2

Clayton students enrol in [ENG0001](#) Continuous Professional Development (0 credit points)

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- **BMS1021** – This unit fulfills the First Year breadth study requirement and is compulsory for the biomedical engineering specialisation.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- Engineering minors are not available within the Biomedical engineering specialisation.
- You are required to complete 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information, refer to the [CPD webpage](#).
- For enrolment advice, please refer to the [Course Advisers webpage](#).

Course progression map for 2025 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 updated: 20 March 2025*

E3001 Bachelor of Engineering (Honours)

Specialisation – Chemical engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	ENG2005 Advanced engineering mathematics	CHM1011 Chemistry 1 or CHM1051 Chemistry 1 advanced	CHE2164 Thermodynamics 1	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	CHE2162 Materials and energy balances	CHE2161 Mechanics of fluids	CHE2163 Heat and mass transfer	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	CHE3161 Chemistry and chemical thermodynamics	CHE3165 Separation processes	CHE3167 Transport phenomena and numerical methods	Level 3 or 4 chemical engineering technical elective
	Sem 2 July	CHE3162 Process control	CHE3164 Reaction engineering	CHE3166 Process design	Level 3 or 4 chemical engineering technical elective
4	Sem 1 Feb	ENG4701 Final year project A	CHE4162 Particle technology	Complete one Professional Practice domain unit	Level 3, 4 or 5 chemical engineering technical elective
	Sem 2 July	ENG4702 Final year project B	CHE4170 Design project (12 points)		Level 3, 4 or 5 chemical engineering technical elective

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- **CHM1011, CHM1051, CHE2161** - If you have completed one of the units as a First Year breadth study unit, it will count towards your chemical engineering study. You must still fulfil the First Year engineering breadth study requirement by completing another breadth study unit.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- CHE4170 - You should not overload in the semester when undertaking this unit.
- You are required to complete the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.



Course progression map for 2025 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 updated: 11 October 2024*

E3001 Bachelor of Engineering (Honours)

Specialisation – Civil engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	CIV2206 Structural mechanics	CIV2282 Transport and traffic engineering	CIV2263 Water systems	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	ENG2005 Advanced engineering mathematics	CIV2242 Geomechanics 1	CIV2235 Structural materials	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	Complete one Professional Practice domain unit	CIV3294 Structural design	CIV3285 Engineering hydrology	Level 3 or 4 civil engineering technical elective
	Sem 2 July	CIV3283 Road engineering	CIV3221 Building structures and technology	CIV3247 Geomechanics 2	Level 3 or 4 civil engineering technical elective
4	Sem 1 Feb	ENG4701 Final year project A	CIV4249 Foundation engineering	CIV4280 Bridge design and assessment	Level 3, 4 or 5 civil engineering technical elective
	Sem 2 July	ENG4702 Final year project B	CIV4212 Civil and environmental engineering practice	CIV4288 Water treatment	Level 3, 4 or 5 civil engineering technical elective

Malaysia students enrol in [ENG0002](#)
Industrial training (0 credit points)

Clayton students enrol in [ENG0001](#)
Continuous Professional Development (0 credit points)

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- **Studying civil engineering specialisation in Malaysia:** You must complete ENG1021 to meet Engineering Accreditation Council Malaysia (EAC) requirement for accreditation.
- You are required to complete the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.



Course progression map for 2025 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 updated: 30 September 2026*

E3001 Bachelor of Engineering (Honours)

Specialisation – Electrical and computer systems engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	ECE2071 Systems programming	ECE2131 Electrical circuits	ENG2005 Advanced engineering mathematics	Level 1, 2 or 3 elective or engineering technical elective.
	Sem 2 July	ECE2072 Digital systems	ECE2111 Signals and systems	ECE2191 Probability and AI for engineers	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	ECE3073 Computer systems	ECE3141 Information and networks	ECE3051 Electrical energy systems	Level 3 or 4 ECSE technical elective
	Sem 2 July	ECE4132 Control system design From 2027: Replace with ECE3133	ECE3121 Engineering electromagnetics	ECE3161 Analogue electronics	Level 3 or 4 ECSE technical elective Malaysia students enrol in ENG0002 Industrial training (0 credit points)
4	Sem 1 Feb	ENG4701 Final year project A	Complete one Professional Practice domain unit	Core List A elective	Level 3, 4 or 5 ECSE technical elective Clayton students enrol in ENG0001 Continuous Professional Development (0 credit points)
	Sem 2 July	ENG4702 Final year project B	ECE4191 Engineering integrated design	Core List A or B elective	Level 3, 4 or 5 ECSE technical elective

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- **ECE2072** - If you have completed this unit as a First Year breadth study unit, it will count towards your ECSE study. You must still fulfil the First Year engineering breadth study requirement by completing another breadth study unit.
- **Studying ECSE specialisation in Malaysia:** You must complete ECE4053 to meet Engineering Accreditation Council Malaysia (EAC) requirement for accreditation.
- You are required to complete the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.

Course progression map for 2025 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 updated: 11 October 2024*

E3001 Bachelor of Engineering (Honours)

Specialisation – Environmental engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	ENE2021 Energy and the environment	CHE2164 Thermodynamics 1	CIV2263 Water systems	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	ENE2268 Hydrology and climate change	ENG2005 Advanced engineering mathematics	ENE2503 Material properties and recycling	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	ENE4043 Quantifying sustainability in urban systems	CIV3285 Engineering hydrology	BTX3100 Sustainability regulation for business	Level 3 or 4 environmental engineering technical elective
	Sem 2 July	ENE3606 The air environment	ENE3032 Fate and transport of contaminants	ENE3031 Building sustainability	Level 3 or 4 environmental engineering technical elective
4	Sem 1 Feb	ENG4701 Final year project A	Complete one Professional Practice domain unit	ENE4042 Environment impact and risk assessment	Level 3 or 4 environmental engineering technical elective
	Sem 2 July	ENG4702 Final year project B	CIV4212 Civil and environmental engineering practice	ENE4041 Soil remediation and solid waste management	Level 3 or 4 environmental engineering technical elective

Clayton students enrol in [ENG0001](#) Continuous Professional Development (0 credit points)

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- You are required to complete 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information, refer to the [CPD webpage](#).
- For enrolment advice, please refer to the [Course Advisers webpage](#).

Course progression map for 2025 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 updated: 12 October 2025*

E3001 Bachelor of Engineering (Honours)

Specialisation – Materials engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	MTE2101 Atomic-scale structure of materials	MTE2102 Phase equilibria and phase transformations	MTE2103 Mechanical properties of materials	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	MTE2204 Materials in a complex world 1: People, projects and data	MTE2201 Plastics and the planet: Health, impact and sustainability	ENG2005 Advanced engineering mathematics	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	MTE3103 Materials life cycle	MTE3102 Plasticity of metals and alloys	MTE3104 Electronic and photonic materials	Level 3 or 4 materials engineering technical elective
	Sem 2 July	MTE3202 Magnetic and spintronic materials	MTE3203 Introduction to ceramics: Properties, processing and applications	MTE3201 Materials in a complex world 2: Characterisation, identification and selection	Level 3 or 4 materials engineering technical elective
4	Sem 1 Feb	ENG4701 Final year project A	MTE4102 Advanced materials processing and manufacturing	MTE4101 Integrated design project	Level 3, 4 or 5 materials engineering technical elective
	Sem 2 July	ENG4702 Final year project B	Level 4 or 5 MTE-coded materials engineering core elective	Complete one Professional Practice domain unit	Level 3, 4 or 5 materials engineering technical elective

Clayton students enrol in [ENG0001](#) Continuous Professional Development (0 credit points)

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- You are required to complete 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information, refer to the [CPD webpage](#).
- For enrolment advice, please refer to the [Course Advisers webpage](#).



Course progression map for 2025 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 updated: 7 October 2025*

E3001 Bachelor of Engineering (Honours)

Specialisation – Mechanical engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	MMA2001 Design 1 Replacing MEC2402	MMA2002 Solid mechanics 1 Replacing MEC2403	ENG2005 Advanced engineering mathematics	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	MMA2005 Modelling and control Replacing MEC3457	MMA2003 Thermofluids 1 Replacing combined MEC2404, MEC2405	MMA2004 Dynamics 1 Replacing MEC2401	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	MEC3455 Solid mechanics 2	MEC3451 Fluid mechanics 2	MEC3001 Material properties and selection	Level 3 or 4 mechanical engineering technical elective
	Sem 2 July	MEC3453 Mechanical dynamics 2	MEC3416 Mechanical design 2	MMA3001 Numerical methods and machine learning Replacing MEC3456	Level 3 or 4 mechanical engineering technical elective Malaysia students enrol in ENG0002 Industrial training (0 credit points)
4	Sem 1 Feb	ENG4701 Final year project A	Complete one Professional Practice domain unit	MEC4408 Thermodynamics 2 and heat transfer	Level 3, 4 or 5 mechanical engineering technical elective Clayton students enrol in ENG0001 Continuous Professional Development (0 credit points)
	Sem 2 July	ENG4702 Final year project B	MMA4001 Finite element analysis Replacing MEC4426	MEC4407 Mechanical design 3	Level 3, 4 or 5 mechanical engineering technical elective

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- **MEC2404** - If you have completed this unit as a First Year breadth study unit, it will count towards your mechanical engineering study. You must still fulfil the First Year engineering breadth study requirement by completing another breadth study unit.
- You are required to complete the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.



Course progression map for 2025 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 updated: 30 September 2026*

E3001 Bachelor of Engineering (Honours)

Specialisation – Robotics and mechatronics engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	MMA2001 Design 1 Replacing MEC2402	ECE2131 Electrical circuits	ECE2071 Systems programming	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	ENG2005 Advanced engineering mathematics	MMA2004 Dynamics 1 Replacing TRC2201	ECE2072 Digital systems	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	ECE3073 Computer systems	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	Level 3 or 4 robotics and mechatronics engineering technical elective
	Sem 2 July	MMA2005 Modelling and control Replacing TRC3600	ECE4179 Neural networks and deep learning From 2027: Replace with ECE3192	MMA2003 Thermofluids 1 Replacing TRC4802	Level 3 or 4 robotics and mechatronics engineering technical elective
4	Sem 1 Feb	ENG4701 Final year project A	TRC4800 Robotics	ECE4076 Computer vision	Level 3, 4 or 5 robotics and mechatronics engineering technical elective
	Sem 2 July	ENG4702 Final year project B	Complete one Professional Practice domain unit	TRC4407 Automation design project	Level 3, 4 or 5 robotics and mechatronics engineering technical elective

Malaysia students enrol in [ENG0002](#) Industrial training (0 credit points)

Clayton students enrol in [ENG0001](#) Continuous Professional Development (0 credit points)

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- **ECE2072** - If you have completed this unit as a First Year breadth study unit, it will count towards your robotics and mechatronics engineering study. You must still fulfil the First Year engineering breadth study requirement by completing another breadth study unit.
- **Studying robotics and mechatronics engineering specialisation in Malaysia:** You must complete one of ([ECE3051](#) or [MEC3821](#) or [TRC4902](#)) to meet Engineering Accreditation Council Malaysia (EAC) requirement for accreditation.
- You are required to complete the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.



Course progression map for 2025 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 updated: 25 September 2026*

E3001 Bachelor of Engineering (Honours)

Specialisation – Software engineering

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	MAT1830 Discrete mathematics for computer science	FIT2099 Object-oriented design and implementation	FIT3171 Databases	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	FIT2101 Software engineering process and management	FIT2085 Fundamentals of algorithms for engineers From 2027: Replace with FIT2115	FIT2107 Software quality and testing	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	FIT3159 Computer architecture	FIT3077 Software engineering: Architecture and design	FIT3170 Software engineering practice (12 points)	Level 3 or 4 software engineering technical elective
	Sem 2 July	FIT2100 Operating systems	FIT2004 Algorithms and data structures		Level 3 or 4 software engineering technical elective
4	Sem 1 Feb	FIT4002 Software engineering industry experience studio project (12 points)	FIT4701 Final year software engineering project A	FIT4165 Computer networks	Level 3, 4 or 5 software engineering technical elective
	Sem 2 July		FIT4702 Final year software engineering project B	Level 4 or 5 software engineering core elective	Level 3, 4 or 5 software engineering technical elective

Malaysia students enrol in [ENG0002](#) Industrial training (0 credit points)

Clayton students enrol in [ENG0001](#) Continuous Professional Development (0 credit points)

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- If you completed FIT1058 in 2025, it will be counted in place of MAT1830. Otherwise, you must complete MAT1830.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- FIT2085 - If you have completed this unit as a First Year breadth study unit, it will count towards your software engineering study. You must still fulfil the First Year engineering breadth study requirement by completing another breadth study unit.
- Engineering minors are not available within the Software engineering specialisation.
- Enrolled in the Industry Based Learning placement program – You will have a different progression map, with your placement in Semester 2 of third year. You will need to overload in one semester or complete a summer semester unit.
- You are required to complete the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.



Course progression map for 2025 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 updated: 25 September 2026*

E3001 Bachelor of Engineering (Honours)

Specialisation – Software engineering – *Industry-based Learning*

Year	Period	Units			
1	Sem 1 Feb	Common First Year			
	Sem 2 July				
2	Sem 1 Feb	MAT1830 Discrete mathematics for computer science	FIT2099 Object-oriented design and implementation	FIT3171 Databases	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	FIT2101 Software engineering process and management	FIT2085 Fundamentals of algorithms for engineers From 2027: Replace with FIT2115	FIT2107 Software quality and testing	FIT2100 Operating systems
3	Sem 1 Feb	FIT3159 Computer architecture	FIT3077 Software engineering: Architecture and design	FIT2004 Algorithms and data structures	Level 3 or 4 software engineering technical elective
	Sem 2 July	FIT4042 Industry based learning (18 points)			*See footnote
4	Sem 1 Feb	FIT3170 Software engineering practice (12 points)	FIT4701 Final year software engineering project A	FIT4165 Computer networks	Level 3 or 4 software engineering technical elective
	Sem 2 July		FIT4702 Final year software engineering project B	Level 3 or 4 software engineering technical elective	Level 3, 4 or 5 software engineering technical elective

NOTE:

- It is important that you follow the course map unit sequence, as units are designed to build on prior knowledge. Taking units out of sequence can disrupt your progression and cause delays due to semester offerings and enrolment rules.
- [TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- No more than 60 credit points of level 1 units can be included in the credit total for the engineering course.
- Each unit requires 12 hours of work per week. A full-time study week totals 48 hours. If you are unable to commit 48 hours of study due to external commitments, please speak with a course advisor about options to study less units per semester or take some units in the summer semester.
- Engineering minors are not available within the Software engineering specialisation.
- * Depending on placement location when you undertake FIT4042, you will have to either overload a semester, undertake a summer unit or extend an additional semester in order to complete your course.
- You are required to complete the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.