

This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

# E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Common First Year

	You do not have VCE Units 3 & 4 Specialist Maths >30 study score <u>and</u> VCE Units 3 & 4 Physics >25 study score: You must enrol in Foundation mathematics (ENG1090) <u>and</u> Foundation physics (PHS1001)									
Year	Sem	Units								
1	Sem 1 Feb	ENG1012 Engineering design	ENG1090 Foundation mathematics *	PHS1001 Foundation physics * Corequisite: ENG1090 *	Arts major					
'	Sem 2	ENG1011 Engineering methods	ENG1005 Engineering mathematics	ENG1014 Engineering numerical analysis	Arts major					

- 1. If you are requiring two foundation units, you will need to take the remaining core unit ENG1013 Engineering smart systems in Semester 1 of Year 2 as an overload, and increase the total credit points needed for the double by 6 points. You cannot swap the semesters of any of the units.
- 2. **Software Engineering specialisation**: If you want to complete Software Engineering, you must complete ENG1013 Engineering smart systems in Year 1 (Semester 1) and ENG1011 Engineering methods in Year 2 (Semester 1) as an overload.

You do not have VCE Units 3 & 4 Specialist Maths >30 study score: You must enrol in Foundation mathematics (ENG1090)								
4	Sem 1 Feb	ENG1012 Engineering design	ENG1013 Engineering smart systems	ENG1090 Foundation mathematics *	Arts major			
I	Sem 2	ENG1011 Engineering methods	ENG1005 Engineering mathematics Required: ENG1090 *	ENG1014 Engineering numerical analysis Corequisite: ENG1005	Arts major			
Tip: You can swap the semester of ENG1013 and your semester 2 Arts unit.								

You do not have VCE Units 3 & 4 Physics >25 study score: You must enrol in Foundation physics (PHS1001)									
4	Sem 1 Feb ENG1012 Engineering design ENG1013 Engineering smart systems PHS1001 Foundation physics * Required: ENG1090 *								
1	Sem 2	ENG1011 Engineering methods	ENG1005 Engineering mathematics Required: ENG1090 *	ENG1014 Engineering numerical analysis Corequisite: ENG1005	Arts major				
Tip: You can swap the semester of ENG1013 and your semester 2 Arts unit.									

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									
4	Sem 1 Feb	ENG1011 Engineering methods	ENG1005 Engineering mathematics Required: ENG1090 *	ENG1014 Engineering numerical analysis Corequisite: ENG1005	Arts major				
	Sem 2	ENG1012 Engineering design	ENG1013 Engineering smart systems	First Year engineering breadth study	Arts major				
Tip: You o	Tip: You can swap the semester of your engineering elective and your semester 1 Arts unit.								

#### NOTE

- \* Foundation units: You enrol in the foundation units ENG1090 and/or PHS1001 if you have not completed the <u>Australian VCE (Units 3 & 4) or equivalent</u> Specialist mathematics and/or Physics with the required study score.
- 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 refer to the Course advisers webpage.



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

# E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation - Aerospace engineering

	Bachelor of Aerospace Engir	neering (Honours)	Bachelor of Arts		
Year 1 Semester 1 February		0		Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	MEC2402 Design methods	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	MAE2404 Aerodynamics 1	MAE2402 Thermodynamics and gas dynamics	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	MEC2403 Mechanics of materials	MAE3401 Aerodynamics 2	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	MAE2505 Aerospace dynamics	MAE3405 Aerospace propulsion	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	MEC3456 Engineering computational analysis	MAE3404 Flight vehicle dynamics	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	MAE3411 Aerospace structural mechanics	MAE3408 Aerospace control	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	ENG4701 Final year project A	Complete one Professional Practice domain unit	MAE4416 Orbital mechanics and spaceflight dynamics	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	MAE4410 Flight vehicle design	MAE4426 Finite element analysis and composite structures	Arts Professional Futures unit 4	

- · \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- MAE2505 If you have completed MAE2505 as a First Year technical elective, you must replace the core with another unit from the aerospace engineering technical
  electives list or from one of the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- · Engineering minors are not available in the Engineering double degree courses.
- You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- · For enrolment advice, please refer to the Course advisers webpage



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

## E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation - Chemical engineering

	Bachelor of Chemical Eng	ineering (Honours)	Bachelor of Arts		
Year 1 Semester 1 February		0		Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	CHM1011 Chemistry 1 or CHM1051 Chemistry 1 advanced	ENG2005 Advanced engineering mathematics	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	CHE2162 Material and energy balances	CHE2161 Mechanics of fluids	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	CHE2164 Thermodynamics 1	CHE3167 Transport phenomena and numerical methods	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	CHE2163 Heat and mass transfer	CHE3162 Process control	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	CHE3161 Chemistry and chemical thermodynamics	CHE3165 Separation processes	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	CHE3166 Process design	CHE3164 Reaction engineering	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	ENG4701 Final year project A	CHE4162 Particle technology	Complete one Professional Practice domain unit	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	CHE4170 Design project (	112 points)	Art Professional Futures unit 4	

- · \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- CHM1011 or CHM1051 If you have completed either unit as a First Year technical elective, you must replace the core with another unit from the chemical engineering technical electives list or from one of the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- CHE4164 and CHE4165 are integrated industrial project units for select students only. The units are undertaken in place of the final year project units ENG4701 and ENG4702. Depending on placement location, you may have to overload a semester or extend an additional semester in order to complete your course.
- · CHE4170 You should not overload in the semester when undertaking this unit.
- · Engineering minors are not available in the Engineering double degree courses.
- You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- · For enrolment advice, please refer to the Course advisers webpage



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

# E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation - Civil engineering

	Bachelor of Civil Engineer	ing (Honours)	Bachelor of Arts		]
Year 1 Semester 1 February		Common First Year		Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	CIV2282 Transport and traffic engineering	CIV2206 Structural mechanics	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	CIV2235 Structural materials	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	CIV2263 Water systems	CIV3294 Structural design	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	CIV2242 Geomechanics 1	CIV3283 Road engineering	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	Complete one Professional Practice domain unit	CIV3285 Engineering hydrology	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	CIV3247 Geomechanics 2	CIV3221 Building structures and technology	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	ENG4701 Final year project A	CIV4249 Foundation engineering	CIV4280 Bridge design and assessment	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	CIV4212 Civil and environmental engineering practice	CIV4288 Water treatment	Arts Professional Futures unit 4	

- \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- · Engineering minors are not available in the Engineering double degree courses.
- · You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- · For enrolment advice, please refer to the Course advisers webpage



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

## E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation - Electrical and computer systems engineering

	Bachelor of Electrical and Engineering (Honours)	Computer Systems	Bachelor of Arts		
Year 1 Semester 1 February	,	Common First Visco		Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	ECE2072 Digital systems	ECE2191 Probability and AI for engineers	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	ECE2131 Electrical circuits	ECE3073 Computer systems	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	ECE3161 Analogue electronics	ECE3141 Information and networks	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	ECE4132 Control system design	Level 4 or 5 ECE-coded core elective	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	ENG4701 Final year project A	ECE3051 Electrical energy systems	Level 4 or 5 ECE-coded core elective	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	ECE4191 Engineering integrated design	Complete one Professional Practice domain unit	Arts Professional Futures unit 4	

- · \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- ECE2072 If you have completed the unit as a First Year technical elective, you must replace the core with another unit from the electrical and computer systems engineering technical electives list or from one of the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- · Engineering minors are not available in the Engineering double degree courses.
- · You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- · For enrolment advice, please refer to the Course advisers webpage.



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

# E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation - Environmental engineering

	Bachelor of Environmenta	I Engineering (Honours)	Bachelor of Arts		]
Year 1 Semester 1 February		Common First Year		Arts major unit 1*	
Year 1 Semester 1 February		Common First Year		Arts major unit 2*	
Year 1 Semester 2 July	BTX3100 Sustainability regulation for business	ENE2021 Energy and the environment	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	CHE2162 Material and energy balances	Arts elective 2	Arts major unit 4*	
Year 2 Semester 2 July	CHE2164 Thermodynamics 1	CIV2263 Water systems	Arts elective 3	Arts major unit 5*	
Year 3 Semester 1 February	ENE3031 Building sustainability	ENE2503 Materials properties and recycling	Arts elective 4	Arts major unit 6*	
Year 3 Semester 2 July	CIV3248 Groundwater and environmental geomechanics	CIV3285 Engineering hydrology	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 1 February	ENE3032 Fate and transport of contaminants	ENE3606 The air environment	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 4 Semester 2 July	ENG4701 Final year project A	ENE4042 Environment impact and risk assessment	Complete one Professional Practice domain unit	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 1 February	ENG4702 Final year project B	ENE4041 Soil remediation and solid waste management	CIV4212 Civil and environmental engineering practice	Arts Professional Futures unit 4	

- · \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence
- · Engineering minors are not available in the Engineering double degree courses.
- · You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- · For enrolment advice, please refer to the Course advisers webpage.



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

## E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation - Materials engineering

	Bachelor of Materials Eng	ineering (Honours)	Bachelor of Arts		]
Year 1 Semester 1 February				Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	MTE2101 Atomic-scale structure of materials	MTE2103 Mechanical properties of materials	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	MTE2201 Polymers	ENG2005 Advanced engineering mathematics	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	MTE2102 Phase equilibria and phase transformations	MTE3103 Materials life cycle	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	MTE2202 Functional materials 1	MTE3203 Introduction to ceramics: Properties, processing and applications	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	MTE3102 Plasticity of metals and alloys	MTE3101 Materials in a complex world 1: People, projects and data	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	MTE3202 Functional materials 2	MTE3201 Materials in a complex world 2: Characterisation, identification and selection	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	ENG4701 Final year project A	MTE4101 Integrated design project	MTE4102 Advanced materials processing and manufacturing	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	Complete one Professional Practice domain unit	Level 4 or 5 MTE-coded materials engineering technical elective	Arts Professional Futures unit 4	

- · \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- · Engineering minors are not available in the Engineering double degree courses.
- You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- For enrolment advice, please refer to the Course advisers webpage



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

## E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation - Mechanical engineering

	Bachelor of Mechanical E	ngineering (Honours)	Bachelor of Arts		]
Year 1 Semester 1 February		•		Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	MEC2403 Mechanics of materials	MEC2401 Dynamics 1	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	MEC2404 Mechanics of fluids	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	MEC2402 Design methods	MEC3456 Engineering computational mechanics	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	MEC2405 Thermodynamics	MEC3457 Systems and control	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	MEC3455 Solid mechanics	MEC3451 Fluid mechanics 2	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	MEC3416 Machine design	MEC3453 Dynamics 2	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	ENG4701 Final year project A	MEC4408 Thermodynamics and heat transfer	Complete one Professional Practice domain unit	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	MEC4426 Computer- aided design	MEC4407 Design project	Arts Professional Futures unit 4	

- \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- MEC2404 If you have completed MEC2404 as a First Year technical elective, you must replace the core with another unit from the mechanical engineering technical electives list or from one of the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- · Engineering minors are not available in the Engineering double degree courses.
- · You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- For enrolment advice, please refer to the Course advisers webpage



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

# E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation – Robotics and Mechatronics engineering - Artificial intelligence stream

	Bachelor of Robotics and (Honours)	Mechatronics Engineering	Bachelor of Arts		
Year 1 Semester 1 February	(1000000)	0 5-17-	,	Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	ECE2071 Computer organisation and programming	ECE2131 Electrical circuits	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	TRC2201 Mechanics	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	MEC2402 Design methods	TRC3200 Dynamical systems	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	ECE2072 Digital systems	ECE4179 Neural networks and deep learning	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	TRC3500 Sensors and artificial perception	ECE3161 Analogue electronics	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	TRC3600 Feedback control systems	ECE4078 Intelligent robotics	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	ECE4076 Computer vision	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	ECE4191 Engineering integrated design	Complete one Professional Practice domain unit	Arts Professional Futures unit 4	

- · \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- ECE2072 If you have completed the unit as a First Year technical elective, you must replace the core with another unit from the robotics and mechatronics engineering technical electives list or from one of the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- $\cdot\;$  Engineering minors are not available in the Engineering double degree courses.
- · You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the <a href="https://creativecommons.org/cpd/">CPD webpage</a>.
- 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 refer to the Course advisers webpage



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

### E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation – Robotics and Mechatronics engineering – *Automation stream*

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Arts		
Year 1 Semester 1 February	(1.01.04.0)			Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	ECE2071 Computer organisation and programming	ECE2131 Electrical circuits	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	TRC2201 Mechanics	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	MEC2402 Design methods	TRC3200 Dynamical systems	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	ECE2072 Digital systems	TRC4802 Thermo-fluids and power systems	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	TRC3500 Sensors and artificial perception	ECE3161 Analogue electronics	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	TRC3600 Feedback control systems	TRC4902 Mechatronics and manufacturing	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	TRC4200 Engineering cyber-physical systems	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	TRC4407 Automation design project	Complete one Professional Practice domain unit	Arts Professional Futures unit 4	

- \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- ECE2072 If you have completed the unit as a First Year technical elective, you must replace the core with another unit from the robotics and mechatronics engineering technical electives list or from one of the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- · The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- Engineering minors are not available in the Engineering double degree courses.
- You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- · For enrolment advice, please refer to the Course advisers webpage.



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook. Updated 17 March 2024

### E3002 Bachelor of Engineering (Honours) and Bachelor of Arts Specialisation - Software engineering

	Bachelor of Software Engineering (Honours)  Bachelor of Arts			]	
Year 1 Semester 1 February		9 5 11		Arts major unit 1*	
Year 1 Semester 2 July		Common First Year		Arts major unit 2*	
Year 2 Semester 1 February	MAT1830 Discrete mathematics for computer science	FIT2085 Introduction to computer science	Arts elective 1	Arts major unit 3*	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	FIT2004 Algorithms and data structures	FIT2101 Software engineering process and management	Arts elective 2	Arts major unit 4*	
Year 3 Semester 1 February	FIT2099 Object oriented design and implementation	FIT3159 Computer architecture	Arts elective 3	Arts major unit 5*	
Year 3 Semester 2 July	FIT2107 Software quality and testing	FIT2100 Operating systems	Arts elective 4	Arts major unit 6*	
Year 4 Semester 1 February	FIT3170 Software engineering practice (12 points)	FIT3077 Software engineering: architecture and design	Arts Professional Futures unit 1	Arts major unit 7*	
Year 4 Semester 2 July	( - (	FIT3171 Databases	Arts Professional Futures unit 2 ATS2992 Global immersion guarantee program (12 cp) or ATS3173 Workplace innovation project (6 cp)	Arts Professional Futures unit 3	
Year 5 Semester 1 February	FIT4002 Software engineering industry experience studio project (12 points)	FIT4701 Final year project A	FIT4165 Computer networks	Arts major unit 8*	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July		FIT4702 Final year project B	Level 4 or 5 software engineering core elective	Arts Professional Futures unit 4	Arts Professional Futures

- \* \*ARTS MAJORS AVAILABLE IN THE ENGINEERING/ARTS DOUBLE DEGREE: Chinese studies, European languages (Extended major available), Indonesian studies, International relations, Japanese studies, Korean studies, Philosophy. Please note that only these specified arts majors will meet Engineers Australia accreditation.
- MAT1830 or FIT2085 If you have completed either unit as a First Year technical elective, you must replace the core with another unit from the software engineering technical electives list or from one of the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- The placement of units may be rearranged to support sequencing for double degree courses but care should be taken to ensure sequenced units are maintained in sequence.
- · Engineering minors are not available in the Engineering double degree courses.
- · You are required to complete at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD 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.
- · For enrolment advice, please refer to the Course advisers webpage