

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 <a href="Handbook"><u>Handbook</u></a>. The map is subject to updates. Update version: 18 December 2023

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Aerospace engineering and Actuarial science

	Bachelor of Aerospac	e Engineering (Honours)	Bachelor of Act	uarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter <b>or</b> ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	MEC2401 Dynamics 1	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	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	MAE2404 Aerodynamics 1	MAE2402 Thermodynamics and heat transfer Unit title change in 2021	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	MAE2401 Aircraft structures 1 Replace with MEC2403 from 2023	MAE3401 Aerodynamics 2	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	MAE2405 Aircraft performance (if not already completed in First Year) or a 6 credit point unit as directed by the Course Coordinator	MAE3405 Flight vehicle propulsion Unit title change in 2022	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
YEAR 4 Semester 1	MAE3456 Aerospace computational mechanics Replace with MEC3456 from 2023	MAE3404 Flight vehicle dynamics	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	MAE3426 Computer- aided design	MAE3408 Aerospace control	Actuarial science specialisation unit level 3 (list b)	Actuarial science specialisation unit level 2 (list b)	
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	ECC1000 Principles of microeconomics	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MAE4410 Flight vehicle design	MAE4408 Damage tolerance and airworthiness	ETC3530 Contingencies in insurance and pensions	



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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Aerospace engineering and Finance

	Bachelor of Aerospac	e Engineering (Honours)	Bachelor o	f Finance	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	MEC2401 Dynamics 1	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	If two foundation units are required then overload is required for PHS 1080 Foundation physics  *This unit is replaced by PHS 1001 Foundation physics from 2018
YEAR 2 Semester 2	MAE2404 Aerodynamics 1	MAE2402 Thermodynamics and heat transfer Unit title change in 2021	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	MAE2401 Aircraft structures 1 Replace with MEC2403 from 2023	MAE3401 Aerodynamics 2	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	MAE2405 Aircraft performance (if not already completed in First Year) or a 6 credit point unit as directed by the Course Coordinator	MAE3405 Flight vehicle propulsion Unit title change in 2022	BFC3540 Modelling in finance	BFC2751 Derivatives 1	
YEAR 4 Semester 1	MAE3456 Aerospace computational mechanics Replace with MEC3456 from 2023	MAE3404 Flight vehicle dynamics	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	MAE3426 Computer- aided design	MAE3408 Aerospace control	BFC3240 International finance	BFC3340 Derivatives 2	
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	BFC2240 Equities and investment analysis	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MAE4410 Flight vehicle design Semester 1 offering from 2023	MAE4408 Damage tolerance and airworthiness	BFC3999 Finance and society (capstone)	



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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Aerospace engineering and Economics and economic policy

	Bachelor of Aerospace	e Engineering (Honours)	Bachelor of l	Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter <b>or</b> ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	MEC2401 Dynamics 1	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	If two foundation units are required then overload is required for PHS 1080 Foundation physics  *This unit is replaced by PHS 1001 Foundation physics from 2018
YEAR 2 Semester 2	MAE2404 Aerodynamics 1	MAE2402 Thermodynamics and heat transfer Unit title change in 2021	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level 2	
YEAR 3 Semester 1	MAE2401 Aircraft structures 1 Replace with MEC2403 from 2023	MAE3401 Aerodynamics 2	Economics discipline (Compulsory – List a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	MAE2405 Aircraft performance (if not already completed in First Year) or a 6 credit point unit as directed by the Course Coordinator	MAE3405 Flight vehicle propulsion Unit title change in 2022	Economics discipline (Compulsory – List a) at Level 3	ETC2410 Introductory econometrics	
YEAR 4 Semester 1	MAE3456 Aerospace computational mechanics Replace with MEC3456 from 2023	MAE3404 Flight vehicle dynamics	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	MAE3426 Computer- aided design	MAE3408 Aerospace control	ECC3690 International economics (Capstone)	Commerce elective	
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	Commerce elective	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MAE4410 Flight vehicle design Semester 1 offering from 2023	MAE4408 Damage tolerance and airworthiness	Commerce elective	



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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Aerospace engineering and Mathematical economics and econometrics

	Bachelor of Aerospace	e Engineering (Honours)	Bachelor of l	Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter <b>or</b> ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	MEC2401 Dynamics 1	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	If two foundation units are required then overload is required for PHS 1080 Foundation physics  *This unit is replaced by PHS 1001 Foundation physics from 2018
YEAR 2 Semester 2	MAE2404 Aerodynamics 1	MAE2402 Thermodynamics and heat transfer Unit title change in 2021	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	MAE2401 Aircraft structures 1 Replace with MEC2403 from 2023	MAE3401 Aerodynamics 2	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	MAE2405 Aircraft performance (if not already completed in First Year) or a 6 credit point unit as directed by the Course Coordinator	MAE3405 Flight vehicle propulsion Unit title change in 2022	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 3	
YEAR 4 Semester 1	MAE3456 Aerospace computational mechanics Replace with MEC3456 from 2023	MAE3404 Flight vehicle dynamics	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	MAE3426 Computer- aided design	MAE3408 Aerospace control	ECC3840 Mathematical economics	Commerce elective	
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	Commerce elective	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MAE4410 Flight vehicle design Semester 1 offering from 2023	MAE4408 Damage tolerance and airworthiness	ETC3400 Principles of econometrics (capstone)	



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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Chemical engineering and Actuarial science

	Bachelor of Chemica	Engineering (Honours)	Bachelor of A	ctuarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	CHM1011 chemistry 1 or CHM1051 Chemistry 1 advanced	CHE2161 Mechanics of fluids or 6 point unit as directed by coordinator	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	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	CHE2162 Material and energy balances	ENG2005 Advanced engineering mathematics	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	CHE2164 Thermodynamics 1	CHE3167 Transport phenomena and numerical methods	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	CHE2163 Heat and mass transfer	CHE3162 Process control	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
YEAR 4 Semester 1	CHE3161 Chemistry and chemical thermodynamics	CHE3165 Separation processes	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	CHE3166 Process design	CHE3164 Reaction engineering	Actuarial science specialisation unit level 3 (list b)	Actuarial science specialisation unit level 2 (list b)	
YEAR 5 Semester 1	CHE4164 Integrated industrial project (18 points) For selected students taking a period of integrated industrial training in the first semester of their final year. This will replace the two core units below [CHE4161 and CHE4180 (or ENG4701 and ENG4702)]			ECC1000 Principles of microeconomics	
YEAR 5 Semester 1	CHE4180 Chemical engineering project Replace with ENG4701 from 2021. See footnote	CHE4162 Particle technology	CHE4161 Engineers in society	ECC1000 Principles of microeconomics	
YEAR 5 Semester 2	ENG4702 Final year project B See footnote	CHE4170 Design project (12 points)		ETC3530 Contingencies in insurance and pensions	

#### NOTE:

- From 2021, <u>ENG4701</u> and <u>ENG4702</u> 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.
- 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 <u>CPD webpage</u>

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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### **Specialisations - Chemical engineering and Finance**

	Bachelor of Chemical	Engineering (Honours)	Bachelor o	f Finance	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	CHM1011 Chemistry 1 or CHM1051 Chemistry 1 advanced	CHE2161 Mechanics of fluids or 6 point unit as directed by coordinator	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	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	CHE2162 Material and energy balances	ENG2005 Advanced engineering mathematics	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	CHE2164 Thermodynamics 1	CHE3167 Transport phenomena and numerical methods	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	CHE2163 Heat and mass transfer	CHE3162 Process control	BFC3540 Modelling in finance	BFC2751 Derivatives 1	
YEAR 4 Semester 1	CHE3161 Chemistry and chemical thermodynamics	CHE3165 Separation processes	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	CHE3166 Process design	CHE3164 Reaction engineering	BFC3240 International finance	BFC3340 Derivatives 2	
YEAR 5 Semester 1	For selected students taking a	ustrial project (18 points) period of integrated industrial training ore units below [CHE4161 and CHE	g in the first semester of their final 4180 (or ENG4701 and	BFC2240 Equities and investment analysis	
YEAR 5 Semester 1	CHE4180 Chemical engineering project (12 points) Replace with ENG4701 from 2021. See footnote	CHE4162 Particle technology	CHE4161 Engineers in society	BFC2240 Equities and investment analysis	
YEAR 5 Semester 2	ENG4702 Final year project B See footnote	CHE4170 Design project (	12 points)	BFC3999 Finance and society (capstone)	

#### 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.
- 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 <u>CPD webpage</u>

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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Chemical engineering and Economics and economic policy

	Bachelor of Chemica	Engineering (Honours)	Bachelor (	of Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter <b>or</b> ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	CHM1011 chemistry 1 or CHM1051 Chemistry 1 advanced	CHE2161 Mechanics of fluids or 6 point unit as directed by coordinator	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	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	CHE2162 Material and energy balances	ENG2005 Advanced engineering mathematics	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level 2	
YEAR 3 Semester 1	CHE2164 Thermodynamics 1	CHE3167 Transport phenomena and numerical methods	Economics discipline (Compulsory - list a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	CHE2163 Heat and mass transfer	CHE3162 Process control	Economics discipline (Compulsory – List a) at Level 3	ETC2410 Introductory econometrics	
YEAR 4 Semester 1	CHE3161 Chemistry and chemical thermodynamics	CHE3165 Separation processes	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	CHE3166 Process design	CHE3164 Reaction engineering	ECC3690 International economics (Capstone)	Commerce elective	
YEAR 5 Semester 1	CHE4164 Integrated industrial project (18 points) For selected students taking a period of integrated industrial training in the first semester of their final year. This will replace the two core units below [CHE4161 and CHE4180 (or ENG4701 and ENG4702)]			Commerce elective	
YEAR 5 Semester 1	CHE4180 Chemical engineering project Replace with ENG4701 from 2021. See footnote	CHE4162 Particle technology	CHE4161 Engineers in society	Commerce elective	
YEAR 5 Semester 2	ENG4702 Final year project B See footnote	CHE4170 Design project (	(12 points)	Commerce elective	

#### 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.
- 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 <u>CPD webpage</u>

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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Chemical engineering and Mathematical economics and econometrics

		Engineering (Honours)	Bachelor	of Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	CHM1011 chemistry 1 or CHM1051 Chemistry 1 advanced	CHE2161 Mechanics of fluids or 6 point unit as directed by coordinator	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	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	CHE2162 Material and energy balances	ENG2005 Advanced engineering mathematics	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	CHE2164 Thermodynamics 1	CHE3167 Transport phenomena and numerical methods	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	CHE2163 Heat and mass transfer	CHE3162 Process control	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 3	
YEAR 4 Semester 1	CHE3161 Chemistry and chemical thermodynamics	CHE3165 Separation processes	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	CHE3166 Process design	CHE3164 Reaction engineering	ECC3840 Mathematical economics	Commerce elective	
YEAR 5 Semester 1	CHE4164 Integrated industrial project (18 points) For selected students taking a period of integrated industrial training in the first semester of their final year. This will replace the two core units below [CHE4161 and CHE4180 (or ENG4701 and ENG4702)]			Commerce elective	
YEAR 5 Semester 1	CHE4180 Chemical engineering project Replace with ENG4701 from 2021. See footnote	CHE4162 Particle technology	CHE4161 Engineers in society	Commerce elective	
YEAR 5 Semester 2	ENG4702 Final year project B See footnote	CHE4170 Design project (12 points)		ETC3400 Principles of econometrics (capstone)	

#### 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.
- 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

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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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Civil engineering and Actuarial science

	Bachelor of Civil E	ngineering (Honours)	Bachelor of Act	uarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	CIV2225 Design of steel and timber structures Replace with CIV2235 from 2021	CIV2206 Mechanics of solids Unit title change from 2019	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	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	CIV2242 Geomechanics 1	ENG2005 Advanced engineering mathematics	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	CIV3284 Design of concrete and masonry structures Replace with CIV3294 from 2022	CIV2263 Water systems	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	CIV3247 Geomechanics 2	CIV3204 Engineering investigation See footnote	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
YEAR 4 Semester 1	CIV3285 Engineering hydrology	CIV3248 Groundwater and environmental geomechanics	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	CIV2282 Transport and traffic engineering	CIV3221 Building structures and technology	Actuarial science specialisation unit level 3 (list b)	Actuarial science specialisation unit level 2 (list b)	
YEAR 5 Semester 1	CIV4210 Project A Replace with ENG4701 from 2022. See footnote.	CIV4280 Bridge design and assessment	CIV4286 Project management for civil engineers	ECC1000 Principles of microeconomics	
YEAR 5 Semester 2	CIV4287 Road engineering Replace with ENG4702 from 2022. See footnote.	CIV4288 Water treatment	CIV4212 Civil and environmental engineering practice	ETC3530 Contingencies in insurance and pensions	

- 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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### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Civil engineering and Finance

	Bachelor of Civil E	ngineering (Honours)	Bachelor of	of Finance	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	CIV2225 Design of steel and timber structures Replace with CIV2235 from 2021	CIV2206 Mechanics of solids Unit title change from 2019	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	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	CIV2242 Geomechanics 1	ENG2005 Advanced engineering mathematics	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	CIV3284 Design of concrete and masonry structures Replace with CIV3294 from 2022	CIV2263 Water systems	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	CIV3247 Geomechanics 2	CIV3204 Engineering investigation See footnote	BFC3540 Modelling in finance	BFC2751 Derivatives 1	
YEAR 4 Semester 1	CIV3285 Engineering hydrology	CIV3248 Groundwater and environmental geomechanics	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	CIV2282 Transport and traffic engineering	CIV3221 Building structures and technology	BFC3240 International finance	BFC3340 Derivatives 2	
YEAR 5 Semester 1	CIV4210 Project A Replace with ENG4701 from 2022. See footnote.	CIV4280 Bridge design and assessment	CIV4286 Project management for civil engineers	BFC2240 Equities and investment analysis	
YEAR 5 Semester 2	CIV4287 Road engineering Replace with ENG4702 from 2022. See footnote.	CIV4288 Water treatment	CIV4212 Civil and environmental engineering practice	BFC3999 Finance and society (capstone)	

- 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 <a href="Student Services">Student Services</a> 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.



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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Civil engineering and Economics and economic policy

	Bachelor of Civil E	ngineering (Honours)	Bachelor of	Economics	]
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	CIV2225 Design of steel and timber structures Replace with CIV2235 from 2021	CIV2206 Mechanics of solids Unit title change from 2019	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	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	CIV2242 Geomechanics 1	ENG2005 Advanced engineering mathematics	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level 2	
YEAR 3 Semester 1	CIV3284 Design of concrete and masonry structures Replace with CIV3294 from 2022	CIV2263 Water systems	Economics discipline (Compulsory – List a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	CIV3247 Geomechanics 2	CIV3204 Engineering investigation See footnote	Economics discipline (Compulsory – List a) at Level 3	ETC2410 Introductory econometrics	
YEAR 4 Semester 1	CIV3285 Engineering hydrology	CIV3248 Groundwater and environmental geomechanics	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	CIV2282 Transport and traffic engineering	CIV3221 Building structures and technology	ECC3690 International economics (Capstone)	Commerce elective	
YEAR 5 Semester 1	CIV4210 Project A Replace with ENG4701 from 2022. See footnote.	CIV4280 Bridge design and assessment	CIV4286 Project management for civil engineers	Commerce elective	
YEAR 5 Semester 2	CIV4287 Road engineering Replace with <u>ENG4702</u> from 2022. See footnote.	CIV4288 Water treatment	CIV4212 Civil and environmental engineering practice	Commerce elective	

- 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 <a href="Student Services">Student Services</a> 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



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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Civil engineering and Mathematical economics and econometrics

	Bachelor of Civil E	Ingineering (Honours)	Bachelor of	Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	CIV2225 Design of steel and timber structures Replace with CIV2235 from 2021	CIV2206 Mechanics of solids Unit title change from 2019	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	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	CIV2242 Geomechanics 1	ENG2005 Advanced engineering mathematics	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	CIV3284 Design of concrete and masonry structures Replace with CIV3294 from 2022	CIV2263 Water systems	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	CIV3247 Geomechanics 2	CIV3204 Engineering investigation See footnote	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 3	
YEAR 4 Semester 1	CIV3285 Engineering hydrology	CIV3248 Groundwater and environmental geomechanics	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	CIV2282 Transport and traffic engineering	CIV3221 Building structures and technology	ECC3840 Mathematical economics	Commerce elective	
YEAR 5 Semester 1	CIV4210 Project A Replace with ENG4701 from 2022. See footnote.	CIV4280 Bridge design and assessment	CIV4286Project management for civil engineers	Commerce elective	
YEAR 5 Semester 2	CIV4287 Road engineering Replace with ENG4702 from 2022. See footnote.	CIV4288 Water Treatment	CIV4212 Civil and environmental engineering practice	ETC3400 Principles of econometrics (capstone)	

- 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 <a href="Student Services">Student Services</a> 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



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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Electrical and computer systems engineering and Actuarial science

	Bachelor of Electrical an Engineering		Bachelor of A	Actuarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	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	ECE2191 Probability models in engineering	ECE2072 Digital systems	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	ECE3073 Computer systems	ECE2131 Electrical circuits	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics Replace ECE3121 with ECE3122 in 2024	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
YEAR 4 Semester 1	ECE3161 Analogue electronics	ECE3141 Information and networks	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	ECE3051 Electrical energy systems*	ECE3091 Engineering design Replace with ECE4191 from 2022. See footnote	Actuarial science specialisation unit level 3 (list b)	Actuarial science specialisation unit level 2 (list b)	
YEAR 5 Semester 1	ECE4094 Project A Replace with ENG4701 from 2021/22	Level 4 or 5 ECE- coded core elective	Level 4 or 5 ECE- coded core elective	ECC1000 Principles of microeconomics	
YEAR 5 Semester 2	ECE4095 Project B Replace with ENG4702 from 2022	ECE4099 Professional practice	ECE4132 Control systems design**	ETC3530 Contingencies in insurance and pensions	

<sup>\*</sup> 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.

<sup>\*\*</sup> This unit replaces ECE3132 Control systems design



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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Electrical and computer systems engineering and Finance

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelor of Finance		
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	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	ECE2191 Probability models in engineering	ECE2072 Digital systems	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	ECE3073 Computer systems	ECE2131 Electrical circuits	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics Replace ECE3121 with ECE3122 in 2024	BFC3540 Modelling in finance	BFC2751 Derivatives 1	
YEAR 4 Semester 1	ECE3161 Analogue electronics	ECE3141 Information and networks	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	ECE3051 Electrical energy systems*	ECE3091 Engineering design Replace with ECE4191 from 2022. See footnote	BFC3240 International finance	BFC3340 Derivatives 2	
YEAR 5 Semester 1	ECE4094 Project A Replace with ENG4701 from 2021/22	Level 4 or 5 ECE- coded core elective	Level 4 or 5 ECE- coded core elective	BFC2240 Equities and investment analysis	
YEAR 5 Semester 2	ECE4095 Project B Replace with ENG4702 from 2022	ECE4099 Professional practice	ECE4132 Control systems design**	BFC3999 Finance and society (capstone)	

<sup>\*</sup> 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.

<sup>\*\*</sup> This unit replaces ECE3132 Control systems design



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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Electrical and computer systems engineering and Economics and economic policy

	Bachelor of Electrical an Engineering (		Bachelor	Bachelor of Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	If two foundation units are required then overload is required for PHS1080 Foundation physic:  *This unit is replaced by PHS1001 Foundation physics from 2018
YEAR 2 Semester 2	ECE2191 Probability models in engineering	ECE2072 Digital systems	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level 2	
YEAR 3 Semester 1	ECE3073 Computer systems	ECE2131 Electrical circuits	Economics discipline (Compulsory – List a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics Replace ECE3121 with ECE3122 in 2024	Economics discipline (Compulsory – List a) at Level 3	ETC2410 Introductory econometrics	
YEAR 4 Semester 1	ECE3161 Analogue electronics	ECE3141 Information and networks	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	ECE3051 Electrical energy systems*	ECE3091 Engineering design Replace with ECE4191 from 2022. See footnote	ECC3690 International economics (Capstone)	Commerce elective	
YEAR 5 Semester 1	ECE4094 Project A Replace with ENG4701 from 2021/22	Level 4 or 5 ECE- coded core elective	Level 4 or 5 ECE- coded core elective	Commerce elective	
YEAR 5 Semester 2	ECE4095 Project B Replace with ENG4702 from 2022	ECE4099 Professional practice	ECE4132 Control systems design**	Commerce elective	

<sup>\*</sup> 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.

All Bachelor of Engineering (Honours) students are required to complete Continuous Professional Development (CPD) in order to graduate. For CPD advice, refer to the CPD webpage

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<sup>\*\*</sup> This unit replaces ECE3132 Control systems design



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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

# Specialisations - Electrical and computer systems engineering and Mathematical Economics and econometrics

	Bachelor of Electrical and Computer Systems Engineering (Honours)		Bachelor	of Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ENG2005 Advanced engineering mathematics	ECE2071 Computer organisation and programming	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	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	ECE2191 Probability models in engineering	ECE2072 Digital systems	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	ECE3073 Computer systems	ECE2131 Electrical circuits	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	ECE2111 Signals and systems	ECE3121 Engineering electromagnetics Replace ECE3121 with ECE3122 in 2024	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 3	
YEAR 4 Semester 1	ECE3161 Analogue electronics	ECE3141 Information and networks	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	ECE3051 Electrical energy systems*	ECE3091 Engineering design Replace with ECE4191 from 2022. See footnote	ECC3840 Mathematical economics	Commerce elective	
YEAR 5 Semester 1	ECE4094 Project A Replace with ENG4701 from 2021/22	Level 4 or 5 ECE- coded core elective	Level 4 or 5 ECE- coded core elective	Commerce elective	
YEAR 5 Semester 2	ECE4095 Project B Replace with ENG4702 from 2022	ECE4099 Professional practice	ECE4132 Control systems design**	ETC3400 Principles of econometrics (capstone)	

<sup>\*</sup> 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.

<sup>\*\*</sup> This unit replaces ECE3132 Control systems design



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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Environmental engineering and Actuarial science

	Bachelor of Environmenta	Engineering (Honours)	Bachelor of Ad	tuarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	ECC2800 Prosperity, poverty and sustainability in a globalised world	BIO2011 Ecology and biodiversity	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	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	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	ENE3048 Energy and the environment Replaced by ENE2021 from 2019	CIV2263 Water systems	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	Environmental engineering technical elective at level 4	ENE2503 Materials properties and recycling	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
YEAR 4 Semester 1	CIV3248 Groundwater and environmental geomechanics	CHE2164 Thermodynamics 1	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	ENE3606 The air environment	CIV3285 Engineering hydrology Semester 1 offering from 2019	Actuarial science specialisation unit level 3 (list b)	Actuarial science specialisation unit level 2 (list b)	
YEAR 5 Semester 1	Streams: Geomechanics, Transport, Water management CIV4210 Project A Replace with ENG4701 from 2022. See footnote.	BTX3100 Sustainability regulation for business	ENE3608 Environmental impact assessment and management systems Replace with ENE4042 from 2020	ECC1000 Principles of microeconomics	
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	CIV4286 Project management for civil engineers	ETC3530 Contingencies in insurance and pensions	
		Sustainable processing stream:	CHE4170 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 <a href="Student Services">Student Services</a> 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 <a href="CPD">CPD</a> webpage.
- · For enrolment advice, please refer to the Course Advisers webpage.

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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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Environmental engineering and Finance

	Bachelor of Environmenta	I Engineering (Honours)	Bachelor o	f Finance	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ECC2800 Prosperity, poverty and sustainability in a globalised world	BIO2011 Ecology and biodiversity	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	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	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	ENE3048 Energy and the environment Replaced by ENE2021 from 2019	CIV2263 Water systems	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	Environmental engineering technical elective See footnote	ENE2503 Materials properties and recycling	BFC3540 Modelling in finance	BFC2751 Derivatives	
YEAR 4 Semester 1	CIV3248 Groundwater and environmental geomechanics	CHE2164 Thermodynamics 1	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	ENE3606 The air environment	CIV3285 Engineering hydrology Semester 1 offering from 2019	BFC3240 International finance	BFC3340 Derivatives 2	
YEAR 5 Semester 1	Streams: Geomechanics, Transport, Water management CIV4210 Project A Replace with ENG4701 from 2022. See foolnote.	BTX3100 Sustainability regulation for business	ENE3608 Environmental impact assessment and management systems Replace with ENE4042 from 2020	BFC2240 Equities and investment analysis	
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 Sustainable processing stream:	CIV4286 Project management for civil engineers	BFC3999 Finance and society (capstone)	
Noto:		CHE4170 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 <a href="CPD">CPD</a> webpage.
- · For enrolment advice, please refer to the Course Advisers webpage.

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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 <u>Handbook</u>. The map is subject to updates. Update version: 18 December 2023

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Environmental engineering and Economics and economic policy

	Bachelor of Environmenta	al Engineering (Honours)	Bachelor of E	Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ECC2800 Prosperity, poverty and sustainability in a globalised world	BIO2011 Ecology and biodiversity	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	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	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level 2	
YEAR 3 Semester 1	ENE3048 Energy and the environment Replaced by ENE2021 from 2019	CIV2263 Water systems	Economics discipline (Compulsory – List a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	Environmental engineering technical elective See footnote	ENE2503 Materials properties and recycling	Economics discipline (Compulsory – List a) at Level 3	ETC2410 Introductory econometrics	
YEAR 4 Semester 1	CIV3248 Groundwater and environmental geomechanics	CHE2164 Thermodynamics 1	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	ENE3606 The air environment	CIV3285 Engineering hydrology Semester 1 offering from 2019	ECC3690 International economics (Capstone)	Commerce elective	
YEAR 5 Semester 1	Streams: Geomechanics, Transport, Water management CIV4210 Project A Replace with ENG4701 from 2022. See footnote.	BTX3100 Sustainability regulation for business	ENE3608 Environmental impact assessment and management systems Replace with ENE4042 from 2020	Commerce elective	
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	CIV4286 Project management for civil engineers	Commerce elective	
Ni-t-	TOOLITOIG.	Sustainable processing stream: (	CHE4170 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 <a href="Student Services">Student Services</a> 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 <u>CPD</u> webpage.
- · For enrolment advice, please refer to the Course Advisers webpage.

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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 <a href="Handbook">Handbook</a>. The map is subject to updates. Update version: 18 December 2023

### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Environmental engineering and Mathematical economics and econometrics

	Bachelor of Environmenta	I Engineering (Honours)	Bachelor of	Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ECC2800 Prosperity, poverty and sustainability in a globalised world	BIO2011 Ecology and biodiversity	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	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	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	ENE3048 Energy and the environment Replaced by ENE2021 from 2019	CIV2263 Water systems	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	Environmental engineering technical elective See footnote	ENE2503 Materials properties and recycling	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 3	
YEAR 4 Semester 1	CIV3248 Groundwater and environmental geomechanics	CHE2164 Thermodynamics 1	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	ENE3606 The air environment	CIV3285 Engineering hydrology Semester 1 offering from 2019	ECC3840 Mathematical economics	Commerce elective	
YEAR 5 Semester 1	Streams: Geomechanics, Transport, Water management CIV4210 Project A Replace with ENG4701 from 2022. See footnote.	BTX3100 Sustainability regulation for business	ENE3608 Environmental impact assessment and management systems Replace with ENE4042 from 2020	Commerce elective	
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	CIV4286 Project management for civil engineers	ETC3400 Principles of econometrics (capstone)	
	iootiiote.	Sustainable processing stream:	CHE4170 Design project		

- 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 <a href="Student Services">Student Services</a> 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 <a href="CPD">CPD</a> webpage
- · For enrolment advice, please refer to the Course Advisers webpage.



This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It should be used in conjunction with the requirements of the course as specified in the <a href="Handbook">Handbook</a>. The map is subject to updates. Update version: 18 December 2023

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Materials engineering and Actuarial science

	Bachelor of Materials	Engineering (Honours)	Bachelor of Ac	tuarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	MTE2541 Crystal structures, thermodynamics and phase equilibria See footnote 1	MTE2544 Functional materials Replace with MTE2202 from 2021 (Semester 2 offering)	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	If two foundation unit are required then overload is required PHS1080 Foundatio physics **This unit is replaced by PH. Foundation physics from 20
YEAR 2 Semester 2	MTE2542 Microstructural development Replace with MTE2102 from 2021 (Semester 1 offering).	ENG2005 Advanced engineering maths	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	MTE3541 Materials durability Replace with MTE3103 from 2022	MTE2546 Mechanics of materials Replace with MTE2103 from 2021	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	MTE3545 Functional materials and devices Replace with MTE3202 from 2022	MTE2545 Polymers and ceramics 1 See footnote 2	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
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	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	MTE3547 Materials characterisation and modelling See footnote 1	MTE3546 Polymers and ceramics 2 Replace with MTE3102 from 2022	Actuarial science specialisation unit level 3 (list b)	Actuarial science specialisation unit level 2 (list b)	
YEAR 5 Semester 1	MTE4525 Project 1 Replace with ENG4701 from 2021/22	MTE4571 Materials engineering design and practice See footnote 3	MTE4572 Polymer and composite processing and engineering See footnote 3	ECC1000 Principles of microeconomics	
YEAR 5 Semester 2	MTE4526 Project 2 Replace with ENG4702 from 2022	Level 4 or 5 MTE-coded materials engineering core elective	MTE4573 Processing and engineering of metals and ceramics See footnote 3	ETC3530 Contingencies in insurance and pensions	
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#### Note:

- MINORS AND ELECTIVES LIST is located on the Faculty's current student course information webpage.
- 1. 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.
- 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.
- All Bachelor of Engineering (Honours) students are required to complete Continuous Professional Development (CPD) 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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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

### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Materials engineering and Finance

	Bachelor of Materials I	Engineering (Honours)	Bachelor	of Finance	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of Microeconomics	
YEAR 2 Semester 1	MTE2541 Crystal structures, thermodynamics and phase equilibria See footnote 1	MTE2544 Functional materials Replace with MTE2202 from 2021 (Semester 2 offering)	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	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	MTE2542 Microstructural development Replace with MTE2102 from 2021 (Semester 1 offering)	ENG2005 Advanced engineering maths	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	MTE3541 Materials durability Replace with MTE3103 from 2022.	MTE2546 Mechanics of materials Replace with MTE2103 from 2021	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	MTE3545 Functional materials and devices Replace with MTE3202 from 2022.	MTE2545 Polymers and ceramics 1 See footnote 2	BFC3540 Modelling in finance	BFC2751 Derivatives 1	
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	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	MTE3547 Materials characterisation and modelling See footnote 1	MTE3546 Polymers and ceramics 2 Replace with MTE3102 from 2022	BFC3240 International finance	BFC3340 Derivatives 2	
YEAR 5 Semester 1	MTE4525 Project 1 Replace with ENG4701 from 2021/22	MTE4571 Materials engineering design and practice See footnote 3	MTE4572 Polymer and composite processing and engineering See footnote 3	BFC2240 Equities and investment analysis	
YEAR 5 Semester 2	MTE4526 Project 2 Replace with ENG4702 from 2022	Level 4 or 5 MTE-coded materials engineering core elective	MTE4573 Processing and engineering of metals and ceramics See footnote 3	BFC3999 Finance and society (capstone)	

- MINORS AND ELECTIVES LIST is located on the Faculty's current student course information webpage.
- 1. 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)
- · 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.
- All Bachelor of Engineering (Honours) students are required to complete Continuous Professional Development (CPD) in order to graduate. For CPD advice, refer to the CPD
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### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

### Specialisations - Materials engineering and Economics and economic policy

	Bachelor of Materials E	ngineering (Honours)	Bachelor of I	Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	MTE2541 Crystal structures, thermodynamics and phase equilibria See footnote 1	MTE2544 Functional materials Replace with MTE2202 from 2021 (Semester 2 offering)	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	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	MTE2542 Microstructural development Replace with MTE2102 from 2021 (Semester 1 offering).	ENG2005 Advanced engineering maths	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level 2	
YEAR 3 Semester 1	MTE3541 Materials durability Replace with MTE3103 from 2022.	MTE2546 Mechanics of materials Replace with MTE2103 from 2021	Economics discipline (Compulsory – List a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	MTE3545 Functional materials and devices Replace with MTE3202 from 2022.	MTE2545 Polymers and ceramics 1 See footnote 2	Economics discipline (Compulsory – List a) at Level 3	ETC2410 Introductory econometrics	
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	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	MTE3547 Materials characterisation and modelling See footnote 1	MTE3546 Polymers and ceramics 2 Replace with MTE3102 from 2022.	ECC3690 International economics (Capstone)	Commerce elective	
YEAR 5 Semester 1	MTE4525 Project 1 Replace with ENG4701 from 2021/22	MTE4571 Materials engineering design and practice See footnote 3	MTE4572 Polymer and composite processing and engineering See footnote 3	Commerce elective	
YEAR 5 Semester 2	MTE4526 Project 2 Replace with ENG4702 from 2022	Level 4 or 5 MTE-coded materials engineering core elective	MTE4573 Processing and engineering of metals and ceramics See footnote 3	Commerce elective	

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- 3. You must complete the (MTE3543+MTE4571+MTE4572+MTE4573) combination (last offerings 2022). Otherwise, complete (MTE3201+MTE4101+MTE4102+MTE4201) combination.
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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Materials engineering and Mathematical economics and econometrics

	Bachelor of Materials E	ingineering (Honours)	Bachelor of E	conomics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	MTE2541 Crystal structures, thermodynamics and phase equilibria See footnote 1	MTE2544 Functional materials Replace with MTE2202 from 2021 (Semester 2 offering)	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	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	MTE2542 Microstructural development Replace with <u>MTE2102</u> from 2021 (Semester 1 offering)	ENG2005 Advanced engineering maths	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	MTE3541 Materials durability Replace with MTE3103 from 2022.	MTE2546 Mechanics of materials Replace with MTE2103 from 2021	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	MTE3545 Functional materials and devices Replace with MTE3202 from 2022.	MTE2545 Polymers and ceramics 1 See footnote 2	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 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	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	MTE3547 Materials characterisation and modelling See footnote 1	MTE3546 Polymers and ceramics 2 Replace with MTE3102 from 2022.	ECC3840 Mathematical economics	Commerce elective	
YEAR 5 Semester 1	MTE4525 Project 1 Replace with ENG4701 from 2021/22	MTE4571 Materials engineering design and practice See footnote 3	MTE4572 Polymer and composite processing and engineering See footnote 3	Commerce elective	
YEAR 5 Semester 2	MTE4526 Project 2 Replace with ENG4702 from 2022	Level 4 or 5 MTE-coded materials engineering core elective	MTE4573 Processing and engineering of metals and ceramics See footnote 3	ETC3400 Principles of econometrics (capstone)	

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- 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.
- All Bachelor of Engineering (Honours) students are required to complete Continuous Professional Development (CPD) in order to graduate. For CPD advice, refer to the CPD
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### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Mechanical engineering and Actuarial science

		nanical Engineering nours)	Bachelor of A	ctuarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	MEC2403 Mechanics of materials	MEC2401 Dynamics 1	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	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	MEC2404 Mechanics of fluids	ENG2005 Advanced engineering mathematics	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	MEC2402 Engineering design 1 Unit title change in 2021	MEC3456 Engineering computational mechanics	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	MEC3457 Systems and control	MEC2405 Thermodynamics	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
YEAR 4 Semester 1	MEC3455 Solid mechanics	MEC3451 Fluid mechanics 2	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	MEC3453 Dynamics 2	MEC3416 Engineering design 2 Unit title change in 2021	Actuarial science specialisation unit level 3 (list b)	Actuarial science specialisation unit level 2 (list b)	
YEAR 5 Semester 1	MEC4401 Final year project Replace with ENG4701 from 2021/22	MEC4404 Professional Practice	MEC4408 Thermodynamics and heat transfer	ECC1000 Principles of microeconomics	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MEC4407 Engineering design 3 Unit title change from 2021	MEC4426 Computer- aided design	ETC3530 Contingencies in insurance and pensions	



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## **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Mechanical engineering and Finance

		al Engineering (Honours)	Bachelor (	of Finance	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	MEC2403 Mechanics of materials	MEC2401 Dynamics 1	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	If two foundation units are required then overload is required for PHS1080 Foundation physic *This unit is replaced by PHS1001 Foundation physics from 2018\$
YEAR 2 Semester 2	MEC2404 Mechanics of fluids	ENG2005 Advanced engineering mathematics	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	MEC2402 Engineering design 1 Unit title change in 2021	MEC3456 Engineering computational mechanics	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	MEC3457 Systems and control	MEC2405 Thermodynamics	BFC3540 Modelling in finance	BFC2751 Derivatives 1	
YEAR 4 Semester 1	MEC3455 Solid mechanics	MEC3451 Fluid mechanics 2	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	MEC3453 Dynamics 2	MEC3416 Engineering design 2 Unit title change in 2021	BFC3240 International finance	BFC3340 Derivatives 2	
YEAR 5 Semester 1	MEC4401 Final year project Replace with ENG4701 from 2021/22	MEC4404 Professional Practice	MEC4408 Thermodynamics and heat transfer	BFC2240 Equities and investment analysis	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MEC4407 Engineering design 3 Unit title change from 2021	MEC4426 Computer- aided design	BFC3999 Finance and society (capstone)	



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 <a href="Handbook">Handbook</a>. The map is subject to updates. Update version: 18 December 2023

### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

### Specialisations - Mechanical engineering and Economics and economic policy

	(Ho	nanical Engineering nours)	Bachelor o	of Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	MEC2403 Mechanics of materials	MEC2401 Dynamics 1	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	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	MEC2404 Mechanics of fluids	ENG2005 Advanced engineering mathematics	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level 2	
YEAR 3 Semester 1	MEC2402 Engineering design 1 Unit title change in 2021	MEC3456 Engineering computational mechanics	Economics discipline (Compulsory – List a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	MEC3457 Systems and control	MEC2405 Thermodynamics	Economics discipline (Compulsory – List a) at Level 3	ETC2410 Introductory econometrics	
YEAR 4 Semester 1	MEC3455 Solid mechanics	MEC3451 Fluid mechanics 2	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	MEC3453 Dynamics 2	MEC3416 Engineering design 2 Unit title change in 2021	ECC3690 International economics (Capstone)	Commerce elective	
YEAR 5 Semester 1	MEC4401 Final year project Replace with ENG4701 from 2021/22	MEC4404 Professional Practice	MEC4408 Thermodynamics and heat transfer	Commerce elective	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MEC4407 Engineering design 3 Unit title change from 2021	MEC4426 Computer- aided design	Commerce elective	



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### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Mechanical engineering and Mathematical Economics and econometrics

	(Ho	nanical Engineering nours)	Bachelor	of Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	MEC2403 Mechanics of materials	MEC2401 Dynamics 1	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	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	MEC2404 Mechanics of fluids	ENG2005 Advanced engineering mathematics	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	MEC2402 Engineering design 1 Unit title change in 2021	MEC3456 Engineering computational mechanics	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	MEC3457 Systems and control	MEC2405 Thermodynamics	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 3	
YEAR 4 Semester 1	MEC3455 Solid mechanics	MEC3451 Fluid mechanics 2	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	MEC3453 Dynamics 2	MEC3416 Engineering design 2 Unit title change in 2021	ECC3840 Mathematical economics	Commerce elective	
YEAR 5 Semester 1	MEC4401 Final year project Replace with ENG4701 from 2021/22	MEC4404 Professional Practice	MEC4408 Thermodynamics and heat transfer	Commerce elective	
YEAR 5 Semester 2	MEC4402 Final year project – Thesis Replace with ENG4702 from 2022	MEC4407 Engineering design 3 Unit title change from 2021	MEC4426 Computer- aided design	ETC3400 Principles of econometrics (capstone)	



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### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Mechatronics engineering and Actuarial science

	Bachelor of Mechat (Hon		Bachelor of A	ctuarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	ECE2071 Computer organisation and programming	ECE2131 Electrical circuits	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	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	TRC2201 Mechanics	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	TRC3200 Dynamical systems	MEC2402 Engineering design 1 Unit title change in 2021	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	ECE3161 Analogue electronics	TRC2001 Introduction to systems engineering	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
YEAR 4 Semester 1	TRC3802 Thermo-fluids and power systems Unit is re-coded TRC4802 from 2018	TRC3500 Sensors and artificial perception	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	TRC3600 Modelling and control	TRC3000 Mechatronics project 2	Actuarial science specialisation unit level 3 (list b)	Actuarial science specialisation unit level 2 (list b	
YEAR 5 Semester 1	TRC4000 Mechatronics final year project 1 Replace with ENG4701 from 2021/22	TRC4800 Robotics	MEC4418 Control systems This unit is not offered in 2019 and is replaced by ECE3141 Information and networks	ECC1000 Principles of microeconomics	
YEAR 5 Semester 2	TRC4001 Mechatronics final year project 2 Replace with ENG4702 from 2022	TRC4902 Mechatronics and manufacturing	TRC4002 Professional practice	ETC3530 Contingencies in insurance and pensions	



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### **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Mechatronics engineering and Finance

	Bachelor of Mechatronics Engineering (Honours)		Bachelor o	Bachelor of Finance	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ECE2071 Computer organisation and programming	ECE2131 Electrical circuits	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	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	TRC2201 Mechanics	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	TRC3200 Dynamical systems	MEC2402 Engineering design 1 Unit title change in 2021	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	ECE3161 Analogue electronics	TRC2001 Introduction to systems engineering	BFC3540 Modelling in finance	BFC2751 Derivatives 1	
YEAR 4 Semester 1	TRC3802 Thermo-fluids and power systems Unit is re-coded TRC4802 from 2018	TRC3500 Sensors and artificial perception	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	TRC3600 Modelling and control	TRC3000 Mechatronics project 2	BFC3240 International finance	BFC3340 Derivatives 2	
YEAR 5 Semester 1	TRC4000 Mechatronics final year project 1 Replace with ENG4701 from 2021/22	TRC4800 Robotics	MEC4418 Control systems This unit is not offered in 2019 and is replaced by ECE3141 Information and networks	BFC2240 Equities and investment analysis	
YEAR 5 Semester 2	TRC4001 Mechatronics final year project 2 Replace with ENG4702 from 2022	TRC4902 Mechatronics and manufacturing	TRC4002 Professional practice	BFC3999 Finance and society (capstone)	



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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Mechatronics engineering and Economics and economic policy

	Bachelor of Mechat (Hono		Bachelor of	Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ECE2071 Computer organisation and programming	ECE2131 Electrical circuits	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	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	TRC2201 Mechanics	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level	priysics j.cm. 2020
YEAR 3 Semester 1	TRC3200 Dynamical systems	MEC2402 Engineering design 1 Unit title change in 2021	Economics discipline (Compulsory – List a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	ECE3161 Analogue electronics	TRC2001 Introduction to systems engineering	Economics discipline (Compulsory – List a) at Level 3	2ETC2410 Introductory econometrics	
YEAR 4 Semester 1	TRC3802 Thermo-fluids and power systems Unit is re-coded TRC4802 from 2018	TRC3500 Sensors and artificial perception	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	TRC3600 Modelling and control	TRC3000 Mechatronics project 2	ECC3690 International economics (Capstone)	Commerce elective	
YEAR 5 Semester 1	TRC4000 Mechatronics final year project 1 Replace with ENG4701 from 2021/22	TRC4800 Robotics	MEC4418 Control systems This unit is not offered in 2019 and is replaced by ECE3141 Information and networks	Commerce elective	
YEAR 5 Semester 2	TRC4001 Mechatronics final year project 2 Replace with ENG4702 from 2022	TRC4902 Mechatronics and manufacturing	TRC4002 Professional practice	Commerce elective	



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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Mechatronics engineering and Mathematical economics and econometrics

	Bachelor of Mechatronics Engineering (Honours)		Bachelor of	Bachelor of Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	ECE2071 Computer organisation and programming	ECE2131 Electrical circuits	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	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	TRC2201 Mechanics	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	TRC3200 Dynamical systems	MEC2402 Engineering design 1 Unit title change in 2021	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	ECE3161 Analogue electronics	TRC2001 Introduction to systems engineering	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 3	
YEAR 4 Semester 1	TRC3802 Thermo-fluids and power systems Unit is re-coded TRC4802 from 2018	TRC3500 Sensors and artificial perception	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	TRC3600 Modelling and control	TRC3000 Mechatronics project 2	ECC3840 Mathematical economics	Commerce elective	
YEAR 5 Semester 1	TRC4000 Mechatronics final year project 1 Replace with ENG4701 from 2021/22	TRC4800 Robotics	MEC4418 Control systems This unit is not offered in 2019 and is replaced by ECE3141 Information and networks	Commerce elective	
YEAR 5 Semester 2	TRC4001 Mechatronics final year project 2 Replace with ENG4702 from 2022	TRC4902 Mechatronics and manufacturing	TRC4002 Professional practice	ETC3400 Principles of econometrics (capstone)	



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## **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Software engineering and Actuarial science

		Engineering (Honours)	Bachelor of A	ctuarial Science	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ETC2410 Introductory econometrics	
YEAR 2 Semester 1	FIT2085 Introduction to computer science	MAT1830 Discrete mathematics for computer science	ETC2430 Applied stochastic modelling	ECC1100 Principles of macroeconomics	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	FIT2004 Algorithms and data structures	FIT2101 Software engineering process and management	BFC2140 Corporate finance 1	ETC2420 Statistical methods in insurance	
YEAR 3 Semester 1	FIT3159 Computer architecture	FIT2O99 Object oriented design and implementation	BFC2000 Financial institutions and markets	ETC2440 Mathematics for economics and business	
YEAR 3 Semester 2	FIT2100 Operating systems	FIT2107 Software quality testing	Actuarial science specialisation unit level 3 (list b)	ACC1100 Introduction to financial accounting	
YEAR 4 Semester 1		FIT3077 Software engineering: architecture and design	BFC2340 Debt markets and fixed income securities	Actuarial science specialisation unit level 3 (list b)	
YEAR 4 Semester 2	FIT3170 Software engineering practice	FIT3171 Databases	Actuarial science specialisation unit level 3 (list b)Actuarial science specialisation unit level	Actuarial science specialisation unit level 2 (list b)	
YEAR 5 Semester 1	FIT4002 Software engineering industry	FIT4003 Software engineering research project Replace with <u>FIT4701</u> from 2023	FIT4165 Computer networks	ECC1000 Principles of microeconomics	
YEAR 5 Semester 2	experience studio project	Replace with FIT4702 from 2023	Software engineering technical elective at level 4 or 5	ETC3530 Contingencies in insurance and pensions	



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## **E3003** Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Software engineering and Finance

	Bachelor of Software	Engineering (Honours)	Bachelor	of Finance	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	FIT2085 Introduction to computer science	MAT1830 Discrete mathematics for computer science	BFC1001 Foundations of finance	ECC1100 Principles of macroeconomics	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	FIT2004 Algorithms and data structures	FIT2101 Software engineering process and management	ETC2410 Introductory econometrics	BFC2140 Corporate finance 1	
YEAR 3 Semester 1	FIT3159 Computer architecture	FIT2O99 Object oriented design and implementation	ACC1100 Introduction to financial accounting or ACC1200 Accounting for managers	BFC3140 Corporate finance 2	
YEAR 3 Semester 2	FIT2100 Operating systems	FIT2107 Software quality testing	BFC3540 Modelling in finance	BFC2751 Derivatives 1	
YEAR 4 Semester 1	FIT3170 Software	FIT3077 Software engineering: architecture and design	BFC2340 Debt markets and fixed income securities	ETC3460 Financial econometrics	
YEAR 4 Semester 2	engineering practice	FIT3171 Databases	BFC3240 International finance	BFC3340 Derivatives 2	
YEAR 5 Semester 1	FIT4002 Software engineering industry	FIT4003 Software engineering research project Replace with <u>FIT4701</u> from 2023	FIT4165 Computer networks	BFC2240 Equities and investment analysis	
YEAR 5 Semester 2	experience studio project	Replace with <u>FIT4702</u> from 2023	Software engineering technical elective at level 4 or 5	BFC3999 Finance and society (capstone)	



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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Software engineering and Economics and economic policy

		Engineering (Honours)	Bachelor of E	Conomics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	FIT2085 Introduction to computer science	MAT1830 Discrete mathematics for computer science	ECC1100 Principles of macroeconomics	ECC2000 Intermediate microeconomics	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	FIT2004 Algorithms and data structures	FIT2101 Software engineering process and management	ECC2010 Intermediate macroeconomics	Economics discipline (Compulsory - list b or a) at Level 2	
YEAR 3 Semester 1	FIT3159 Computer architecture	FIT2O99 Object oriented design and implementation	Economics discipline (Compulsory – List a) at Level 3	Economics discipline (Compulsory - list b or a) at Level 2/3	
YEAR 3 Semester 2	FIT2100 Operating systems	FIT2107 Software quality testing	Economics discipline (Compulsory – List a) at Level 3	ETC2410 Introductory econometrics	
YEAR 4 Semester 1	FIT3170 Software	FIT3077 Software engineering: architecture and design	Economics discipline (Compulsory – List a) at Level 3	Commerce elective	
YEAR 4 Semester 2	engineering practice	FIT3171 Databases	ECC3690 International economics (Capstone)	Commerce elective	
YEAR 5 Semester 1	FIT4002 Software engineering industry	FIT4003 Software engineering research project Replace with FIT4701 from 2023	FIT4165 Computer networks	Commerce elective	
YEAR 5 Semester 2	experience studio project	Replace with <u>FIT4702</u> from 2023	Software engineering technical elective at level 4 or 5	Commerce elective	



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### E3003 Bachelor of Engineering (Honours) and Bachelor of Commerce Specialist

#### Specialisations - Software engineering and Mathematical economics and econometrics

		e Engineering (Honours)	Bachelor of	Economics	
YEAR 1 Semester 1	ENG1001 Engineering design: lighter, faster, stronger or ENG1002	ENG1003 Engineering mobile apps or ENG1005	Foundation unit or ENG1060 Computing for engineers	ETC1000 Business and economic statistics	
YEAR 1 Semester 2	ENG1002 Engineering design: cleaner, safer, smarter or ENG1001	ENG1005 Engineering mathematics or ENG1003	Engineering elective or ENG1060 Computing for engineers (if not taken in Sem 1)	ECC1000 Principles of microeconomics	
YEAR 2 Semester 1	FIT2085 Introduction to computer science	MAT1830 Discrete mathematics for computer science	ECC2000 Intermediate microeconomics	ECC1100 Principles of macroeconomics	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	FIT2004 Algorithms and data structures	FIT2101 Software engineering process and management	Economics discipline (Compulsory) at Level 2/3	ETC2410 Introductory econometrics	
YEAR 3 Semester 1	FIT3159 Computer architecture	FIT2O99 Object oriented design and implementation	Economics discipline (Compulsory) Part 1 of pair list	Economics discipline (Compulsory) at Level 2/3	
YEAR 3 Semester 2	FIT2100 Operating systems	FIT2107 Software quality testing	Economics discipline (Compulsory) Part 2 of pair list	Economics discipline (Compulsory) at Level 3	
YEAR 4 Semester 1	FIT3170 Software	FIT3077 Software engineering: architecture and design	Economics discipline (Compulsory) at Level 3	Commerce elective	
YEAR 4 Semester 2	engineering practice	FIT3171 Databases	ECC3840 Mathematical economics	Commerce elective	
YEAR 5 Semester 1	FIT4002 Software engineering industry	FIT4003 Software engineering research project Replace with FIT4701 from 2023	FIT4165 Computer networks	Commerce elective	
YEAR 5 Semester 2	experience studio project	Replace with <u>FIT4702</u> from 2023	Software engineering technical elective at level 4 or 5	ETC3400 Principles of econometrics (capstone)	