



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 updated: 3 August 2026 – Pending finalisation (Subject to change)*

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>Recommended: ENG1090 *</i>	First Year engineering breadth study+
	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics <i>Required: ENG1090 *</i>	ENG1014 Engineering numerical analysis <i>Required: ENG1090 *</i>	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 <i>Required: ENG1090 *</i>

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>Recommended: 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 <i>Required: ENG1090 *</i>	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 <i>Required: ENG1090 *</i>	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 BIO1011 as a First Year elective in Semester 1.
- 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.
- No more than 60 credit points at level 1 can be included in the credit total for the engineering course.
- 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 2027 commencing students

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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	MMA2002 Solid mechanics 1	ENG2005 Advanced engineering mathematics	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	MMA2005 Modelling and control	MMA2003 Thermofluids 1	MMA2004 Dynamics 1	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	MAE3001 Aero and gas dynamics	MAE3002 Aerospace dynamics 2	MAE3401 Aerodynamics 2	Engineering minor or level 3 or 4 aerospace engineering technical elective
	Sem 2 July	MMA3001 Numerical methods and machine learning	MAE3411 Aerospace structural mechanics	MAE3405 Aerospace propulsion	Engineering minor or 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	Engineering minor or level 3, 4 or 5 aerospace engineering technical elective
	Sem 2 July	ENG4702 Final year project B	MMA4001 Finite element analysis	MAE4410 Flight vehicle design	Engineering minor or 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.
- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- 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](#).
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- For enrolment advice, please refer to the [Course Advisers webpage](#).

Course progression map for 2027 commencing students

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E3001 Bachelor of Engineering (Honours)

Specialisation – Biomedical engineering

Year	Period	Units				
1	Sem 1 Feb	Common First Year			BIO1011 Blueprints for life *	
	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	ECE3192 Fundamentals of deep learning	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	Complete one Professional Practice domain unit	TRC3500 Sensors and artificial perception	Level 3 or 4 prescribed biomedical engineering technical elective	Clayton students enrol in ENG0001 Continuous Professional Development (0 credit points)
	Sem 2 July	ENG4702 Final year project B	ENG4105 Biomedical engineering integrated design	ECE4081 Medical instrumentation	MTE4596 Biomaterials 2	

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.
- ***BIO1011** – This unit is compulsory for the biomedical engineering specialisation. If you are based at Clayton, you must complete BIO1011 as a First Year breadth unit to fulfil the biomedical engineering specialisation requirement.
- 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](#).
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- For enrolment advice, please refer to the [Course Advisers webpage](#).



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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	Engineering minor or level 3 or 4 chemical engineering technical elective
	Sem 2 July	CHE3162 Process control	CHE3164 Reaction engineering	CHE3166 Process design	Engineering minor or 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	Engineering minor or level 3, 4 or 5 chemical engineering technical elective
	Sem 2 July	ENG4702 Final year project B	CHE4170 Design project (12 points)		Engineering minor or 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.
- [MINORS AND 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.
- 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.
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- 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 2027 commencing students

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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	Engineering minor or level 3 or 4 civil engineering technical elective
	Sem 2 July	CIV3283 Road engineering	CIV3221 Building structures and technology	CIV3247 Geomechanics 2	Engineering minor or 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	Engineering minor or 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	Engineering minor or 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:

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- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- 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 the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- 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 2027 commencing students

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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	Engineering minor or level 3 or 4 ECSE technical elective
	Sem 2 July	ECE3133 Control systems	ECE3121 Engineering electromagnetics	ECE3161 Analogue electronics	Engineering minor or level 3 or 4 ECSE technical elective
4	Sem 1 Feb	ENG4701 Final year project A	Complete one Professional Practice domain unit	Core List A elective	Engineering minor or level 3, 4 or 5 ECSE technical elective
	Sem 2 July	ENG4702 Final year project B	ECE4191 Engineering integrated design	Core List A or B elective	Engineering minor or level 3, 4 or 5 ECSE technical elective

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

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

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- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- 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.
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.



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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	Engineering minor or level 3 or 4 environmental engineering technical elective
	Sem 2 July	ENE3606 The air environment	ENE3032 Fate and transport of contaminants	ENE3031 Building sustainability	Engineering minor or 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	Engineering minor or 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	Engineering minor or level 3 or 4 environmental engineering technical elective

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

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- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- 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](#).
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- For enrolment advice, please refer to the [Course Advisers webpage](#).

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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	ENG2005 Advanced engineering mathematics	MTE2201 Plastics and the planet: Health, impact and sustainability	MTE2204 Materials in a complex world 1: People, projects and data	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	Engineering minor or 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	Engineering minor or 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	Engineering minor or 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	Engineering minor or level 3, 4 or 5 materials engineering technical elective

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

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- [MINORS AND TECHNICAL ELECTIVES LIST](#) is located on the Faculty's current student course information webpage.
- 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](#).
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- For enrolment advice, please refer to the [Course Advisers webpage](#).



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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	MMA2002 Solid mechanics 1	ENG2005 Advanced engineering mathematics	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	MMA2005 Modelling and control	MMA2003 Thermofluids 1	MMA2004 Dynamics 1	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	Engineering minor or 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	Engineering minor or level 3 or 4 mechanical engineering technical elective
4	Sem 1 Feb	ENG4701 Final year project A	Complete one Professional Practice domain unit	MEC4408 Thermodynamics 2 and heat transfer	Engineering minor or level 3, 4 or 5 mechanical engineering technical elective
	Sem 2 July	ENG4702 Final year project B	MMA4001 Finite element analysis	MEC4407 Mechanical design 3	Engineering minor or level 3, 4 or 5 mechanical 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.
- 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 mechanical engineering specialisation in Malaysia:** You must complete MEC3459 to meet the Board of Engineers Malaysia (BEM) 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.
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.



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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	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	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	Engineering minor or level 3 or 4 robotics and mechatronics engineering technical elective
	Sem 2 July	MMA2005 Modelling and control	ECE3192 Fundamentals of deep learning	MMA2003 Thermofluids 1	Engineering minor or level 3 or 4 robotics and mechatronics engineering technical elective
4	Sem 1 Feb	ENG4701 Final year project A	TRC4800 Robotics	ECE4076 Computer vision	Engineering minor or 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	Engineering minor or 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.
- 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.
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.



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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	FIT2094 Databases	FIT2099 Object-oriented design and implementation	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	FIT2101 Software engineering process and management	FIT2100 Operating systems	FIT2115 Data structures and algorithms	Level 1, 2 or 3 elective or engineering technical elective
3	Sem 1 Feb	FIT2107 Software verification and validation	FIT3077 Software engineering: Architecture and design	FIT2173 Software security	Level 3 or 4 software engineering technical elective
	Sem 2 July	FIT2121 System architecture and integration	FIT3184 Cloud computing	FIT3170 Software engineering practice	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	FIT4043 Advanced topics in software engineering	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.
- 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.
- **Industry Based Learning (IBL)** – In Year 2, you may be eligible to apply for the Faculty of Information Technology's IBL placement program. The 18-point placement unit is completed in Semester 2 of Year 3 and replaces FIT4002 and one 6-credit point software engineering technical elective. See next page for the progression map.
- You are required to complete the [Continuous Professional Development](#) (if studying in Australia) or [Industrial training](#) (if studying in Malaysia) in order to graduate.
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- 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 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 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	FIT2173 Software security	Level 1, 2 or 3 elective or engineering technical elective
	Sem 2 July	FIT2101 Software engineering process and management	FIT2115 Data structures and algorithms	FIT2100 Operating systems	FIT2121 System architecture and integration
3	Sem 1 Feb	FIT3077 Software engineering: Architecture and design	FIT2107 Software verification and validation	FIT2094 Databases	Level 3 or 4 software engineering technical elective
	Sem 2 July	FIT4042 Industry based learning (18 points)			*See footnote
4	Sem 1 Feb	FIT4701 Final year software engineering project A	FIT4043 Advanced topics in software engineering	Level 3 or 4 software engineering technical elective	Level 3 or 4 software engineering technical elective
	Sem 2 July	FIT4702 Final year software engineering project B	FIT3170 Software engineering practice	FIT3184 Cloud computing	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.
- 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.
- No more than 60 credit points of level 1 units can be credited to the engineering course.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the [Course Advisers webpage](#) if you are in Clayton.