MONASH University

Course progression maps for 2024 commencing students

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. Please note that the map is subject to updates. Updated 16 January 2024

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

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)					
Year	**Sem**	**Units**			
1	Sem 1 Feb	ENG1012 Engineering design	PHS1001 Foundation physics * *Corequisite: ENG1090 **	ENG1090 Foundation mathematics *	FIT1047 Introduction to computer systems networks and security
	Sem 2 July	ENG1013 Engineering smart systems	ENG1005 Engineering mathematics *Required: ENG1090 **	ENG1014 Engineering numerical analysis *Corequisite: ENG1005*	FIT1045 Introduction to programming
You must complete ENG1013 Engineering smart systems in Year 1 and take ENG1011 Engineering methods in Year 2 (Semester 1) as an overload. This will increase the total credit points needed for the double degree by 6 points You cannot swap the semesters of any of the units.					

You do not have VCE Units 3 & 4 Specialist Maths >30 study score: You must enrol in Foundation mathematics (ENG1090)					
1	Sem 1 Feb	ENG1012 Engineering design	ENG1011 Engineering methods	ENG1090 Foundation mathematics *	FIT1047 Introduction to computer systems networks and security
	Sem 2 July	ENG1013 Engineering smart systems	ENG1005 Engineering mathematics *Required: ENG1090 **	ENG1014 Engineering numerical analysis *Corequisite: ENG1005*	FIT1045 Introduction to programming

You do not have VCE Units 3 & 4 Physics 25 study score: You must enrol in Foundation physics (PHS1001)					
1	Sem 1 Feb	ENG1012 Engineering design	ENG1013 Engineering smart systems	PHS1001 Foundation physics *	FIT1047 Introduction to computer systems networks and security
	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics *Required: ENG1090 **	ENG1014 Engineering numerical analysis *Corequisite: ENG1005*	FIT1045 Introduction to programming

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					
1	Sem 1 Feb	ENG1011 Engineering methods	ENG1005 Engineering mathematics *Required: ENG1090 **	ENG1014 Engineering numerical analysis *Corequisite: ENG1005*	FIT1047 Introduction to computer systems networks and security
	Sem 2 July	ENG1012 Engineering design	ENG1013 Engineering smart systems	First Year engineering breadth study	FIT1045 Introduction to programming
Tip: You can swap the semesters of your engineering elective and FIT1047.					

NOTE:

- * Foundation units: You 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.
- 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.

MONASH University

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Electrical and computer systems engineering
IT major – Business information systems

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	FIT1051 Programming fundamentals in Java	FIT1006 Business information analysis	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ECE2191 Probability and AI for engineers	ECE2072 Digital systems	FIT1049 IT professional practice	FIT2090 Business information systems and processes	
Year 3 Semester 1 February	ECE3073 Computer systems	ECE2131 Electrical circuits	FIT2001 Systems development	FIT2081 Mobile applications development	
Year 3 Semester 2 July	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics	FIT2002 IT project management	FIT2095 Full stack development	
Year 4 Semester 1 February	ECE3161 Analogue electronics	ECE3141 Information and networks	FIT3152 Data analytics	FIT2094 Databases	
Year 4 Semester 2 July	ECE4132 Control system design	Level 4 or 5 ECE-coded core elective	FIT3158 Business decision models	FIT3138 Real time enterprise systems	
Year 5 Semester 1 February	ENG4701 Final year project A	ECE3051 Electrical energy systems	Level 4 or 5 ECE-coded core elective	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- **ECE2072** - If you have completed the unit as a First Year elective, you must replace the core slot with another unit from the electrical and computer systems engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- 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.

MONASH University

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Electrical and computer systems engineering
IT major – Cybersecurity

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1057 Introduction to cyber security	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ECE2191 Probability and AI for engineers	ECE2072 Digital systems	FIT2094 Databases	FIT1093 Cybersecurity tools and techniques	
Year 3 Semester 1 February	ECE3073 Computer systems	ECE2131 Electrical circuits	FIT2001 Systems development	FIT2081 Mobile applications development	
Year 3 Semester 2 July	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics	FIT2002 IT project management	FIT2100 Operating systems	
Year 4 Semester 1 February	ECE3161 Analogue electronics	ECE3141 Information and networks	FIT3173 Software security	FIT3165 Computer networks	
Year 4 Semester 2 July	ECE4132 Control system design	Level 4 or 5 ECE-coded core elective	FIT3168 IT forensics	FIT3031 Network security	
Year 5 Semester 1 February	ENG4701 Final year project A	ECE3051 Electrical energy systems	Level 4 or 5 ECE-coded core elective	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- **ECE2072** - If you have completed the unit as a First Year elective, you must replace the core slot with another unit from the electrical and computer systems engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- *You must complete three units selected from FIT3031, FIT3165, FIT3168, FIT3173.
- 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.

MONASH University

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Electrical and computer systems engineering
IT major – Games and immersive media

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1073 Game design	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ECE2191 Probability and AI for engineers	ECE2072 Digital systems	FIT2094 Databases	FIT1033 Foundations of 3D	
Year 3 Semester 1 February	ECE3073 Computer systems	ECE2131 Electrical circuits	FIT2096 Games programming 1 or FIT2169 Immersive environments	FIT2098 Virtual and augmented reality	
Year 3 Semester 2 July	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics	FIT2001 Systems development	FIT2145 Game prototyping	
Year 4 Semester 1 February	ECE3161 Analogue electronics	ECE3141 Information and networks	FIT3187 3D character animation	FIT3172 Sonics	
Year 4 Semester 2 July	ECE4132 Control system design	Level 4 or 5 ECE-coded core elective	FIT2002 IT project management	FIT3197 Technical art	
Year 5 Semester 1 February	ENG4701 Final year project A	ECE3051 Electrical energy systems	Level 4 or 5 ECE-coded core elective	FIT3039 Studio project 1	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	FIT3040 Studio project 2	

NOTE:

- **ECE2072** - If you have completed the unit as a First Year elective, you must replace the core slot with another unit from the electrical and computer systems engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- 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.

MONASH University

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Electrical and computer systems engineering
IT major – Software development

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1050 Web fundamentals	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ECE2191 Probability and AI for engineers	ECE2072 Digital systems	FIT2094 Databases	FIT1051 Programming fundamentals in Java	
Year 3 Semester 1 February	ECE3073 Computer systems	ECE2131 Electrical circuits	FIT2001 Systems development	FIT2081 Mobile application development	
Year 3 Semester 2 July	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics	FIT2002 IT project management	FIT2104 Web database interface	
Year 4 Semester 1 February	ECE3161 Analogue electronics	ECE3141 Information and networks	FIT3077 Software engineering: architecture and design	FIT3178 iOS application development	
Year 4 Semester 2 July	ECE4132 Control system design	Level 4 or 5 ECE-coded core elective	FIT2175 Usability	FIT3146 Maker lab	
Year 5 Semester 1 February	ENG4701 Final year project A	ECE3051 Electrical energy systems	Level 4 or 5 ECE-coded core elective	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- **ECE2072** - If you have completed the unit as a First Year elective, you must replace the core slot with another unit from the electrical and computer systems engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be of the same level as the core unit or higher.
- 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.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation – Robotics and mechatronics engineering *(Artificial intelligence stream)*
IT major – Business information systems

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ECE2131 Electrical circuits	ECE2071 Computer organisation and programming	FIT1051 Programming fundamentals in Java	FIT1006 Business information analysis	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	FIT1049 IT professional practice	FIT2090 Business information systems and processes	
Year 3 Semester 1 February	MEC2402 Design methods	ECE3161 Analogue electronics	FIT2001 Systems development	FIT2081 Mobile applications development	
Year 3 Semester 2 July	TRC2201 Mechanics	TRC3600 Modelling and control	FIT2002 IT project management	FIT2095 Full stack development	
Year 4 Semester 1 February	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	FIT3152 Data analytics	FIT2094 Databases	
Year 4 Semester 2 July	ECE4078 Intelligent robotics	ECE4179 Neural networks and deep learning	FIT3158 Business decision models	FIT3138 Real time enterprise systems	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	ECE4076 Computer vision	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.
- If you have completed a unit in First Year (eg ECE2072) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core with another unit chosen from the robotics and mechatronics engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be at 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.
- You are required to complete the Continuous Professional Development in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation – Robotics and mechatronics engineering *(Artificial intelligence stream)*
IT major – Cybersecurity

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ECE2131 Electrical circuits	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1093 Cybersecurity tools and techniques	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	FIT2094 Databases	FIT1057 Introduction to cybersecurity	
Year 3 Semester 1 February	MEC2402 Design methods	ECE3161 Analogue electronics	FIT2001 Systems development	FIT2081 Mobile applications development	
Year 3 Semester 2 July	TRC2201 Mechanics	TRC3600 Modelling and control	FIT2002 IT project management	FIT2100 Operating systems	
Year 4 Semester 1 February	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	FIT3173 Software security	FIT3165 Computer networks	
Year 4 Semester 2 July	ECE4078 Intelligent robotics	ECE4179 Neural networks and deep learning	FIT3168 IT forensics	FIT3031 Network security	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	ECE4076 Computer vision	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.
- If you have completed a unit in First Year (eg ECE2072) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core with another unit chosen from the robotics and mechatronics engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be at the same level as the core unit or higher.
- *You must complete three units selected from FIT3031, FIT3165, FIT3168, FIT3173.
- 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.
- You are required to complete the Continuous Professional Development in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation – Robotics and mechatronics engineering *(Artificial intelligence stream)*
IT major – Games and immersive media

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ECE2131 Electrical circuits	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1073 Game design	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	FIT2094 Databases	FIT1033 Foundations of 3D	
Year 3 Semester 1 February	MEC2402 Design methods	ECE3161 Analogue electronics	FIT2096 Games programming 1 or FIT2169 Immersive environments	FIT2098 Virtual and augmented reality	
Year 3 Semester 2 July	TRC2201 Mechanics	TRC3600 Modelling and control	FIT2001 Systems development	FIT2145 Game prototyping	
Year 4 Semester 1 February	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	FIT3187 3D character animation	FIT3172 Sonics	
Year 4 Semester 2 July	ECE4078 Intelligent robotics	ECE4179 Neural networks and deep learning	FIT2002 IT project management	FIT3197 Technical art	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	ECE4076 Computer vision	FIT3039 Studio project 1	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	FIT3040 Studio project 2	

NOTE:

- 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.
- If you have completed a unit in First Year (eg ECE2072) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core with another unit chosen from the robotics and mechatronics engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be at 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.
- You are required to complete the Continuous Professional Development in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation – Robotics and mechatronics engineering *(Artificial intelligence stream)*
IT major – Software development

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ECE2131 Electrical circuits	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1050 Web fundamentals	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	FIT2094 Databases	FIT1051 Programming fundamentals in Java	
Year 3 Semester 1 February	MEC2402 Design methods	ECE3161 Analogue electronics	FIT2001 Systems development	FIT2081 Mobile application development	
Year 3 Semester 2 July	TRC2201 Mechanics	TRC3600 Modelling and control	FIT2002 IT project management	FIT2104 Web database interface	
Year 4 Semester 1 February	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	FIT3077 Software engineering: architecture and design	FIT3178 iOS application development	
Year 4 Semester 2 July	ECE4078 Intelligent robotics	ECE4179 Neural networks and deep learning	FIT2175 Usability	FIT3146 Maker lab	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	ECE4076 Computer vision	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.
- If you have completed a unit in First Year (eg ECE2072) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core with another unit chosen from the robotics and mechatronics engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be at 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.
- You are required to complete the Continuous Professional Development in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation – Robotics and mechatronics engineering *(Automation stream)*
IT major – Business information systems

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ECE2131 Electrical circuits	ECE2071 Computer organisation and programming	FIT1051 Programming fundamentals in Java	FIT1006 Business information analysis	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	FIT1049 IT professional practice	FIT2090 Business information systems and processes	
Year 3 Semester 1 February	MEC2402 Design methods	ECE3161 Analogue electronics	FIT2001 Systems development	FIT2081 Mobile applications development	
Year 3 Semester 2 July	TRC2201 Mechanics	TRC3600 Modelling and control	FIT2002 IT project management	FIT2095 Full stack development	
Year 4 Semester 1 February	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	FIT3152 Data analytics	FIT2094 Databases	
Year 4 Semester 2 July	TRC4902 Mechatronics and manufacturing	TRC4802 Thermo-fluids and power systems	FIT3158 Business decision models	FIT3138 Real time enterprise systems	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	TRC4200 Engineering cyber-physical systems	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.
- If you have completed a unit in First Year (eg ECE2072) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core slot with another unit chosen from the robotics and mechatronics engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be at 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.
- You are required to complete the Continuous Professional Development in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation – Robotics and mechatronics engineering *(Automation stream)*
IT major – Cybersecurity

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ECE2131 Electrical circuits	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1093 Cybersecurity tools and techniques	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	FIT2094 Databases	FIT1057 Introduction to cybersecurity	
Year 3 Semester 1 February	MEC2402 Design methods	ECE3161 Analogue electronics	FIT2001 Systems development	FIT2081 Mobile applications development	
Year 3 Semester 2 July	TRC2201 Mechanics	TRC3600 Modelling and control	FIT2002 IT project management	FIT2100 Operating systems	
Year 4 Semester 1 February	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	FIT3173 Software security	FIT3165 Computer networks	
Year 4 Semester 2 July	TRC4902 Mechatronics and manufacturing	TRC4802 Thermo-fluids and power systems	FIT3168 IT forensics	FIT3031 Network security	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	TRC4200 Engineering cyber-physical systems	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.
- If you have completed a unit in First Year (eg ECE2072) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core slot with another unit chosen from the robotics and mechatronics engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be at the same level as the core unit or higher.
- *You must complete three units selected from FIT3031, FIT3165, FIT3168, FIT3173.
- 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.
- You are required to complete the Continuous Professional Development in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation – Robotics and mechatronics engineering *(Automation stream)*
IT major – Games and immersive media

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ECE2131 Electrical circuits	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1073 Game design	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	FIT2094 Databases	FIT1033 Foundations of 3D	
Year 3 Semester 1 February	MEC2402 Design methods	ECE3161 Analogue electronics	FIT2096 Games programming 1 or FIT2169 Immersive environments	FIT2098 Virtual and augmented reality	
Year 3 Semester 2 July	TRC2201 Mechanics	TRC3600 Modelling and control	FIT2001 Systems development	FIT2145 Game prototyping	
Year 4 Semester 1 February	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	FIT3187 3D character animation	FIT3172 Sonics	
Year 4 Semester 2 July	TRC4902 Mechatronics and manufacturing	TRC4802 Thermo-fluids and power systems	FIT2002 IT project management	FIT3197 Technical art	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	TRC4200 Engineering cyber-physical systems	FIT3039 Studio project 1	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	FIT3040 Studio project 2	

NOTE:

- 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.
- If you have completed a unit in First Year (eg ECE2072) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core slot with another unit chosen from the robotics and mechatronics engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be at 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.
- You are required to complete the Continuous Professional Development in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation – Robotics and mechatronics engineering *(Automation stream)*
IT major – Software development

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Information Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	ECE2131 Electrical circuits	ECE2071 Computer organisation and programming	FIT1049 IT professional practice	FIT1050 Web fundamentals	If two foundation units are required then overload is required for ENG1011 Engineering methods
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	FIT2094 Databases	FIT1051 Programming fundamentals in Java	
Year 3 Semester 1 February	MEC2402 Design methods	ECE3161 Analogue electronics	FIT2001 Systems development	FIT2081 Mobile application development	
Year 3 Semester 2 July	TRC2201 Mechanics	TRC3600 Modelling and control	FIT2002 IT project management	FIT2104 Web database interface	
Year 4 Semester 1 February	TRC3200 Dynamical systems	TRC3500 Sensors and artificial perception	FIT3077 Software engineering: Architecture and design	FIT3178 iOS application development	
Year 4 Semester 2 July	TRC4902 Mechatronics and manufacturing	TRC4802 Thermo-fluids and power systems	FIT2175 Usability	FIT3146 Maker lab	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	TRC4200 Engineering cyber-physical systems	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.
- If you have completed a unit in First Year (eg ECE2072) that is also a core in your specialisation, or if you have completed a unit that is a prohibition to a core unit in your specialisation, you must replace the core slot with another unit chosen from the robotics and mechatronics engineering technical electives list or a unit listed in the engineering minors. The replacement unit must be at 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.
- You are required to complete the Continuous Professional Development in order to graduate.
- For enrolment advice, please speak with a course adviser in your specialisation. Refer to the Course Advisers webpage.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Software engineering
IT major – Business information systems

	Bachelor of Software Engineering (Honours)		Bachelor of Information Technology mation Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	MAT1830 Discrete mathematics for computer science	FIT2085 Introduction to computer science	FIT1051 Programming fundamentals in Java	FIT1006 Business information analysis	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	FIT1049 IT professional practice	FIT2090 Business information systems and processes	
Year 3 Semester 1 February	FIT3159 Computer architecture	FIT2099 Object oriented design and implementation	FIT2001 Systems development	FIT2081 Mobile applications development	
Year 3 Semester 2 July	FIT2107 Software quality and testing	FIT2100 Operating systems	FIT2002 IT project management	FIT2095 Full stack development	
Year 4 Semester 1 February	FIT3170 Software engineering practice (12 points)	FIT3077 Software engineering: architecture and design	FIT3152 Data analytics	FIT2094 Databases	
Year 4 Semester 2 July		Level 3 or 4 software engineering technical elective	FIT3158 Business decision models	FIT3138 Real time enterprise systems	
Year 5 Semester 1 February	FIT4002 Software engineering industry experience studio project (12 points)	FIT4701 Final year project A	FIT4165 Computer networks	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Software engineering
IT major – Cybersecurity

	Bachelor of Software Engineering (Honours)		Bachelor of Information Technology mation Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	MAT1830 Discrete mathematics for computer science	FIT2085 Introduction to computer science	FIT1049 IT professional practice	FIT1057 Introduction to cybersecurity	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	FIT2094 Databases	FIT1093 Cybersecurity tools and techniques	
Year 3 Semester 1 February	FIT3159 Computer architecture	FIT2099 Object oriented design and implementation	FIT2001 Systems development	FIT2081 Mobile applications development	
Year 3 Semester 2 July	FIT2107 Software quality and testing	FIT2100 Operating systems	FIT2002 IT project management	Level 2 or 3 FIT Elective	
Year 4 Semester 1 February	FIT3170 Software engineering practice (12 points)	FIT3077 Software engineering: architecture and design	FIT3173 Software security	Level 3 FIT Elective	
Year 4 Semester 2 July		Level 3 or 4 software engineering technical elective	FIT3168 IT forensics	FIT3031 Network security	
Year 5 Semester 1 February	FIT4002 Software engineering industry experience studio project (12 points)	FIT4701 Final year project A	FIT4165 Computer networks	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Software engineering
IT major – Games and immersive media

	Bachelor of Software Engineering (Honours)		Bachelor of Information Technology mation Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	MAT1830 Discrete mathematics for computer science	FIT2085 Introduction to computer science	FIT1049 IT professional practice	FIT1073 Game design	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	FIT2094 Databases	FIT1033 Foundations of 3D	
Year 3 Semester 1 February	FIT3159 Computer architecture	FIT2099 Object oriented design and implementation	FIT2096 Games programming 1 or FIT2169 Immersive environments	FIT2098 Virtual and augmented reality	
Year 3 Semester 2 July	FIT2107 Software quality and testing	FIT2100 Operating systems	FIT2001 Systems development	FIT2145 Game prototyping	
Year 4 Semester 1 February	FIT3170 Software engineering practice (12 points)	FIT3077 Software engineering: architecture and design	FIT3187 3D character animation	FIT3172 Sonics	
Year 4 Semester 2 July		Level 3 or 4 software engineering technical elective	FIT2002 IT project management	FIT3197 Technical art	
Year 5 Semester 1 February	FIT4002 Software engineering industry experience studio project (12 points)	FIT4701 Final year project A	FIT4165 Computer networks	FIT3039 Studio project 1	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	FIT3040 Studio project 2	

NOTE:

- 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.

MONASH University

Course progression map for 2024 commencing students

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. Please note that the map is subject to updates. Update version: 9 October 2023

E3011 Bachelor of Engineering (Honours) and Bachelor of Information Technology

Engineering specialisation - Software engineering
IT major – Software development

	Bachelor of Software Engineering (Honours)		Bachelor of Information Technology mation Technology		
Year 1 Semester 1 February	Common First Year			FIT1047 Introduction to computer systems, networks and security	
Year 1 Semester 2 July				FIT1045 Introduction to programming	
Year 2 Semester 1 February	MAT1830 Discrete mathematics for computer science	FIT2085 Introduction to computer science	FIT1049 IT professional practice	FIT1050 Web fundamentals	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	FIT2094 Databases	FIT1051 Programming fundamentals in Java	
Year 3 Semester 1 February	FIT3159 Computer architecture	FIT2099 Object oriented design and implementation	FIT2001 Systems development	FIT2081 Mobile application development	
Year 3 Semester 2 July	FIT2107 Software quality and testing	FIT2100 Operating systems	FIT2002 IT project management	FIT2104 Web database interface	
Year 4 Semester 1 February	FIT3170 Software engineering practice (12 points)	FIT3077 Software engineering: architecture and design	Level 3 FIT Elective	FIT3178 iOS application development	
Year 4 Semester 2 July		Level 3 or 4 software engineering technical elective	FIT2175 Usability	FIT3146 Maker lab	
Year 5 Semester 1 February	FIT4002 Software engineering industry experience studio project (12 points)	FIT4701 Final year project A	FIT4165 Computer networks	FIT3047 IE Studio project 1	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	FIT3048 IE Studio project 2	

NOTE:

- 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.