

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 should be used in conjunction with the requirements of the course as specified in the Handbook. The map is subject to updates. Update version: 18 December 2023

E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Aerospace Engineering

	Bachelor of Aerospace	Engineering (Honours)	Bachelor	of Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Mathematics for engineering if not already completed or 1st year engineering elective	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	ENG2005 Advanced engineering mathematics	MAE2402 Thermodynamics and heat transfer Unit title change from 2021	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (advanced)	
AR 3 Semester 1	MAE2401 Aircraft structures 1 Replace with MEC2403 from 2023	MEC2401 Dynamics 1	Science major level 3	Science elective	
YEAR 3 Semester 2	MAE2404 Aerodynamics 1	MAE2405 Aircraft performance	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 1	MAE3401 Aerodynamics 2	MAE3404 Flight vehicle dynamics	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 2	MAE3426 Computer- aided design	MAE3405 Flight vehicle propulsion Unit title change from 2022	Science major level 3	Science elective level 2 or 3	
YEAR 5 Semester 1	MEC4401 Final year project Replace with ENG4701 from 2021/22	MAE4404 Aerospace practices Replace with MEC4404 from 2023	MAE4411 Aircraft structures 2	MAE3456 Aerospace computational mechanics Replace with MEC3456 from 2023	
YEAR 5 Semester 2	MEC4402 Final year – thesis Replace with ENG4702 from 2022	MAE4410 Flight Vehicle design	MAE4408 Damage tolerance and airworthiness	MAE3408 Aerospace control	

All Bachelor of Engineering (Honours) students are required to complete <u>Continuous Professional Development (CPD)</u> in order to graduate. For CPD advice, refer to the CPD webpage. For enrolment advice, please refer to the Course advisers webpage

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E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Chemical Engineering

	Bachelor of Chemical	Engineering (Honours)	Bachelo	Bachelor of Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Mathematics for engineering if not already completed or 1st year engineering elective	Science major level 1 approved science sequence 1	Level 1 approved Science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	ENG2005 Advanced engineering mathematics	CHE2163 Heat and mass transfer	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (advanced)	
YEAR 3 Semester 1	CHM1011 Chemistry 1	CHE2161 Mechanics of fluids	Science major level 3	Science elective	
YEAR 3 Semester 2	CHE2162 Materials and energy balances	CHE2164 Thermodynamics 1	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 1	CHE3161 Chemistry and chemical thermodynamics	CHE3165 Separation processes	Science major level 3	Science elective level 2 or 3	CHE3167 Transport phenomena and numerical methods (for students planning to enrol in CHE4164)
YEAR 4 Semester 2	CHE3166 Process design	CHE3164 Reaction engineering	Science major level 3	Science elective level 2 or 3	
YEAR 5 Semester 1	CHE4164 Integrated industrial p For selected students taking a period of [CHE4161 and CHE4180 (or ENG4701				
YEAR 5 Semester 1	CHE4180 Chemical engineering project Replace with ENG4701 from 2021. See footnote	CHE4162 Particle technology	CHE4161 Engineer in society	CHE3167 Transport phenomena and numerical methods	
YEAR 5 Semester 2	ENG4702 Final year project B See footnote	CHE4170 Design project		CHE3162 Process control	

Note:

- · From 2021, ENG4701 and ENG4702 will replace the 12 credit points CHE4180, therefore extending the final year project over two semesters. Please seek course advice if needed.
- Depending on placement location, students who choose CHE4164 may have to overload a semester or extend an additional semester in order to complete their course requirement.
- Students should not overload in the semester of undertaking CHE4170.
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E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Civil Engineering

	Bachelor of Civil Eng	gineering (Honours)	Bachelo	or of Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Mathematics for engineering if not already completed or 1st year engineering elective	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	ENG2005 Advanced engineering mathematics	Science elective	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (Advanced)	
YEAR 3 Semester 1	CIV2225 Design of steel and timber structures Replace with CIV2235 from 2021	CIV2263 Water systems	CIV2206 Mechanics of solids Unit title change in 2019	Science major level 3	
YEAR 3 Semester 2	CIV2242 Geomechanics 1	CIV2282 Transport and traffic engineering	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 1	CIV3285 Engineering hydrology	CIV3221 Building structures and technology	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 2	CIV3247 Geomechanics 2	CIV3204 Engineering investigation See footnote	Science major level 3	Science elective level 2 or 3	
YEAR 5 Semester 1	CIV4210 Project A Replace with ENG4701 from 2022. See footnote	CIV3248 Groundwater and environmental geomechanics	CIV4286 Project management for civil engineers	CIV4280 Bridge design and assessment	
YEAR 5 Semester 2	CIV4287 Road engineering Replace with ENG4702 from 2022. See footnote	CIV3284 Design of concrete and masonry structures Replace with CIV3294 from 2022	CIV4212 Civil and environmental engineering practice	CIV4288 Water treatment	
Note:					

- · FROM 2022: Following a recent advice by Engineers Australia, you must complete 12 CP of a final year project in order to meet professional accreditation requirements. Please seek course advice from the Student Services at the Faculty of Engineering.
- CIV4210 If you are course-completing in 2022/S1, complete CIV4210 (for 6CP FYP) or CIV4211 (if undertaking 12CP FYP). Otherwise, replace CIV4210 with ENG4701 from 2022.
- · CIV3204 If you have not completed CIV3204 by 2021, replace CIV3204 with CIV3283 Road engineering from 2022.
- CIV4287 If you have completed CIV3204 but not CIV4287 by 2021, replace CIV4287 with ENG4702 from 2022. CIV3283 is highly recommended to be taken as a level 3 civil engineering technical elective.
- 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 at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information refer to the CPD webpage. For enrolment advice, please refer to the Course Advisers webpage

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E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Electrical and Computer Systems Engineering

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelo	or of Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 if not already completed or 1st year engineering elective	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger orENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	ENG2005 Advanced engineering mathematics	ECE2072 Digital systems	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (Advanced)	
YEAR 3 Semester 1	ECE2071 Computer organisation and programming	ECE2131 Electrical circuits	Science major level 3	Science elective	
YEAR 3 Semester 2	ECE2111 Signals and systems	ECE2191 Probability models in engineering	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 1	ECE3073 Computer systems	ECE3141 Information and networks	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 2	ECE3121 Engineering electromagnetics Replace ECE3121 with ECE3122 in 2024	ECE3091 Engineering design Replace with ECE4191 from 2022. See footnote	Science major level 3	Science elective level 2 or 3	
YEAR 5 Semester 1	ECE4094 Project A Replace with ENG4701 from 2021/22	ECE3161 Analogue electronics	ECE3051 Electrical energy systems*	Level 4 or 5 ECE-coded core elective	
YEAR 5 Semester 2	ECE4095 Project B Replace with ENG4702 from 2022	Level 4 or 5 ECE-coded core elective	ECE4132 Control system design**	ECE4099 Professional Practice	

^{*} This unit replaces ECE4151 Electrical energy systems

ECE3091 – Replace with ECE4191 if you have not completed ECE3091 by 2021. ECE4191 should be undertaken in your final year of study by swapping placement on the course map with ECE4132 or the level 4 ECSE technical elective.

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^{**} This unit replaces ECE3132 Control systems design



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E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Environmental Engineering

	Bachelor of Environmental Engineering (Honours)		Bachelor o	of Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Mathematics for engineering if not already completed or 1st year engineering elective	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics Replaced by PHS1001 from 2018
YEAR 2 Semester 2	ENG2005 Advanced engineering mathematics	CHE2162 Material and energy balances	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (Advanced)	
YEAR 3 Semester 1	BIO2011 Ecology and biodiversity	CIV2263 Water systems	Science major level 3	Science elective	
YEAR 3 Semester 2	CHE2164 Thermodynamics	ENE2503 Materials properties and recycling	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 1	CIV3248 Groundwater and environmental geomechanics	ENE3048 Energy and the environment Replaced by ENE2021 from 2019	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 2	ENE3606 The air environment	CIV4286 Project management for civil engineers	Science major level 3	Science elective level 2 or 3	
YEAR 5 Semester 1	Streams: Geomechanics, Transport, Water management CIV4210 Project A Replace with ENG4701 from 2022. See footnote	CIV3285 Engineering hydrology	ENE3608 Environmental impact assessment and management systems Replaced by ENE4042	ECC2800 Prosperity, poverty and sustainability in a globalised world	
YEAR 5 Semester 2	ENE4607 Environmental risk assessment Replace with ENG4702 from 2022. See footnote	Streams: Geomechanics, Transport, Water management CIV4212 Civil and environmental engineering practice Stream: Sustainable processing CHE4170 Design project	BTX3100 Sustainability regulation for business Semester 1 offering	Environmental engineering elective at level 4	
Nata		Cric4170 Design project			

Note

- FROM 2022: Following a recent advice by Engineers Australia, you must complete 12 CP of a final year project (FYP) in order to meet professional accreditation requirements. To undertake 12CP FYP units ENG4701 and ENG4702, you must free up 6 credit points by reserving the level 4 technical elective (the 6 CP elective that counts towards the Part C and D of the course requirement) for the FYP or by dropping ENE4607 or BTX3100 (if you haven't already completed these units by 2021). Please seek course advice from the Student Services at the Faculty of Engineering.
- CIV4210 If you are course-completing in 2022/S1, complete CIV4210 (if undertaking 6CP FYP only) or CIV4211 (if undertaking 12CP FYP). Otherwise, replace CIV4210 with ENG4701 from 2022.
- · 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 at least 420 hours of Continuous Professional Development (CPD) in order to graduate. For further information, refer to the CPD webpage.
- $\cdot\;$ For enrolment advice, please refer to the $\underline{\text{Course Advisers webpage}}$

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E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Materials Engineering

	Bachelor of Materials	Engineering (Honours)	Bachelor	of Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Mathematics for engineering if not already completed or 1st year engineering elective	Science major level 1 approved science sequence1	Level 1 approved science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger orENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	ENG2005 Advanced engineering mathematics	Science elective	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (Advanced)	
YEAR 3 Semester 1	MTE2541 Crystal structures, thermodynamics and phase equilibria See footnote 1	MTE2546 Mechanics of materials Replace with MTE2103 from 2021.	MTE2544 Functional materials Replace with MTE2202 from 2021 (Semester 2 offering)	Science major level 3	
YEAR 3 Semester 2	MTE2542 Microstructural development Replace with MTE2102 from 2021 (Semester 1 offering)	MTE2545 Polymers and ceramics 1 See footnote 2	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 1	MTE3543 Microstructure to applications: The mechanics of materials See footnote 3	MTE3542 Microstructural design in structural materials Replace with MTE3102 from 2022	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 2	MTE3545 Functional materials and devices Replace with MTE3202 from 2022.	MTE3546 Polymers and ceramics 2 Replace with MTE3203 from 2022. See footnote 2	Science major level 3	Science elective level 2 or 3	
YEAR 5 Semester 1	MTE4525 Project 1 Replace with ENG4701 from 2021/22	MTE3541 Materials durability Replace with MTE3103 from 2022.	MTE4572 Polymer and composite processing and engineering See footnote 3	MTE4571 Materials engineering design and practice See footnote 3	
YEAR 5 Semester 2	MTE4526 Project 2 Replace with ENG4702 from 2022	MTE3547 Materials characterisation and modelling See footnote 1	MTE4573 Processing and engineering of metals and ceramics See footnote 3	Level 4 or 5 MTE-coded materials engineering core elective	

Note:

- MINORS AND ELECTIVES LIST is located on the Faculty's current student course information webpage.
- MTE2101 and MTE3101 will be replacing MTE2541 and MTE3547 respectively. If you have completed MTE2541 prior to 2021, you must complete MTE3547 (last offering 2021). Otherwise, complete MTE2101 and MTE3101 combination.
- 2. MTE2201 and MTE3203 will be replacing MTE2545 and MTE3546 respectively. If you have completed MTE2545 prior to 2021, you must complete MTE3546 (last offering 2021). Otherwise, complete MTE2201 and MTE3203 combination.
- 3. You must complete the (MTE3543+MTE4571+MTE4572+MTE4573) combination (last offerings 2022). Otherwise, complete (MTE3201+MTE4101+MTE4102+MTE4201) combination.
- · 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.
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E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Mechanical Engineering

	Bachelor of Mechanical		Bachelor	of Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Mathematics for engineering if not already completed or 1st year engineering elective	Science major level 1 sequence 1	Level 1 approved science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger orENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	ENG2005 Advanced engineering mathematics	Science elective	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (advanced)	
YEAR 3 Semester 1	MEC2402 Engineering design 1 Unit title change in 2021	MEC2403 Mechanics of materials	MEC2401 Dynamics 1	Science major level 3	
YEAR 3 Semester 2	MEC2404 Mechanics of fluids	MEC2405 Thermodynamics	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 1	MEC3455 Solid Mechanics	MEC3456 Engineering computational analysis	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 2	MEC3416 Engineering design 2 Unit title change in 2021	MEC3457 Systems and control	Science major level 3	Science elective level 2 or 3	
YEAR 5 Semester 1	MEC4401 Final year project Replace with ENG4701 from 2021/22	MEC4408 Thermodynamics and heat transfer	MEC3451 Fluid Mechanics 2	MEC4404 Professional practice	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MEC4426 Computer- aided design	MEC3453 Dynamics 2	MEC4407 Engineering design 3 Unit title change from 2021	

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E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Mechatronics Engineering

	Bachelor of Mechatronic	s Engineering (Honours)	Bacheloi	r of Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Mathematics for engineering if not already completed or 1st year engineering elective	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger orENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	ENG2005 Advanced engineering mathematics	Science elective	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (advanced)	
YEAR 3 Semester 1	ECE2071 Computer organisation and programming	MEC2402 Engineering design 1 Unit title change in 2021	ECE2131 Electrical circuits	Science major level 3	
YEAR 3 Semester 2	TRC2201 Mechanics	TRC2001 Introduction to systems engineering	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 1	TRC3802 Thermo-fluids and power systems Unit is re-coded TRC4802 from 2018	TRC3200 Dynamical systems	Science major level 3	Science elective level 2 or 3	
YEAR 4 Semester 2	TRC3600 Modelling and control	TRC3000 Mechatronics project 2	Science major level 3	Science elective level 2 or 3	
YEAR 5 Semester 1	TRC4000 Mechatronics final year project 1 Replace with ENG4701 from 2021/22	TRC4800 Robotics	TRC3500 Sensors and artificial perception	MEC4418 Control systems This unit is not offered in 2019 and is replaced by ECE3141 Information and networks	
YEAR 5 Semester 2	TRC4001 Mechatronics final year project 2 Replace with ENG4702 from 2022	TRC4902 Mechatronics and manufacturing	ECE3161 Analogue electronics	TRC4002 Professional practice	

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E3007 Bachelor of Engineering (Honours) and Bachelor of Science

Specialisation - Software Engineering

	Bachelor of Software E		Bachelor of Science		
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1090 Foundation mathematics if required or PHS1080 Foundation physics if required or ENG1005 Mathematics for engineering	Science major level 1 approved science sequence 1	Level 1 approved science sequence 2	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger	ENG1005 Mathematics for engineering if not already completed or 1st year engineering elective	Science major level 1 sequence 1	Level 1 approved science sequence 2	
YEAR 2 Semester 1	ENG1003 Engineering mobile applications or ENG1001 Engineering design: lighter, faster, stronger or ENG1002 Engineering design: cleaner, safer, smarter	ENG1060 Computing for engineers	Science major level 2	Level 1 science unit	If two foundation units are required then overload is required for PHS1080 Foundation physics This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	FIT2085 Introduction to Computer Science	FIT2101 Software engineering process and management	Science major level 2	SCI2010 Scientific practice and communication or SCI2015 Scientific practice and communication (advanced)	
YEAR 3 Semester 1	MAT1830 Discrete mathematics for computer science	FIT2099 Object-oriented design and implementation	FIT2004 Algorithms and data structures	Science major level 3	
YEAR 3 Semester 2	FIT2107 Software quality and testing	FIT2100 Operating systems	Science elective level 2 or 3	Science major level 3	
YEAR 4 Semester 1	FIT3170 Software	FIT3077 Software engineering: architecture and design	FIT3159 Computer architecture	Science major level 3	
YEAR 4 Semester 2	engineering practice (12 credit points)	FIT3171 Databases	Science elective	Science major level 3	
YEAR 5 Semester 1	FIT4002 Software engineering industry	FIT4003 Software engineering research project Replace with FIT4701 from 2023	FIT4165 Computer networks	Science elective level 2 or 3	
YEAR 5 Semester 2	experience studio project (12 credit points)	Replace with <u>FIT4702</u> from 2023	Software engineering elective at level 4 or 5	Science elective level 2 or 3	

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