

# Course progression map for 2023 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. Version update: 18 December 2023

# E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce 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 *	ENG1090 Foundation mathematics *	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers
·	Sem 2 July	ENG1011 Engineering methods	ENG1005 Engineering mathematics Required: ENG1090 *	ENG1014 Engineering numerical analysis Required: ENG1005	ECC1000 Principles of microeconomics

- If you require two foundation units, you will need to take the remaining core unit ENG1013 Engineering smart systems in semester one of year two 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.
- 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)									
1	Sem 1	ENG1012 Engineering design	ENG1011 Engineering methods	ENG1090 Foundation mathematics *	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers				
	Sem 2	ENG1013 Engineering smart systems	ENG1005 Engineering mathematics Required: ENG1090 *	ENG1014 Engineering numerical analysis Required: ENG1005	ECC1000 Principles of microeconomics				
Tip: You c	an swap the	e semester of ENG1013 and your s	emester 2 commerce unit if you like	e					

You do n	You do not have VCE Units 3 & 4 Physics >25 study score: You must enrol in Foundation physics (PHS1001)									
1	Sem 1	ENG1005 Engineering mathematics Required: ENG1090 *	ENG1013 Engineering smart systems	PHS1001 Foundation physics *	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers					
	Sem 2	ENG1011 Engineering methods	ENG1012 Engineering design	ENG1014 Engineering numerical analysis Required: ENG1005	ECC1000 Principles of microeconomics					
Tip: You o	an swap the	e semester of ENG1013 and your s	semester 2 commerce unit if you like	ie.						

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 Required: ENG1005	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers				
	Sem 2	ENG1012 Engineering design	ENG1013 Engineering smart systems	First Year engineering technical elective	ECC1000 Principles of microeconomics				
Tin: You c	an swan the	semester of your first year engine	ering elective and your semester 1	Commerce unit					

- · \* 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 <a href="mailto:the-required study score">the-required study score</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.



## E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation - Aerospace Engineering

	Bachelor of Aerospace Eng	gineering (Honours)	Bachelor of Commerce		
Year 1 Semester 1 February		Common first year	-	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers  ECC1000 Principles of	
Semester 2				microeconomics	
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	MEC2402 Design methods	ETC1000 Business and economics statistics or ETX1100 Business statistics	BTC1110 Commercial law or BTX1010 Business law	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	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	MEC2403 Mechanics of materials	MAE3401 Aerodynamics 2	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	MAE2505 Aerospace dynamics	MAE3405 Aerospace propulsion	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	MAE3456 Aerospace computational mechanics	MAE3404 Flight vehicle dynamics	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	MAE3411 Aerospace structural mechanics	MAE3408 Aerospace control	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	MEC4404 Professional practice	MAE4416 Orbital mechanics and spaceflight dynamics	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	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	Commerce elective unit from the Faculty of Business and Economics	

- · 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.



# Course progression map for 2023 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

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## E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation - Chemical Engineering

	Bachelor of Chemical En	gineering (Honours)	Bachelor of Commerce		
Year 1 Semester 1 February  Year 1 Semester 2		Common first year		ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers  ECC1000 Principles of microeconomics	
July		-	<del>-</del>		
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	CHM1011 Chemistry 1 (if not already completed at level 1) or CHM1051 Chemistry 1 Advanced	ETC1000 Business and economics statistics or ETX1100 Business statistics	BTC1110 Commercial law or BTX1010 Business law	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	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	CHE2164 Thermodynamics 1	CHE3167 Transport phenomena and numerical methods	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	CHE2163 Heat and mass transfer	CHE3162 Process control	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	CHE3161 Chemistry and chemical thermodynamics	CHE3165 Separation processes	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	CHE3166 Process design	CHE3164 Reaction engineering	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	CHE4162 Particle technology	CHE4161 Engineers in society	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	CHE4170 Design project (	12 points)	Commerce elective unit from the Faculty of Business and Economics	

- 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.
- 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.



# E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation - Civil Engineering

	Bachelor of Civil Engineer	ring (Honours)	Bachelor of Commerce		
Year 1 Semester 1 February Year 1 Semester 2		Common first year	-	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers  ECC1000 Principles of microeconomics	
Year 2 Semester 1 February	CIV2282 Transport and traffic engineering	CIV2206 Structural mechanics	ETC1000 Business and economics statistics or ETX1100 Business statistics	BTC1110 Commercial law or BTX1010 Business law	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	CIV2235 Structural materials	ENG2005 Advanced engineering mathematics	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	CIV3294 Structural design	CIV2263 Water systems	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	CIV3283 Road engineering	CIV2242 Geomechanics 1	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	CIV3285 Engineering hydrology	CIV4286 Project management for civil engineers	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	CIV3247 Geomechanics 2	CIV3221 Building structures and technology	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	CIV4280 Bridge design and assessment	CIV4249 Foundation engineering	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	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	Commerce elective unit from the Faculty of Business and Economics	

- 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.



## E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation - Electrical and Computer Systems Engineering

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelor of Commerce	Sachelor of Commerce	
Year 1 Semester 1 February		Common first year	-	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers	
Year 1 Semester 2 July				ECC1000 Principles of microeconomics	
Year 2 Semester 1 February	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	ETC1000 Business and economics statistics or ETX1100 Business statistics	BTC1110 Commercial law or BTX1010 Business law	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	ECE2191 Probability models in engineering	ECE2072 Digital systems	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	ECE3073 Computer systems	ECE2131 Electrical circuits	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics Replace ECE3121 with ECE3122 in 2024	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	ECE3161 Analogue electronics	ECE3141 Information and networks	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	Level 4 or 5 ECE-coded core elective	ECE4132 Control system design	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	ECE3051 Electrical energy systems	Level 4 or 5 ECE- coded core elective	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	ECE4191 Engineering integrated design	ECE4099 Professional practice	Commerce elective unit from the Faculty of Business and Economics	

- · 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.
- · 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.
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## E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation - Environmental Engineering

	Bachelor of Environmental	Engineering (Honours)	Bachelor of Commerce		
Year 1 Semester 1 February  Year 1 Semester 2		Common first year		ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers  ECC1000 Principles of microeconomics	
Year 2 Semester 1	BTX3100 Sustainability regulation for business See footnote	ENE2021 Energy and the environment	ETC1000 Business and economics	BTC1110 Commercial law or BTX1010	If two foundation units are required then overload is required for ENG1013
February	Gee looniote		statistics or <u>ETX1100</u> Business statistics	Business law	Engineering smart
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	CHE2162 Material and energy balances	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	- Cystome
Year 3 Semester 1 February	CHE2164 Thermodynamics 1	CIV2263 Water systems	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	ENE3031 Building sustainability	ENE2503 Materials properties and recycling	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	CIV3248 Groundwater and environmental geomechanics	CIV3285 Engineering hydrology	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	ENE3606 The air environment	ENE3032 Fate and transport of contaminants	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	CIV4286 project management for civil engineers	ENE4042 Environment impact and risk assessment	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	ENE4041 Soil remediation and solid waste management	CIV4212 Civil and environmental engineering practice	Commerce elective unit from the Faculty of Business and Economics	

- · Engineering minors are not available in the Engineering double degree courses.
- BTX3100 is a core unit in both the Sustainability major and the environmental engineering specialisation. If you are majoring in Sustainability in the Bachelor of Commerce, you must replace the BTX3100 requirement in the environmental engineering specialisation with a level 3 or 4 unit chosen from the environmental engineering technical electives list and complete BTX3100 for your Sustainability major.
- 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.
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## E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation - Materials Engineering

	Bachelor of Materials E	ngineering (Honours)	Bachelor of Commerce		
Year 1 Semester 1 February		Common first year		ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers	
Year 1 Semester 2 July				ECC1000 Principles of microeconomics	
Year 2 Semester 1 February	MTE2101 Atomic- scale structure of materials	MTE2103 Mechanical properties of materials	ETC1000 Business and economics statistics or ETX1100 Business statistics	BTC1110 Commercial law or BTX1010 Business law	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	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	MTE3103 Materials life cycle	MTE2102 Phase equilibria and phase transformations	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	MTE3203 Introduction to ceramics: Properties, processing and applications	MTE2202 Functional materials 1	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	MTE3102 Plasticity of metals and alloys	MTE3101 Materials in a complex world 1: People, projects and data	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	MTE3202 Functional materials 2	MTE3201 Materials in a complex world 2: Characterisation, identification and selection	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	MTE4101 Integrated design project	MTE4102 Advanced materials processing and manufacturing	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	MTE4201 Materials in a complex world 3: Impact in society	Level 4 or 5 MTE-coded materials engineering technical elective	Commerce elective unit from the Faculty of Business and Economics	

- · 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.
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## E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation - Mechanical Engineering

	Bachelor of Mechanical	Engineering (Honours)	Bachelor of Commerce		
Year 1 Semester 1 February  Year 1 Semester 2 July		Common first year		ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers  ECC1000 Principles of microeconomics	
Year 2 Semester 1 February	MEC2403 Mechanics of materials	MEC2401 Dynamics 1	ETC1000 Business and economics statistics or ETX1100 Business statistics	BTC1110 Commercial law or BTX1010 Business law	If two foundation units are required then overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	MEC2404 Mechanics of fluids	ENG2005 Advanced engineering mathematics	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	MEC2402 Design methods	MEC3456 Engineering computational analysis	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	MEC3457 Systems and control	MEC2405 Thermodynamics	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	MEC3455 Solid mechanics	MEC3451 Fluid mechanics 2	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	MEC3453 Dynamics 2	MEC3416 Machine design	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	MEC4404 Professional Practice	MEC4408 Thermodynamics and heat transfer	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	MEC4407 Design project	MEC4426 Computer- aided design	Commerce elective unit from the Faculty of Business and Economics	

### NOTE:

- 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.
- · 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.
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### Page 8 of 11



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## E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation – Robotics and Mechatronics Engineering – Artificial intelligence stream

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Commerce	Bachelor of Commerce	
Year 1 Semester 1 February		Common first year	-	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers	
Year 1 Semester 2 July				ECC1000 Principles of microeconomics	
Year 2 Semester 1 February	ECE2071 Computer organisation and programming	ECE2131 Electrical circuits	ETC1000 Business and economics statistics or ETX1100 Business statistics	BTC1110 Commercial law or BTX1010 Business law	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	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	TRC3200 Dynamical systems	MEC2402 Design methods	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	ECE4179 Neural networks and deep learning	ECE2072 Digital systems	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	ECE3161 Analogue electronics	TRC3500 Sensors and artificial perception	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	TRC3600 Modelling and control	ECE4078 Intelligent robotics	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	ECE4076 Computer vision	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	ECE4191 Engineering integrated design	TRC4002 Professional Practice	Commerce elective unit from the Faculty of Business and Economics	

- 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.
- · 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.
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# E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation – Robotics and Mechatronics Engineering – Automation stream

	Bachelor of Robotics and Mechatronics Engineering (Honours)		Bachelor of Commerce		
Year 1 Semester 1 February Year 1 Semester 2		Common first year	_	ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers  ECC1000 Principles of microeconomics	
July Year 2	ECE2071 Computer organisation and	ECE2131 Electrical circuits	ETC1000 Business and economics	BTC1110 Commercial law or BTX1010	If two foundation units are required then
Semester 1 February	programming		statistics or ETX1100 Business statistics	Business law	overload is required for ENG1013 Engineering smart systems
Year 2 Semester 2 July	ENG2005 Advanced engineering mathematics	TRC2201 Mechanics	MKC1200 Principles of marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	TRC3200 Dynamical systems	MEC2402 Design methods	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	TRC4802 Thermo-fluids and power systems	ECE2072 Digital systems	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	ECE3161 Analogue electronics	TRC3500 Sensors and artificial perception	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July	TRC3600 Modelling and control	TRC4902 Mechatronics and manufacturing	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	ENG4701 Final year project A	TRC4800 Robotics	TRC4200 Engineering cyber-physical systems	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	ENG0001 Continuous Professional Development (0 credit points)
Year 5 Semester 2 July	ENG4702 Final year project B	TRC4407 Automation design project	TRC4002 Professional Practice	Commerce elective unit from the Faculty of Business and Economics	

- · 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.
- · 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.
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## E3005 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialisation - Software Engineering

	Bachelor of Software Engineering (Honours)		Bachelor of Commerce		
Year 1 Semester 1 February  Year 1 Semester 2 July		Common first year		ACC1100/ACX1100 Introduction to financial accounting or ACC1200/ACX1200 Accounting for managers  ECC1000 Principles of microeconomics	
Year 2 Semester 1 February	MAT1830 Discrete mathematics for computer science	FIT2085 Introduction to computer science	ETC1000 Business and economics statistics or ETX1100 Business statistics	BTC1110 Commercial law or BTX1010 Business law	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	MKC1200 Principles of Marketing	MGC1010/MGX1010 Introduction to management	
Year 3 Semester 1 February	FIT3159 Computer architecture	FIT2099 Object oriented design and implementation	Commerce listed major unit 1	Commerce listed major unit 2	
Year 3 Semester 2 July	FIT2107 Software quality and testing	FIT2100 Operating systems	Commerce listed major unit 3	Commerce listed major unit 4	
Year 4 Semester 1 February	FIT3170 Software engineering practice (12 points)	FIT3077 Software engineering: architecture and design	Commerce listed major 3 <sup>rd</sup> year level unit 5	Commerce listed major 3 <sup>rd</sup> year level unit 6	
Year 4 Semester 2 July		FIT3171 Databases	Commerce listed major 3 <sup>rd</sup> year level unit 7	Capstone, consulting project, international experience or internship unit	
Year 5 Semester 1 February	FIT4002 Software engineering industry experience studio project (12 points)	FIT4701 Final year project A	FIT4165 Computer networks	Commerce listed major unit 8 or additional commerce unit from the Faculty of Business and Economics	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	Commerce elective unit from the Faculty of Business and Economics	

- 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. The replacement unit must be at 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.