

Program Handbook 2023

Engineering

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This handbook is correct at the time of writing and may be subject to change.

Throughout your studies, to ensure you have the most up to date information, you should always consult the online version of this handbook held on the student online LMS Moodle.

For up-to-date information on University academic and student regulations always consult the Federation University Australia website.

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7 8 9 1(8. 8. 8. 8. 8. 10 10 10 10 10 10 11	Pro Cor 1 2 3 4 5 Aca Per 0.1 0.2 0.3 0.4 Ext(.1	fessional Practice for Bachelor of Engineering (Honours) Degrees	. 45 . 46 . 46 . 46 . 46 . 46 . 46 . 46 . 46
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1 Welcome to Engineering at Federation University Australia

Welcome to Federation University Australia and we hope you enjoy your time studying with us. Our engineering education is managed by the engineering discipline within the Institute of Innovation, Science and Sustainability. We aspire to offer you with a unique internationally accredited engineering curriculum in Australia, continuing our 150 years of history in providing quality teaching and research in engineering.

Our University continues to be recognised for its teaching quality in engineering. The Institute (then School) is proud of its 5-star rating



achievements, across different categories, in the 2021 Good University Guide. In the 2020 Quality Indicators for Learning and Teaching (QILT) Student Experience Survey (SES) and Employer Satisfaction Survey (ESS). These outcomes fared strongly against national benchmarks the University is ranked above national average in 5 out of 6 key indicators in the SES and ranked number one in learner engagement and skills development within Regional Universities Network (RUN).

I encourage you to explore our Institute and engage with our academic staff members to get advice on you can realise your career goals to better put in engineering applications in practice to better serve the community.

This handbook is developed by the Institute to assist students enrolled in our programs and is up to date at the time of printing. It should be read in conjunction with the most recent Federation University Australia Handbook, which contains the official University regulations pertaining to all programs offered by the University. Complete University regulations can also be found at the Federation University Australia Policy Central <u>website</u>.

I hope this handbook will be of assistance to you as you progress through the successive stages of your program. Please do not hesitate to contact your course coordinator or program coordinator if you have any queries at any stage of your program.

I wish you all the best and success with your studies and in your future career.

Associate Professor Ooi Ean Tat, PhD, MIEAus

Discipline Leader (Engineering)

Institute of Innovation Science and Sustainability



2 About your Program Handbook

The aim of this Programme Handbook is to provide you with information on the Institute of Innovation Science and Sustainability and how it supports your programme as well as other sources of important information.

This handbook aims to introduce students to the programme of study by providing a selection of information which we hope you will find useful, particularly at the start of your program. It provides an outline of the program, its ethos, structure and assessment, and the University services that are available to you. Use the guide to familiarise yourself with the program, to acquaint yourself with the program regulations, its aims, and objectives, and to establish what the learning outcomes are so that you are well prepared to tackle the requirements of the programme and the various assessments and examinations you are set.

3 Finding your way around

Federation University is regional Victoria's largest education institution, with campuses in Ballarat (Mt Helen, SMB, Camp Street, and Gillies St), Berwick, Brisbane, Gippsland, and the Wimmera. The engineering Honours programs and Master of Engineering Technology programs offered by the Institute of Innovation Science and Sustainability can be undertaken the Mt Helen (Ballarat) and Gippsland Campus (Table 1). Campus information and maps can be found out through the hyperlink in Table 1.

Program	Campus
Bachelor of Engineering (Honours)	
Civil Engineering Electrical and Information Engineering	
Mechanical Engineering Mining Engineering	
Master of Engineering Technology	Mt Helen campus (Ballarat)
Civil Engineering Mechanical Engineering Mining Engineering	
Renewable Energy and Electrical Power Systems	
Bachelor of Engineering (Honours)	
Civil Engineering Electrical and Information Engineering	
Mechatronics and Robotics Engineering	Gippsland campus
Master of Engineering Technology	
Mechatronics and Industrial Automation Engineering	

Table 1: Location of engineering Honours programs at Federation University Australia.



4 New Students, Orientation, and Important Dates

Federation University Australia has wide range of resources to get you set up and get the best start to your university journey. Details can be located <u>here</u>. Current student information can be located <u>here</u>.

Orientation is an important part of your transition into university life. You will learn how things work, meet staff, get information to help you succeed in your chosen program, make new friends, and have fun. Information about orientation can be located <u>here</u> and accessed through the <u>Orientation Hub</u> in Moodle.

The standard Federation University Australia semester and important dates are available through the website.

5 Important Contact Information

Your first point of contact, for any program related matters, is your program coordinator. The contact details can be found below.



For any student administration related matter and assistance, your first point of contact is Student HQ.



6 Program Details

6.1 Program Learning Outcomes

The Bachelor of Engineering (Honours) and Master of Engineering Technology programs at Federation University Australia aims at delivering learning experiences to develop graduates with technical knowledge and skills to commence practicing as a professional engineer.

The courses in the Bachelor of Engineering (Honours) and Master of Engineering Technology programs will develop graduates in the following key areas

Engineering Knowledge and Skill

- 1. Understand, recognise, and relate to the application of theories including both fundamental and specialist bodies of knowledge and principles underpinning fundamental and specialist bodies of knowledge in the engineering discipline
- 2. Understand and comprehensively apply relevant scientific methods, mathematics, numerical analysis, computer, and information technologies underpinning the engineering discipline
- 3. Relate and reflect on the knowledge of the context in which engineering is practiced and managed, with an emphasis on the management of quality, occupational health and safety systems, environmental impact, and sustainability issues
- 4. Research, investigate, identify, interpret, appraise, and interpret current research and development underpinning fundamental and specialist bodies of knowledge within the engineering discipline to synthesise a coherent approach to complex engineering problems
- 5. Recognise, develop, and demonstrate attributes commensurate of the role of the Professional Engineer not only in the wider multi-disciplinary context but also in shaping the social environment and its contribution to the quality of life
- 6. Recognise and evaluate the importance and integral nature in the engineering discipline on such issues as sustainability, environmental and economic awareness, risk assessment and globalization to inform professional decisions

Engineering Application

- 7. Apply competently the extensive body of fundamental and specialist knowledge underpinning the core areas of engineering; namely, engineering analysis and design, materials and management within industry, detailed engineering analysis and conceptual design
- 8. Identify and assess appropriate engineering techniques, tools and resources and comprehensively apply these to the solution of complex engineering problems
- 9. Synthesise, formulate, and develop solutions for complex or open-ended engineering problems in the design process applicable to at least one specialist body of knowledge in engineering
- 10. Apply a systems approach to the design cycle whilst considering the broad contextual constraints of complex engineering problems



11. Apply project management techniques to deliver engineering projects within specified project constraints

Professional Attributes

- 12. Recognize and demonstrate professional accountability by critically assessing and managing information, identifying ethical issues and take responsible actions in a society of diverse norms and cultures
- 13. Demonstrate a high level of competence in oral and written skills to both professional and lay domains
- 14. Contribute effectively as a team member in multidisciplinary and multicultural team environments
- 15. Embrace the leadership role and effectively lead an engineering team
- 16. Demonstrate a culture of life-long learning commensurate of the responsibilities of a Professional Engineer in professional development

The Bachelor of Engineering (Honours) and Master of Engineering Technology programs are accredited by Engineers Australia (EA) and graduates will be eligible for EA's graduate membership under the Professional Engineer occupational category. The program learning outcomes of the Bachelor of Engineering (Honours) and Master of Engineering Technology programs are aligned with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping of the program learning outcomes of Bachelor of Engineering (Honours) and Master of Engineering Technology are presented in Figure 1.



		Engineers Australia (EA) Mapping of Program Learning Outcor	nes	-														
		Bachelor of Engineering (Honours) Master of Engineering Tech	nolog	ŝy														
	Kn	owl	edg Ba	e an se	d SI	kill	Er A	ngin ppli Ab	eeri catio ility	ng on	Professional and Personal Attributes					5		
	1.1	1.2	1.5	1.4	1.5	1.0	2.1	2.2	2.3	Z.4	5.1	3.2	3.3	5.4 3	.5 5.0	D		
	1	both fundamental and specialist bodies of knowledge and principles underpinning fundamental and specialist bodies of knowledge in the engineering discipline	~		~													
	2	Understand and comprehensively apply relevant scientific methods, mathematics, numerical analysis, computer and information technologies underpinning the engineering discipline		~														
Faciles avian Kanudadan	3	Relate and reflect on the knowledge of the context in which engineering is practiced and managed, with an emphasis on the management of quality, occupational health and safety systems, environmental impact, and sustainability issues					*											
and Skill	4	Research, investigate, identify, interpret, appraise, and interpret current research and development underpinning fundamental and specialist bodies of knowledge within the engineering discipline to synthesise a coherent approach to complex engineering problems				<												
	5	Recognise, develop, and demonstrate attributes commensurate of the role of the Professional Engineer not only in the wider multi-disciplinary context but also in shaping the social environment and its contribution to the quality of life						~										
	6	Recognise and evaluate the importance and integral nature in the engineering discipline on such issues as sustainability, environmental and economic awareness, risk assessment and globalization to inform professional decisions					~											
	7	Apply competently the extensive body of fundamental and specialist knowledge underpinning the core areas of engineering; namely, engineering analysis and design, materials and management within industry, detailed engineering analysis and conceptual design							~									
Engineering	8	Identify and assess appropriate engineering techniques, tools and resources and comprehensively apply these to the solution of complex engineering problems							~	~								
Application	9	Synthesise, formulate, and develop solutions for complex or open-ended engineering problems in the design process applicable to at least one specialist body of knowledge in engineering									~							
	10	Apply a systems approach to the design cycle whilst considering the broad contextual constraints of complex engineering problems									~							
	11	Apply project management techniques to deliver engineering projects within specified project constraints										~						
	12	Recognize and demonstrate professional accountability by critically assessing and managing information, identifying ethical issues and take responsible actions in a society of diverse norms and cultures											~			~	~	
Drefessional Attribute	13	Demonstrate a high level of competence in oral and written skills to both professional and lay domains												~				
Professional Attributes	14	Contribute effectively as a team member in multidisciplinary and multicultural team environments															~	
	15	Embrace the leadership role and effectively lead an engineering team		L					1	Γ							~	
	16	Demonstrate a culture of life-long learning commensurate of the responsibilities of a Professional Engineer in professional development													~			

Figure 1: Engineers Australia (EA) stage 1 competency mapping of the program learning outcomes of Bachelor of Engineering (Honours) and Master of Engineering Technology programs.



6.2 Bachelor of Engineering (Honours) (Civil Engineering)

6.2.1 Program Information

The Bachelor of Engineering (Honours) (Civil Engineering) will provide you with training, academic foundation, and practical overview in a wide range of civil engineering areas including structures, water, environment, geotechnical and transport infrastructure. Throughout this program, you will gain theoretical knowledge and practical skills in these core civil engineering areas; learn how to apply manual and computer-based analysis and design procedures to solve complex problems, acquire mathematical and computational techniques, get an understanding of the environmental, social, and ethical factors within engineering; research and critically assess related information; and practice how to effectively communicate technical and theoretical content. The program also includes problem-based and project-based learning from current real-world problems relevant to civil engineering industries and organisations.

A summary of the program information is provided in Table 2.

Table 2: Program information summary for the Bachelor of Engineering (Honours) (Civil Engineering).

Information is correct as at	January 2022
Program Code	EG8.CIV
AQF Equivalent	8
Locations and Modes of Delivery	Mt Helen and Gippsland (Face-to-Face)
Duration	4 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is accredited by Engineers Australia.

6.2.2 Program Structure and Areas of Study

You will be required to undertake 30 courses totalling to 480 credit points for successful completion of the Bachelor of Engineering (Honours) (Civil Engineering) degree. The program structure is described in Table 3. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information should you wish to apply for credit.

The program covers seven thematic areas, including (i) structures, (ii) water and environment, (iii) geotechnical, (iv) infrastructure, (v) mathematics, (vi) engineering core, and (vii) design, project, and practice. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 2.



Table 3: Program structure of Bachelor of Engineering (Honours) (Civil Engineering).

Year 1 – Common Foundation Year													
Semester 1 Semester 2 Course ID Title Credit AQF Course ID Title Credit A													
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF						
ENGIN1001	Professional Engineering	15	7	ENGIN1004	Engineering Design and Drafting	15	7						
ENGIN1002	Engineering Physics	15	7	ENGIN1005	Engineering Mechanics	15	7						
ENGIN1003	Materials in Engineering	15	7	ENGIN1006	Engineering Computer Modelling	15	7						
MATHS1001	Modelling and Change (Introductory Level)	15	7	MATHS1102	Linear Algebra and Applications	15	7						
				Year 2									
Semester 1 Semester 2													
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF						
ENGIN2201	Hydraulics & Hydrology	15	7	ENGIN2203	Structural Analysis	15	7						
ENGIN2202	Concrete Technology & Civil Construction	15	7	ENGIN2204	Introduction to Geotechnical Engineering	15	7						
ENGIN2301	Mechanics of Solids	15	7	ENGIN2002	Engineering Project Management & Sustainable Design	15	7						
MATHS2016	Modelling Continuous Change	15	7	MATHS3001	Modelling and Change (Advanced Level)	15	7						
		ENGIN	2001 Pro	fessional Practice	e (0 CP)								
				Year 3									
	Semester 1				Semester 2								
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF						
ENGIN3201	Structural Design	15	7	ENGIN3205	Road Engineering	15	7						
ENGIN3202	Geotechnical Engineering	15	7	ENGIN3206	Water & Wastewater	15	7						
ENGIN3203	Traffic & Transport	15	7	ENGIN3001	Engineering Research Methodology & Management	15	8						
ENGIN3204	Engineering Surveying	15	7	ENGIN3002	Engineering Design Project	15	7						
				Year 4									
	Semester 1	•			Semester 2								
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF						
Spe	cialised Elective	15	7/9	:	Specialised Elective	15	8/9						
Spe	cialised Elective	15	9		Specialised Elective	15	9						
ENGIN4001	Engineering Project 1	30	8	ENGIN4002Engineering Project 2308									
			Total C	redit Point: 480									
			Specia	lised Electives									
	Semester 1	Onealit		Semester 2									
Course ID	Title	Point	AQF	AQF Course ID Title Pc									
SCENV2600	Systems (GIS)	15	7	ENGIN4201	Resources	15	8						
ENGIN5201	Surface Water Hydrology	15	9	ENGIN5202	Advanced Structural Analysis1	15	9						
ENGIN5302	Modelling & Simulation	15	9	MREGC5004	Asset Management Techniques	15	9						





Figure 2: Progression mapping across different years and distribution of thematic areas within the Bachelor of Engineering (Honours) (Civil Engineering) program.



6.2.3 Program Mapping

The Bachelor of Engineering (Honours) (Civil Engineering) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 3. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 3. The course description can be accessed through the course Moodle shell.

	Engineers Australia (EA) competency mapping of all courses at the program level																	
	Bachelor of Engineering (Civil) (Honours)																	
Year	Semester	Courses	Kn	owl	edg Ba	e ar se	nd S	kill	Er Aj	ngin ppli Ab	eeri catio ility	ing on	F Pe	l an ibut	d es			
		1					1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6
		ENGIN1001: Professional Engineering Practice					×	✓		\checkmark				✓				\checkmark
	Comoctor 1	ENGIN1002: Engineering Physics	~	×	✓					\checkmark	×							
	Semester 1	ENGIN1003: Engineering Materials	~	1			×			\checkmark				✓		✓		\checkmark
Voor 1		MATHS1001: Modelling and Change (Introductory Level)		×						\checkmark								
Tearr		ENGIN1004: Engineering Design & Drafting		×					1	✓	~			1				
	Compostor 2	ENGIN1005: Engineering Mechanics	~	~						1				~				
	semester z	ENGIN1006: Engineering Computer Modelling	~	~					1	1								
		MATHS1102: Linear Algebra and Applications	~	~						1								
		ENGIN2201: Hydraulics and Hydrology	~	~	✓	~	~		1	×	~			~				
		ENGIN2202: Concrete Technology and Civil Construction	~		~	~	1	~	~	✓	~	~		✓	~			~
	Semester 1	ENGIN2301: Mechanics of Solids	×	1	~				~	~				~				
		MATHS2016: Modelling Continious Change	× .	~	×				1	×								
Year 2		ENGIN2203: Structural Analysis	× .	×	✓				1	×	1			×				
		ENGIN2204: Introduction to Geotechnical Engineering	~	~	✓	1	1	1	1	✓	~	~		✓	~	~	1	~
	Semester 2	ENGIN2002: Engineering Project Management and Sustainable Design			~		1	~	~	✓	~	~		✓	~			~
		MATHS3001: Modelling and Change (Advanced Level)	~	~	✓				1	✓								
		ENGIN2001: Professional Practice					~	1		~	~	~	~	~	~	~	1	~
		ENGIN3201: Structural Design	× .	×	✓			×	1	✓	1			×				~
	C	ENGIN3202: Geotechnical Engineering	× .	✓	✓	1		×	1	✓	✓	~	1	✓				~
	Semester 1	ENGIN3203: Traffic and Transport	~	~	✓	~	~	1	~	1	~		~	~		~	1	
¥2		ENGIN3204: Engineering Surveying	~	~	✓			1	~	1	~	~		~				~
Year 3		ENGIN3205: Road Engineering	× .	×	✓	1	1	×	1	✓	1	~	1	×	1	×		~
		ENGIN3206: Water and Wastewater	~	~	✓	~	1	~	~	✓	~		1	~	~	~	1	~
	Semester 2	ENGIN3001: Engineering Research Methodology and Management	~	~	✓	~	1	~	~	✓	~	~	~	✓	✓	~	~	~
		ENGIN3002: Engineering Design Project	× .	✓	✓		×			×	✓			×	✓			~
		Specialisation Elective																
	Semester 1	Specialisation Elective																
		ENGIN4001: Engineering Project 1	~	1	\checkmark	1	1	1	×	1	1	1	1	1	1	1	1	1
Year 4		Specialisation Elective																
	Semester 2	Specialisation Elective																
		ENGIN4002: Engineering Project 2	1	1	×	×	×	× .	1	1	×	~	1	×	1	×	\checkmark	~

Figure 3: Engineers Australia (EA) stage 1 competency mapping of the Bachelor of Engineering (Honours) (Civil Engineering) program.



6.3 Bachelor of Engineering (Honours) (Electrical and Information Engineering)

6.3.1 Program Information

The Bachelor of Engineering (Honours) (Electrical and Information Engineering) will provide you with a strong foundation and broad training in planning, designing and operating complex electrical and electronic systems combining different aspects of information engineering. The program covers key areas of electrical domain – electrical circuits, signals and systems, energy conversion, power electronics, power systems, embedded and control systems and reviewable energy. Linking to these topics, students would be introduced to areas of information engineering – programming, data science and data analytics, cybersecurity of physical systems, imaging and artificial intelligence and communication engineering.

A summary of the program information is provided in Table 4.

Table 4: Program information summary for the Bachelor of Engineering (Honours) (Electrical and Information Engineering).

Information is correct as at	January 2022
Program Code	EG8.EIE
AQF Equivalent	8
Locations and Modes of Delivery	Mt Helen and Gippsland (Face-to-Face)
Duration	4 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is provisionally accredited by Engineers Australia.

6.3.2 Program Structure and Areas of Study

You will be required to undertake 30 courses totalling to 480 credit points for successful completion of the Bachelor of Engineering (Honours) (Electrical and Information Engineering) degree. The program structure is shown in Table 5. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information should you wish to apply for credit.

The program covers five thematic areas, including (i) electrical and electronics, (ii) information engineering, (iii) mathematics, (iv) engineering core, and (v) design, project, and practice. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 4.



Table 5: Program structure of Bachelor of Engineering (Honours) (Electrical and Information Engineering).

		Year 1	– Comn	non Foundation Ye	ar		
	Semester 1				Semester 2		
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF
ENGIN1001	Professional Engineering	15	7	ENGIN1004	Engineering Design and Drafting	15	7
ENGIN1002	Engineering Physics	15	15	7			
ENGIN1003	Materials in Engineering	15	7	ENGIN1006	Engineering Computer Modelling	15	7
<u>MATHS1001</u>	Modelling and Change (Introductory Level)	15	7	MATHS1102	Linear Algebra and Applications	15	7
				Year 2			
	Semester 1				Semester 2		
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF
ENGIN2105	Digital Logic and Electronic Systems	15	7	ENGIN2103	Principles of Renewable Energy Sources	15	7
ENGIN2102	Signals and Systems	15	7	ENGIN2104	Electromechanical Energy Conversion	15	7
ITECH1103	Big Data and Analytics	15	7	ENGIN2002	Engineering Project Management & Sustainable Design	15	7
MATHS2016	Modelling Continuous Change	15	7	MATHS3001	Modelling and Change (Advanced Level)	15	7
		ENGIN20	01 Prof	essional Practice (0	CP)		
				Year 3			
	Semester 1	-			Semester 2		
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF
ENGIN3101	Power Electronics	15	7	ENGIN3103	Power System Protection	15	7
ENGIN3102	Power System Analysis	15	7	ENGIN3104	Digital Communication Principles	15	7
ENGIN3401	Engineering Computer Applications & Interactive Modelling	15	7	ENGIN3405	Digital Imaging & Artificial Intelligence	15	7
ENGIN3404	System Dynamics & Control	15	7	ENGIN3001	Engineering Research Methodology & Management	15	8
			,	Year 4			
	Semester 1				Semester 2		
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF
ENGIN4101	Electrical Power Distribution Engineering	15	8	ENGIN4102	Power Electronic Application to Renewable Energy Systems	15	8
ENGIN5102	Micro-Grid and Energy Storage Systems	15	9	ENGIN4402	Digital & Embedded Systems	15	8
ENGIN4001	Engineering Project 1	30	8	ENGIN4002	Engineering Project 2	30	8
		٦	otal Cr	edit Point: 480			





Figure 4: Progression mapping across different years and distribution of thematic areas within the Bachelor of Engineering (Honours) (Electrical and Information

Engineering) program.



6.3.3 Program Mapping

The Bachelor of Engineering (Honours) (Electrical and Information Engineering) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 5. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 5. Course description can be accessed through each courses Moodle shell.

	Engineers Australia (EA) competency mapping of all courses at the program level																		
	Bachelor of Engineering (Electrical and Information Engineering) (Honours)																		
Year	Semester	Courses	Knowledge and Skil Base							ngin ppli Ab	eeri catio ility	ng on	Professional and Personal Attributes						
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6	
		ENGIN1001: Professional Engineering Practice					1	1		1				1				1	
	Semester 1	ENGIN1002: Engineering Physics	1	1	1					1	1								
	Semester 1	ENGIN1003: Engineering Materials	1	1			1			1				1		1		1	
Vear 1		MATHS1001: Modelling and Change (Introductory Level)		1		-				1									
Tear I		ENGIN1004: Engineering Design & Drafting		1					1	1	1			1					
	Somoctor 2	ENGIN1005: Engineering Mechanics	1	1	1					1									
	Semester 2	ENGIN1006: Engineering Computer Modelling	1	1					1	1									
		MATHS1102: Linear Algebra and Applications	1	1						1									
		ENGIN2105: Digital Logic and Electronic Systems	1	1	1		1	1	1	1	1	1		1	1	1	1	1	
	Semester 1	ENGIN2102: Signals and Systems	1	1	1		1	1	1	1	1	1	1	1	1		1		
		ITECH1103: Big Data and Analytics																	
		MATHS2016: Modelling Continious Change	1	1	1				1	1									
Year 2		ENGIN2404: Electrical and Electronic Drives and Actuators	1	1	1		1		1	1				1	1				
	Semester 2	ENGIN2103: Principles of Renewable Energy Sources	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		ENGIN2002: Engineering Project Management and Sustainable Design			1		1	1	1	1	1	1		1	1			1	
		MATHS3001: Modelling and Change (Advanced Level)	1	1	1				1	1									
		ENGIN2001: Professional Practice					1	1		1	1	1	1	1	1	1	1	1	
		ENGIN3401: Engineering Computer Applications and Interactive Modelling	1	1	1		1		1	1	1			1	1				
	Competent 1	ENGIN3101: Power Electronics	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Semester 1	ENGIN3102: Power System Analysis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
V2		ENGIN3404: System Dynamics and Control	1	1	1				1	1	1				1		-		
rear 5		ENGIN3103: Power System Protection	-	1	1	1	1	1	1		1	1	1	1	1	1	1		
	Comparison 2	ENGIN3104: Digital Communical Principles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Semester 2	ENGIN3001: Engineering Research Methodology and Management	1	1	1	1	1	1	1	1		~		1		1			
		ENGIN3405: Digital Imaging and Artificial Intelligence	1	1	1	1		1	1	1	1	1	1		1	\square			
		ENGIN4101: Electrical Power Distribution Engineering	1	1	1		1	1	1	1	1	1		1	1	1	1	1	
	Semester 1	ENGIN4102: Power Electronic Application to Renewable Energy Systems	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
v.		ENGIN4001: Engineering Project 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
rear 4		ENGIN4402: Digital and Embedded Systems	1	1	1		1		1	1	1			1	1			1	
	Semester 2	ENGIN5102: Micro-Grid and Energy Storage Systems	1		1	1	1	1	1	1	1	1		1	1	1	1	1	
		ENGIN4002: Engineering Project 2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

Figure 5: Engineers Australia (EA) stage 1 competency mapping of the Bachelor of Engineering (Honours) (Electrical and Information Engineering) program.



6.4 Bachelor of Engineering (Honours) (Mechatronics and Robotics Engineering)

6.4.1 Program Information

The Bachelor of Engineering (Honours) (Mechatronics and Robotics Engineering) will provide you with a strong foundation and broad training in planning, designing and operating complex systems that integrate mechanical, electronic, and computational elements of engineering. Through this program, you will experience theoretical and practical learning, acquire skills to synthesise, analyse and design various physical engineering systems; apply mathematical and computational techniques to problem-solving; understand ethical, social, and environmental contexts of the field; research and critically assess relevant information; and effectively communicate technical and theoretical content. You will also undertake project-based learning in real-world problems that are strongly supported by major local manufacturers and engineering industries.

A summary of the program information is provided in Table 6.

 Table 6: Program information summary for the Bachelor of Engineering (Honours) (Mechatronics and Robotics Engineering).

Information is correct as at	January 2022
Program Code	EG8.MCT
AQF Equivalent	8
Locations and Modes of Delivery	Gippsland (Face-to-Face) and Online
Duration	4 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is accredited by Engineers Australia.

6.4.2 Program Structure and Areas of Study

You will be required to undertake 30 courses totalling to 480 credit points for successful completion of the Bachelor of Engineering (Honours) (Mechatronics and Robotics Engineering) degree. The program structure is given in Table 7. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information.

The program covers seven thematic areas, including (i) electronics, (ii) mechanical systems, (iii) robotics and control, (iv) computing and artificial intelligence, (v) mathematics, (vi) engineering core, and (vii) design, project, and practice. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 6.



Table 7: Program structure of Bachelor of Engineering (Honours) (Mechatronics and Robotics Engineering).

Year 1 – Common Foundation Year													
	Semester 1			Semester 2									
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF						
ENGIN1001	Professional Engineering	15	7	ENGIN1004	Engineering Design and Drafting	15	7						
ENGIN1002	Engineering Physics	15	7	ENGIN1005	Engineering Mechanics	15	7						
ENGIN1003	Materials in Engineering	15	7	ENGIN1006	Engineering Computer Modelling	15	7						
<u>MATHS1001</u>	Modelling and Change (Introductory Level)	15	7	MATHS1102	Linear Algebra and Applications	15	7						
			Ye	ar 2									
	Semester 1				Semester 2								
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF						
ENGIN2401	Analog and Digital Electronics	15	7	ENGIN2303	Mechanism and Machine Theory	15	7						
ENGIN2402	Measurement and Computer Instrumentation	15	7	ENGIN2404	Electrical and Electronic Drives and Actuators	15	7						
ENGIN2403	Fluid and Pneumatic Control	15	7	ENGIN2002	Engineering Project Management & Sustainable Design	15	7						
<u>MATHS2016</u>	Modelling Continuous Change	15	7	MATHS3001	Modelling and Change (Advanced Level)	15	7						
		ENGIN200	<u>1</u> Profess	ional Practice (0	CP)								
			Ye	ar 3									
	Semester 1				Semester 2								
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF						
ENGIN3401	Engineering Computer Applications & Interactive Modelling	15	7	ENGIN3405	Digital Imaging & Artificial Intelligence	15	7						
ENGIN3402	Mechatronics Components Design	15	7	ENGIN3406	Intelligent Mechanisms Design	15	7						
ENGIN3403	Sensors & Artificial Perception	15	7	ENGIN3001	Engineering Research Methodology &Management	15	8						
ENGIN3404	System Dynamics & Control	15	7	ENGIN3002	Engineering Design Project	15	7						
			Ye	ar 4									
	Semester 1				Semester 2	_							
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF						
ENGIN4401	Industrial Robotic Systems	15	8	ENGIN4402	Digital & Embedded Systems	15	8						
MREGC5001	Terotechnology and Life Cycle Costs	15	9	ENGIN5405	Advanced Control Systems Engineering	15	9						
ENGIN4001	Engineering Project 1	30	8	ENGIN4002	Engineering Project 2	30	8						
		То	tal Credi	it Point: 480									





Figure 6: Progression mapping across different years and distribution of thematic areas within the Bachelor of Engineering (Honours) (Mechatronics and Robotics Engineering) program.



6.4.3 Program Mapping

The Bachelor of Engineering (Honours) (Mechatronics and Robotics Engineering) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 7. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 7. Course description can be accessed through each course's Moodle shell.

		Engineers Australia (EA) competency mapping of all cou	rses	at th	e pro	ogra	m le	vel										
		Bachelor of Mechatronic Systems Engineeri	ng (H	ono	urs)													
Year	Semester	Courses	Knowledge and Skill Base						Er A	ngin ppli Ab	eeri catio ility	ing on	g Profess Personal				l an ibut	d es
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6
		ENGIN1001: Professional Engineering Practice					1	1		1				1				×
	Somostor 1	ENGIN1002: Engineering Physics	~	1	✓					1	✓							
	Jennester I	ENGIN1003: Engineering Materials	~	1			1			1				1		×		 Image: A second s
Voor 1		MATHS1001: Modelling and Change (Introductory Level)		1						×								
Tear I		ENGIN1004: Engineering Design & Drafting		×					×	×	×			>				
	Somostor 2	ENGIN1005: Engineering Mechanics	~	~	✓					×								
	semester z	ENGIN1006: Engineering Computer Modelling	~	~					1	×								
		MATHS1005: Secrets of the Matrix	~	~						1								
		ENGIN2401: Analog and Digital Electronics	~	~	~				~	✓	~			~	~		1	
		ENGIN2402: Measurement and Computer Instrumentation	~	~	~		1		×	✓				~	~			
	Semester 1	ENGIN2403: Fluid and Pneumatic Control	~	~	✓		×		×	✓	v			~	✓			
		MATHS2016: Modelling Continious Change	~	~	✓				×	✓								
Year 2		ENGIN2404: Electrical and Electronic Drives and Actuators	~	~	✓				1	~	1						1	
		ENGIN2303: Mechanism and Machine Theory	~	~	✓		1	1	1	✓	v			~				
	Semester 2	ENGIN2002: Engineering Project Management and Sustainable Design			~		1	~	~	✓	v	~		~	1			~
		MATHS3001: Modelling and Change (Advanced Level)	~	~	~				~	~								
		ENGIN2001: Professional Practice					1	~		~	v	1	~	~	~	~	×	~
		ENGIN3401: Engineering Computer Applications and Interactive Modelling	~	1	1		1		1	~	1						1	
		ENGIN3402: Mechatronics Components Design	~	~	✓	~			~	~	v			~	1		1	
	Semester 1	ENGIN3403: Sensors and Artificial Perception	~	~	✓	~		1	1	✓	v	~	~	~	✓			
× 2		ENGIN3404: System Dynamics and Control	~	~	~		1		~	✓	~						1	
Year 3		ENGIN3405: Digital Imaging and Artificial Intelligence	~	~	✓	1			1	~	1						1	
		ENGIN3406: Intelligent Mechanisms Design	~	~	✓				~	~				~	~	~		
	Semester 2	ENGIN3001: Engineering Research Methodology and Management	~	~	✓	~	~	1	~	~		1		~		~		
		ENGIN3002: Engineering Design Project	~	~	✓		~			~	~			~	1		1	~
		ENGIN4401: Industrial Robotic Systems	~	~	~	~	1	~	1	1	1	~			~		1	~
	Semester 1	MREGC5001: Terotechnology and Life Cycle Costs	~	~	~		~		~	~	~				~			
		ENGIN4001: Engineering Project 1	~	~	~	~		×	~	~		~	~	~	~	×	1	×
Year 4		ENGIN4402: Digital and Embedded Systems	1	~	~				1	~	 Image: A second s							
	Semester 2	ENGIN5405: Advanced Control Systems Engineering	~	~	~		1		~	~	1		İ					
		ENGIN4002: Engineering Project 2	×.	×	×	×		× .	× .	×		×	× .	1	×	1	~	×

Figure 7: Engineers Australia (EA) stage 1 competency mapping of the Bachelor of Engineering (Honours) (Mechatronics and Robotics Engineering) program.



6.5 Bachelor of Engineering (Honours) (Mechanical Engineering)

6.5.1 Program Information

The Bachelor of Engineering (Honours) (Mechanical Engineering) will provide you with a strong foundation and broad training in planning, designing and problem-solving sustainable and reliable mechanical and thermal systems used in engines, heating, cooling and ventilation installations. Through this program, you will experience theoretical and practical learning, acquire skills to synthesise, analyse and design various mechanical engineering systems; apply mathematical and computational techniques; understand ethical, social, and environmental contexts of the field; research and critically assess relevant information; and effectively communicate technical and theoretical content. You will work independently and in teams on projects that are relevant to major local manufacturers, consulting and engineering industries. You will also undertake a professional placement with a relevant industry.

A summary of the program information is provided in Table 8.

Table 8: Program information summary for the Bachelor of Engineering (Honours) (Mechanical Engineering).

Information is correct as at	January 2022
Program Code	EG8.MEC
AQF Equivalent	8
Locations and Modes of Delivery	Mt Helen (Face-to-Face)
Duration	4 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is accredited by Engineers Australia.

6.5.2 Program Structure and Areas of Study (Mechanical Engineering)

You will be required to undertake 30 courses totalling to 480 credit points for successful completion of the Bachelor of Engineering (Honours) (Mechanical) degree. The program structure is given in Table 9. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information.

The program covers six thematic areas, including (i) thermal systems and energy, (ii) vibration and machine dynamics, (iii) design of mechanical systems, (iv) mathematics, (v) engineering core, and (vi) capstone project, and practice. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 8.



Table 9: Program structure of Bachelor of Engineering (Honours) (Mechanical Engineering).

	Ŷ	′ear 1 – C	ommon	Foundation Ye	ar									
	Semester 1				Semester 2									
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF							
ENGIN1001	Professional Engineering	15	7	ENGIN1004	Engineering Design and Drafting	15	7							
ENGIN1002	Engineering Physics	15	7	ENGIN1005	Engineering Mechanics	15	7							
ENGIN1003	Materials in Engineering	15	7	ENGIN1006	GIN1006 Engineering Computer Modelling									
MATHS1001	Modelling and Change (Introductory Level)	15	7	MATHS1102	ATHS1102 Linear Algebra and 15 Applications									
			ar 2											
	Semester 1				Semester 2									
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF							
ENGIN2301	Mechanics of Solids	15	7	ENGIN2303	Mechanism and Machine Theory	15	7							
ENGIN2302	N2302 Engineering Dynamics 15 7 ENGIN2304 Thermofluids													
ENGIN2402	Measurement and Computer Instrumentation	15	7	ENGIN2002	Engineering Project Management & Sustainable Design	15	7							
MATHS2016	Modelling Continuous Change	Ing Continuous Change 15 7 MATHS3001 (Advanced Level) Modelling and Change (Advanced Level)												
	EN	IGIN2001	Profess	ional Practice (0	CP)									
			Yea	ar 3										
	Semester 1				Semester 2									
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF							
ENGIN3301	Fluid Dynamics	15	7	ENGIN3304	Thermodynamics	15	7							
ENGIN3302	Introduction to Vibration Analysis	15	7	ENGIN3305	Manufacturing Engineering	15	7							
ENGIN3303	Robotics	15	7	ENGIN3001	Engineering Research Methodology & Management	15	8							
ENGIN3404	System Dynamics and Control	15	7	ENGIN3002	Engineering Design Project	15	7							
			Yea	ar 4										
	Semester 1				Semester 2									
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF							
ENGIN4301	Machine Dynamics and Vibration	15	8	ENGIN5301	Design of Mechanical 15 Systems 15					Design of Mechanical Systems		Design of Mechanical Systems		8
ENGIN5302	Modelling and Simulation	15	9	ENGIN4302	02 Energy Conversion 15									
ENGIN4001	Engineering Project I	30	8	ENGIN4002	Engineering Project II	30	8							
		Tota	l Credit	Points: 480										





Figure 8: Progression mapping across different years and distribution of thematic areas within the Bachelor of Engineering (Honours) (Mechanical Engineering)



6.5.3 Program Mapping (Mechanical Engineering)

The Bachelor of Engineering (Honours) (Mechanical Engineering) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 9. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 9. Course description can be accessed through each courses Moodle shell.

	Engineers Australia (EA) competency mapping of all courses at the program level																	
		Bachelor of Engineering (Mechanical) (H	lono	urs)														
Year	Semester	Courses	Knowledge and Ski Base						En Aj	ngin ppli Ab	eeri cati ility	ing on	F Pe	Prof erso	ona Attri	l an ibut	d es	
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6
		ENGIN1001: Professional Engineering Practice					~	~		~				~				~
	C	ENGIN1002: Engineering Physics	1	~	✓					1	~							
	Semester 1	ENGIN1003: Engineering Materials	1	~	1		~	~		1				~				
Voor 1		MATHS1001: Modelling and Change (Introductory Level)		~						1								
reari		ENGIN1004: Engineering Design & Drafting		~					~	~	~			~			1	
	C	ENGIN1005: Engineering Mechanics	1	~						~				~			1	
	Semester 2	ENGIN1006: Engineering Computer Modelling	1	~					~	~								
		MATHS1102: Linear Algebra and Applications	1	~						~							1	
		ENGIN2301: Mechanics of Solids	1	~	✓				~	×				~				
	C	ENGIN2402: Measurement and Computer Instrumentation	1	~	✓		~		~	 ✓ 				~	×			
	Semester 1	ENGIN2302: Engineering Dynamics	1	~	✓			×	~	 ✓ 	~							
		MATHS2016: Modelling Continious Change	1	~	~				~	~								
Year 2		ENGIN2304: Thermofluids	1	~	✓			×	\checkmark	×		×		✓			×	
		ENGIN2303: Mechanism and Machine Theory	~	~	✓		~	~	~	~	1			~				
	Semester 2	ENGIN2002: Engineering Project Management and Sustainable Design		~		~	~	~	~	 ✓ 	~	~		~	×	~	×	~
		MATHS3001: Modelling and Change (Advanced Level)	~	~	~				~	 ✓ 								
		ENGIN2001: Professional Practice					~	~		~	~	~	~	~	~	~	~	~
		ENGIN3301: Fluid Dynamics	1	~	✓	1	1	~	\checkmark	×	1	×		~		×	×	×
		ENGIN3302: Introduction to Vibration Analysis	~	~	✓	~		~	~	~	~			~		~		
	Semester 1	ENGIN3303: Robotics	~	~	✓			~	~	~	~	~	1	~	×	~	×	
¥2		ENGIN3404: System Dynamics and Control	~	~	✓		~		~	~	~							
Year 3		ENGIN3304: Thermodynamics	1	~	✓	1			~	~	~			1				
		ENGIN3305: Manufacturing Engineering	1	~	✓	~	1	~	~	~	~	~	~	~		~	1	
	Semester 2	ENGIN3001: Engineering Research Methodology and Management	~	~	✓	~	~	~	~	~		×		~		~		
		ENGIN3002: Engineering Design Project	~	~	✓		~	~	~	~	~	~	~	~	×	~	×	~
		ENGIN4301: Machine Dynamics and Vibration	1	1	×	1	1	×	×	1	1	×	×	×	×	~	~	~
	Semester 1	ENGIN5302: Modelling and Simulation	1	~	~	~			×	~	~			~				
		ENGIN4001: Engineering Project 1	1	~	~	1	1	~	×	~	~	×	×	~	×	×	\checkmark	×
Year 4		ENGIN4302: Energy Conversion	1	~	~			×	~	~	×			~		\checkmark		
	Semester 2	ENGIN5301: Machine System Design	~	~	~	1	1	~	~	~	~	×	1	~		~	×	×
		ENGIN4002: Engineering Project 2	~	~	~	~	~	×	×	×	~	1	~	~	×	~	~	~

Figure 9: Engineers Australia (EA) stage 1 competency mapping of the Bachelor of Engineering (Honours) (Mechanical Engineering) program.



6.6 Bachelor of Engineering (Honours) (Mining Engineering)

6.6.1 Program Information

The Bachelor of Engineering (Mining Engineering) (Honours) will equip you with the necessary communication, technical and problem-solving skills required to meet the high demand for graduates in mining engineering in Australia and the Asia Pacific Region. Throughout the program, you will explore study areas in mineral deposit evaluation and processing, underground production systems, mine power and services, surface mining operations and mine environment and safety to establish best practices in sustainable and safe mining. Mining engineers work with the community to produce a sustainable engineering solution, through the exploration, planning, extraction and processing of minerals, with minimal environmental footprint. As an accredited mining engineer you can work in government and private organisations, mining companies and consulting firms to design, install and supervise the use of mining machinery and equipment, inspect the progress of mineral deposits.

Program information summary is provided in Table 10.

Information is correct as at	January 2022
Program Code	EG8.MIN
AQF Equivalent	8
Locations and Modes of Delivery	Mount Helen (Face-to-Face) and Online
Duration	4 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is accredited by Engineers Australia.

Table 10: Program information summary for the Bachelor of Engineering (Mining Engineering) (Honours).

6.6.2 Program Structure and Areas of Study

You will be required to undertake 30 courses totalling 480 credit points for successful completion of the Bachelor of Engineering (Honours) (Mining Engineering) degree. The program structure is given in Table 11. The course outlines can be accessed by clicking the hyperlink associated with each course ID. Please also refer to the <u>credit transfer</u> and <u>transition arrangement</u> sections for more information.

The program covers eight thematic areas, including (i) surface mining, (ii) underground mining, (iii) environmental engineering, (iv) geoscience, (v) mineral processing, (vi) mathematics, (vii) engineering core, and (viii) design, project, and practice. The course distribution within each of these areas and the progression mapping across different years are presented in Figure 10.



Table 11: Program structure of Bachelor of Engineering (Honours) (Mining Engineering).

		Year	1 – Comi	mon Foundatio	n Year								
	Semester 1				Semester 2								
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF						
ENGIN1001	Professional Engineering	15	7	ENGIN1004	Engineering Design and Drafting	15	7						
ENGIN1002	Engineering Physics	15	7	ENGIN1005	Engineering Mechanics	15	7						
ENGIN1003	Materials in Engineering	15	7	ENGIN1006	Engineering Computer Modelling	15	7						
<u>MATHS1001</u>	Modelling and Change (Introductory Level)	15	7	MATHS1102	Linear Algebra and Applications	15	7						
				Year 2									
	Semester 1				Semester 2								
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF						
ENGIN2301	Mechanics of Solids	15	7	ENGIN2304	Thermofluids	15	7						
ENGIN2501	Mine Power and Services Technology	15	7	ENGIN2503	Rock Mechanics Application	15	7						
ENGIN2502	Rock Fragmentation	15	7	SCGE01103	Planet Earth	15	7						
MATHS2016	Modelling Continuous Change	15	7	MATHS3001	Modelling and Change (Advanced Level)	15	7						
		ENGIN	2001 Prot	fessional Practic	e (0 CP)								
				Year 3									
	Semester 1				Semester 2								
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF						
ENGIN3204	Engineering Surveying	15	7	ENGIN3503	Surface Mining Operations and Equipment	15	7						
ENGIN3501	Underground Production Systems	15	7	ENGIN5503	Advanced Mine Ventilation	15	9						
ENGIN3502	Subsurface Environmental Engineering	15	7	SCGE02105	Economic Geology	15	7						
SCENV3120	Landscape Restoration And Mine Site Rehabilitation	15	8	ENGIN3001	Engineering Research Methodology & Management	15	8						
				Year 4									
	Semester 1				Semester 2								
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF						
ENGIN5505	Mine Planning and Scheduling	15	9	ENGIN5508	Smart Engineering Technologies	15	9						
<u>SCMET3100</u>	Mineral Processing I	15	7	<u>SCMET3200</u>	Mineral Processing II	15	7						
ENGIN4001	Engineering Project 1	30	8	ENGIN4002	Engineering Project 2	30	8						
			Total C	redit Point: 480									





Figure 10: Progression mapping across different years and distribution of thematic areas within the Bachelor of Engineering (Honours) (Mining Engineering)

program.



6.6.3 Program Mapping

The Bachelor of Engineering (Honours) (Mining Engineering) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 11. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 11. Course description can be accessed through each courses Moodle shell.

	Engineers Australia (EA) competency mapping of all courses at the program level																	
		Bachelor of Engineering (Mining) (Ho	nour	s)														
Year	Semester	Courses	Knowledge and S Base							ngin ppli Ab	eer cati ility	ing on	F Pe	Profe	essi nal	ona Attri	l an	d es
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6
		ENGIN1001: Professional Engineering Practice					1	✓		✓				×				× .
	Somostor 1	ENGIN1002: Engineering Physics	× .	1	✓					\checkmark	~							
	Semester I	ENGIN1003: Engineering Materials	× .	1			\checkmark			\checkmark				✓		× .		×
Voor 1		MATHS1001: Modelling and Change (Introductory Level)		✓						1								
Tearin		ENGIN1004: Engineering Design & Drafting		×					×	✓	~			×				
	Comportor 2	ENGIN1005: Engineering Mechanics	1	~						1				×				
	Semester 2	ENGIN1006: Engineering Computer Modelling	× .	✓					✓	✓								
		MATHS1102: Linear Algebra and Applications	× .	✓						1								
		ENGIN2301: Mechanics of Solids	× .	~	~				~	1				×				
	C 1	ENGIN2501: Mine Power and Services Technology	× .	~	✓	~	~	~	~	1	1	1		×	~	× .	×	
	Semester 1	ENGIN2502: Rock Fragmentation	× .	~	1		~	~	~		1		~	✓				
		MATHS2016: Modelling Continious Change	× .	~	1				1	1								
Year 2		ENGIN2304: Thermofluids	1	~	1			~	~	1		~		1			×	
		ENGIN2503: Rock Mechanics Applications	× .	~	✓	~	~	~	~	1	~		~	✓		~	×	~
	Semester 2	SCGEO1103: Planet Earth	× .			~						1		×	~	× .		
		MATHS3001: Modelling and Change (Advanced Level)	× .	~	✓				~	1								
		ENGIN2001: Professional Practice					~	~		1	~	~	~	✓	~	× .	×	~
		ENGIN3501: Underground Production Systems	× .	×	✓	1	~		×					×				
	C 1	ENGIN3502: Subsurface Environmental Engineering	× .	~	✓			~	~	 ✓ 	~			✓				
	Semester 1	ENGIN3204: Engineering Surveying	× .	~	✓			~	~	1	~	~		1				~
Voor 2		SCENV3120: Landscape Restoration and Mine Site Rehabilitation				~		×				~	~	×		× .		×
rear 5		ENGIN3503: Surface Mining Operations and Equipment	× .	~	✓		~	~	~		1			×	~	× .	×	
	Comostor 2	ENGIN5503: Advanced Mine Ventilation	× .	~	✓	~	~	~	~	1	1	1	~	✓		× .	×	
	semester z	SCGEO2105: Economic Geology	× .		1	~	~	1		1			1	1	1	× .	1	×
		ENGIN3001: Engineering Research Methodology and Management	× .	~	✓	~	~	~	~	1	~	~	~	✓	~	× .	✓	~
		ENGIN5505: Mine Planning and Scheduling	× .	×	✓	1	~	×	1	1	1	✓	1	✓	1	× .	×	
	Semester 1	SCMET3100: Mineral Processing I	×	~	~			~		~	~			~	~			×
Veent		ENGIN4001: Engineering Project 1	× .	1	×	1	1	×	1	×	~	1	1	×	1	1	× .	×
Year 4		ENGIN5508: Smart Engineering Technologies	×.	×	×	1	~	1	1	×	×	~	1	×	×	~	×	
	Semester 2	SCMET3200: Mineral Processing II	× .	~			~	~		~				~	×			×
		ENGIN4002: Engineering Project 2	×.	~	×	1	~	~	~	×	1	~	~	×	×	~	~	~

Figure 11: Engineers Australia (EA) stage 1 competency mapping of the Bachelor of Engineering (Honours) (Mining Engineering) program.



6.7 Master of Engineering Technology (Civil Engineering)

6.7.1 Program Information

The Master of Engineering Technology (Civil Engineering) aims to produce professional engineers with indepth knowledge across the various domains of civil engineering, which encompasses key components of structures, water and environment, infrastructure, and geotechnical engineering. This program provides a pathway for students who possess a 3 Year Bachelor of Engineering cognate degree towards becoming a Professional Engineer. The proposed program structure provides a balance in knowledge and skills between the key areas of civil engineering with strong focus on project-based and multidisciplinary learning. The variety of courses offered in this program provides students with the opportunity to learn and be exposed to different aspects of the civil engineering discipline. As well as the in-depth technical knowledge, the program also aims to facilitate students achieving professional engineering competencies in project management, teamwork, leadership, problem-solving, communication and research.

A summary of the program information is provided in Table 12.

Information is correct as at	January 2022
Program Code	EY9.CIV
AQF Equivalent	9
Locations and Modes of Delivery	Mt Helen (Face-to-Face)
Duration	2 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is accredited by Engineers Australia.

Table 12: Program information summary for the Master of Engineering Technology (Civil Engineering).

6.7.2 Program Structure and Areas of Study

You will be required to undertake 14 courses totalling to 240 credit points for successful completion of the Master of Engineering Technology (Civil Engineering) degree. The program structure is shown in Table 13. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information should you wish to apply for credit.

The program covers four thematic areas, including (i) structures, (ii) water and environment, (iii) infrastructure and geotechnical, and (iv) design, project, and practice. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 12.



	Year 1														
	Semester 1				Semester 2										
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF								
ENGIN3202	Geotechnical Engineering	15	7	ENGIN2203	Structural Analysis	15	7								
ENGIN5201	Surface Water Hydrology	15	9	ENGIN3205	Road Engineering	15	7								
ENGIN5302	Modelling & Simulation	15	9	ENGIN2002	Engineering Project Management and Sustainable Design	15	7								
MREGC5001	Terotechnology & Life Cycle Costs	15	9	ENGIN3001	Engineering Research Methodology & Management	15	8								
			Year	2											
	Semester 1				Semester 2										
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF								
ENGIN3201	Structural Design	15	7	ENGIN4201	Management of Water Resources	15	8								
MGGGC7105	Slope Stability	15	9	ENGIN5202	Advanced Structural Analysis1	15	9								
ENGIN5002	Advanced Engineering Project 1	30	9	ENGIN5003	Advanced Engineering Project 2	30	9								
		Tota	al Credit	Point: 240											

Table 13: Program structure of Master of Engineering Technology (Civil Engineering).



Figure 12: Progression mapping across different years and distribution of thematic areas within the Master of Engineering Technology (Civil Engineering) program.

6.7.3 Program Mapping

The Master of Engineering Technology (Civil Engineering) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 13. Detailed competency mapping of each course can be found in the course outline and course



description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 13. Course descriptions can be accessed through each course Moodle shells.

		Engineers Australia (EA) competency mapping of all court	rses a	nt th	e pro	ograi	n le	vel	-	-				-				
		Master of Engineering Technology (Civil Er	igine	erin	g)													
Year	Semester	Courses	Knowledge and Skill Base Application Ability							F Pe	Profe erso	rofessional and rsonal Attributes						
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6
		ENGIN3202: Geotechnical Engineering	× -	~	1	1		~	~	1	1	1	>	>				×
	Compostor 1	ENGIN5201: Surface Water Hydrology	× -	~	×	~	~	×	>	×	1			>				
Seme	Semester 1	ENGIN5302: Modelling and SImulation	× .	~	~	~			~	1	~			~				
V1		MREGC5001: Terotechnology and Life Cycle Costs	× .	~	~		~		~	~	~				× .			
rear 1		ENGIN2002: Engineering Project Management and Sustainable Design			~		~	~	~	~	~	1		~	× .			×
	Compostor 2	ENGIN2203: Structural Analysis	× -	~	~				~	~	~			~				
	semester z	ENGIN3001: Engineering Research Methodology and Management	× -	~	1	1	~	~	~	1	1	1	>	>	× .	×	~	1
		ENGIN3205: Road Engineering	× -	~	×	~	~	×	>	×	1	1	~	>	× .	\checkmark		~
		ENGIN3201: Structural Design	× .	~	~			~	~	~	~	~	~	~				~
	Semester 1	MGGGC7105: Slope Stability	× -	~	~				~	~	~							
Veer 2		ENGIN5002: Advanced Engineering Project 1	× -	~	1	1	~	~	~	1	1	1	>	>	× .	×	~	~
rearz		ENGIN4201: Management of Water Resources	× -	~	~	1	~	×	~	~	~	×	>	>	\checkmark	×	×	1
	Semester 2	ENGIN5202: Advanced Structural Analysis I	× -	~	1			×	~	1	1	1	~	~			×	1
		ENGIN5003: Advanced Engineering Project 2	1	~	1	1	~	~	~	1	1	1	~	~	× .	~	\checkmark	~

Figure 13: Engineers Australia (EA) stage 1 competency mapping of the Master of Engineering Technology (Civil Engineering) program.



6.8 Master of Engineering Technology (Mechanical Engineering)

6.8.1 Program Information

The Master of Engineering Technology (Mechanical Engineering) is open to the graduates who hold a 3 Year Bachelor of Engineering cognate degree from both domestics and overseas institutions. The program is fully accredited by Engineers Australia as it equips participants with the knowledge and skills needed to attain the professional engineering level. Through this program, participants experience theoretical and practical learning, acquire advanced skills to synthesise, analyse and design various mechanical engineering systems; employ mathematical and computational techniques; understand and appreciate ethical, social, and environmental contexts of the field; research and critically assess relevant information; and effectively communicate technical and theoretical content Participants in the Masters program build on their undergraduate knowledge base to venture in advanced technical and professional domains in such vital areas of mechanical engineering as thermal engineering, vibration, control and design of mechanical systems. Moreover, participants enrolled in this program work on industry-relevant projects both independently and in teams.

A summary of the program information is provided in Table 14.

Table 14: Program information summary for the Master of Engineering Technology (Mechanical

Engineering).

Information is correct as at	January 2022
Program Code	EY9.MEC
AQF Equivalent	9
Locations and Modes of Delivery	Mount Helen (Face-to-Face)
Duration	2 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is fully accredited by Engineers Australia.

6.8.2 Program Structure and Areas of Study

You will be required to undertake 14 courses totalling to 240 credit points for successful completion of the Master of Engineering Technology (Mechanical Engineering) degree. The program structure is given in Table 15. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information. The program covers five thematic areas, including (i) thermal systems, (ii) mechanical vibration, (iii) design of mechanical systems, (iv)



control systems, and (v) research project. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 14.

Table 15: Program structure of Master of Engineering Technology (Mechanical Engineering).

	Year 1 – Common Foundation Year														
	Semester 1			Semester 2											
Course ID	Title	Credit Point	AQF	AQF Course ID Title											
ENGIN3302	Introduction to Vibration Analysis	15	7	ENGIN3304	Thermodynamics	15	7								
ENGIN2301	Mechanics of Solids	15	7	ENGIN5304	Advanced Robotics	15	9								
ENGIN3404	System Dynamics and Control	15	7	ENGIN3001	Engineering Research Methodology & Management	15	8								
ENGIN5302	Modelling and Simulation	15	9	MREGC5003	Industrial Techniques in Maintenance Management	15	9								
			Year	2											
	Semester 1				Semester 2										
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF								
ENGIN5301	Machine System Design	15	9	ENGIN5405	Advanced Control Systems Engineering	15	9								
ENGIN4301	Machine Dynamics and Vibration	15	8	ENGIN4302	Energy Conversion	15	8								
ENGIN5002	Advanced Engineering Project	30	9	ENGIN5003	Advanced Engineering Project II	30	9								
		Tota	Credit F	Points: 240											

Year 2 Semester 2	E	ENGIN4302 Energy Conversion	Mechanical Design	Mechanical Vibration	Control Systems ENGIN5405 Advanced Control Systems Engineering	Research Project
Year 2 Semester 1		Î	ENGIN5301 Design of Mechanical Systems	ENGINc4301 Vibration and Machine Dynamics		ENGIIN5002 Advanced Engineering Project
Year 1 Semester 2	[ENGIN3304 Thermodynamics		A	ENGIN5304 dvanced Robotics	MREGC5003 Industrial Techniques in Maintenance Management Kethodology & Maragement
Year 1 Semester 1			ENGIN2031 Solid Mechanics	ENGIN3302 Introduction to Vibration Analysis	ENGIN3404 System Dynamics and Control	ENGIN5302 Modelling and SImulation

Figure 14: Progression mapping across different years and distribution of thematic areas within the Master of Engineering Technology (Mechanical Engineering)



6.8.3 Program Mapping

The Master of Engineering Technology (Mechanical Engineering) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 15. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 15. Course description can be accessed through each courses Moodle shell.

		Engineers Australia (EA) competency mapping of all co	ourses	at th	e pro	ogra	m le	vel												
		Master of Engineering Technology (Mechan	ical En	gine	ering	;)														
Year	Year Semester	Courses	Kn	owl	edg Ba	e ar se	nd S	kill	Er Aj	ngin ppli Ab	eer cati ility	ing on	Professional and Personal Attributes							
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6		
		ENGIN2301: Mechanics of Solids	\checkmark	~	✓				×	✓				×						
	Somostor 1	ENGIN3302: Introduction to Vibration Analysis	×	~	✓	~		1	×	~	~			 Image: A second s		1				
	Semester I	ENGIN3404: System Dynamics and Control	\checkmark	~	✓		1		1	✓	✓									
Voor 1	_	ENGIN5302: Modelling and Simulation	× .	~	×	1			×	\checkmark	✓			✓						
Teal I		ENGIN3001: Engineering Research Methodology and Management	\sim	~	✓	~	1	1	1	1		~		×		~				
	Comostor 2	ENGIN3304: Thermodynamics	×	~	×	~			1	~	1			×						
	Semester 2	ENGIN5304: Advanced Robotics	× .	~	1	~	~	1	1	1	1	~	1	×	1	~	1	1		
		MREGC5003: Industrial Techniques in Maintenance Management		~	~	4	1	1	1	1		~	~	×	×	~	1			
		ENGIN4301: Machine Dynamics and Vibration	×	~	~	~	~	×	~	~	~	~	~	✓	×	~	1	~		
	Semester 1	ENGIN5301: Machine System Design	× .	~	×	~	~	×	~	~	1	~	✓	✓		~	1	1		
Voor 2		ENGIN5002: Advanced Engineering Project 1	×	~	✓	~	~	~	~	 ✓ 	~	~	~	 ✓ 	~	~	1	~		
rear 2		ENGIN4302: Energy Conversion	× .	~	1			1	1	~	~			1		~				
	Semester 2	ENGIN5405: Advanced Control Systems Engineering	×	~	1		1		~	~	~									
		ENGIN5003: Advanced Engineering Project 2	×	~	×	1	1	1	1	~	~	~	~	×	1	~	1	1		

Figure 15: Engineers Australia (EA) stage 1 competency mapping of the Master of Engineering Technology (Mechanical Engineering) program



6.9 Master of Engineering Technology (Mechatronics and Industrial Automation)

6.9.1 Program Information

The Master of Engineering Technology (Mechatronics and Industrial Automation) aims to build on the undergraduate knowledge and skill sets in mechatronics and robotic engineering to produce professional engineers with in-depth knowledge across the interdisciplinary domain of automation, which encompasses key components of mechanical and electrical engineering supported by strong background in computing and software engineering. The program provides a pathway for students who already hold a 3 Year Bachelor of Engineering cognate degree to become a Professional Engineer. The proposed program structure provides a balance in knowledge and skills between the three key areas of mechanical, electrical and computer engineering with strong focus on project based and multidisciplinary learning. The project-based courses, enable students to bring their multidisciplinary knowledge together to learn and understand mechatronics as a discipline. The program aims to facilitate students achieving professional engineering competencies in project management, teamwork, leadership, problem-solving, communication and research.

A summary of the program information is provided in Table 16.

 Table 16: Program information summary for the Master of Engineering Technology (Mechatronics and Industrial Automation).

Information is correct as at	January 2022
Program Code	EY9.MIA
AQF Equivalent	9
Locations and Modes of Delivery	Gippsland (Face-to-Face)
Duration	2 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is provisionally accredited by Engineers Australia.

6.9.2 Program Structure and Areas of Study

You will be required to undertake 14 courses totalling to 240 credit points for successful completion of the Master of Engineering Technology (Mechatronics and Industrial Automation) degree. The program structure is given in Table 17. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information.

Due to the multidisciplinary nature of mechatronics as a discipline, the Master of Engineering Technology (Mechatronics Systems Engineering) program caters to students who has successfully completed an undergraduate degree in the areas of mechatronics engineering, mechanical engineering, electrical and



electronic engineering and software and computer science and engineering. The electives in Table 17, thus, have been carefully selected and grouped in the structure to academically support students coming from different backgrounds in their undergraduate degree. This approach will ensure that each student has the requisite knowledge to succeed in the proposed Master of Engineering Technology (Mechatronics and Industrial Automation) program. Selection of appropriate elective is, thus, critical to gain maximum student experience. It is, therefore, strongly recommended, students discuss with their <u>program coordinator</u> before choosing the elective.

Four scenarios are briefly described below to guide you to select the right elective.

- <u>Scenario 1</u> Students coming from mechanical engineering background would be expected to have limited knowledge on the electronics domain of the mechatronics discipline. It would be expected that students from this discipline would require further pre-requisite knowledge and skills in courses related to advanced electrical drives. To overcome such a challenge, this group of students would be elect to study electives M1, M2 and M3 (Table 17).
- <u>Scenario 2</u> Students coming from electrical, electronics, software and computer science engineering backgrounds would be expected to have limited knowledge of the mechanical domain of the mechatronics discipline. They would be expected to develop their pre-requisite knowledge and skills in courses such as advanced robotics and advanced mechatronic systems design. To overcome this challenge, this group of students would elect to study electives E1, E2 and E3 (Table 17).
- <u>Scenario 3</u> Students coming from mechatronics engineering background would be expected to select the elective that would prepare them best to undertake advanced mechatronics courses in Year 2.
- <u>Scenario 4</u> All students would select from general electives G1 and G2 (Table 5) to further enhance their knowledge in either programming, control, sensors, embedded systems, or image processing.

The program covers three major thematic areas, including (i) robotics and automation, (ii) mechatronic systems design and control, and (iii) design, project, and practice. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 16.

6.9.3 **Program Mapping**

The Master of Engineering Technology (Mechatronics and Industrial Automation) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 17. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 17. Course description can be accessed through each courses Moodle shell.



Table 17: Program structure of Master of Engineering Technology (Mechatronics and Industrial Automation).

Year 1 – Common Foundation Year												
	Semester 1				Semester 2							
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF					
Elective E1 El	ective M1	15	-	Elective E3	Elective M3	15	-					
Elective E2 El	ective M2	15	-	Elective G2		15	-					
Elective G1	-	15	-	ENGIN5208	Sustainable Engineering Practice	15	9					
ENGIN5205	Engineering Project Management	15	9	ENGIN5001	Research and Quantitative Methods	15	9					
		`	Year 2									
	Semester 1		T		Semester 2	1						
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF					
ENGIN5401	Advanced Mechatronic Systems Design	15	9	ENGIN5403	Advanced Industrial Robotic Systems	15	9					
ENGIN5402	Actuators and Drives in Mechatronic Systems	15	9	ENGIN5405	Advanced Control Systems Engineering	15	9					
ENGIN5002	Advanced Engineering Project 1	30	9	ENGIN5003	Advanced Engineering Project 2	30	9					
Total Credit Po	oint: 240											
	Elective E1		1		Elective M1							
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF					
ENGIN3402	Mechatronics Components Design	15	7	ENGIN2401	Analog and Digital Electronics	15	7					
	Elective E2				Elective M2							
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF					
ENGIN4401	Industrial Robotic Systems	15	8	ENGIN2402	Measurement and Computer Instrumentation	15	7					
	Elective E3				Elective M3							
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF					
ENGIN3406	Intelligent Mechanisms Design	15	7	ENGIN2404	Electrical and Electronic Drives and Actuators	15	7					
		Ele	ctive G	1								
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF					
ENGIN2403	Fluid and Pneumatic Control	15	7	ENGIN3403	Sensors & Artificial Perception	15	7					
ENGIN3401	Engineering Computer Applications & Interactive Modelling	15	7	ENGIN3404	System Dynamics & Control	15	7					
		Ele	ctive G	2								
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF					
ENGIN3405	Digital Imaging & Artificial Intelligence	15	7	ENGIN4002	Digital and Embedded Systems	15	8					





Figure 16: Progression mapping across different years and distribution of thematic areas within the Master of Engineering Technology (Mechatronics and Industrial Automation) program.

	Engineers Australia (EA) competency mapping of all courses at the program level																		
	Master of Engineering Technology (Mechatronics Systems Engineering)																		
Year	Semester	Courses	Knowledge and Skill Base						En Aj	ngin pplio Abi	eeri catio ility	ing on	Professional and Personal Attributes						
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6	
		Elective Specialisation																	
	Somostor 1	Elective Specialisation																	
	Semester I	Elective Specialisation																	
Voor 1		ENGIN5205: Engineering Project Management Theory				~	~	~				×	× .	~	~		×	×	
Teal 1		Elective Specialisation																	
	Comostor 2	Elective Specialisation																	
	semester z	ENGIN5001: Research and Quantitative Methods	~	~	~	~	~	~	×	✓		×		~	×	× .			
		ENGIN5208: Sustainable Engineering Practice			~		×		×	×	~	1	× .	~	×	× .	× .		
		ENGIN5401: Advanced Mechatronic Systems Design	~	~	~	~	~	~	1	✓	~	1		~	~				
	Semester 1	ENGIN5402: Actuators and Drives in Mechatronic Systems	~	~	1	~	1	1	1	1	1	1	× .	~	~	×	~	×	
Veer 2		ENGIN5002: Advanced Engineering Project 1	~	~	~	~			×	×	~	1		~	×	× .			
rear z		ENGIN5403: Advanced Industrial Robotic Systems	~	~	~	~	~	~	1	✓	~	1	× .	~	~	×	~	~	
	Semester 2	ENGIN5405: Advanced Control Systems Engineering	~	×	×		×		×	×	~								
		ENGIN5003: Advanced Engineering Project 2	~	~	~	~			1	✓	~	1		~	~	1			

Figure 17: Engineers Australia (EA) stage 1 competency mapping of the Master of Engineering Technology (Mechatronics and Industrial Automation) program.



6.10 Master of Engineering Technology (Mining Engineering)

6.10.1 Program Information

The Master of Engineering Technology (Mining Engineering) is open to the graduates of the Bachelor of Engineering Technology degrees in mining engineering and Graduate Diploma of Mining Engineering from both domestics and overseas institutions. The program is fully accredited by Engineers Australia and aligns with Engineers Australia's Stage 1 Competencies at the Professional Engineering level. Through this program, participants experience theoretical and practical learning, acquire advanced skills to synthesise, analyse and design various physical engineering systems; employ mathematical and computational techniques; understand and appreciate ethical, social, and environmental contexts of the field; research and critically assess relevant information; and effectively communicate technical and theoretical content Participants in the Masters program build on their undergraduate knowledge base to venture in advanced technical and professional domains in such vital areas of mining engineering as mine planning, rock fragmentation, mine ventilation, etc. Moreover, participants enrolled in this program work on industry-relevant projects both independently and in teams.

A summary of the program information is provided in Table 18.

Table 18: Program information summary for the Master of Engineering Technology (Mining Engineering).

Information is correct as at	January 2022
Program Code	EY9.MIN
AQF Equivalent	9
Locations and Modes of Delivery	Mount Helen (Face-to-Face), Online
Duration	2 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is fully accredited by Engineers Australia.

6.10.2 Program Structure and Areas of Study

You will be required to undertake 14 courses totalling to 240 credit points for successful completion of the Master of Engineering Technology (Mining Engineering) degree. The program structure is given in Table 19. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information. The program covers five thematic areas, including (i) advanced mine planning, (ii) hard rock excavation, (iii) environmental engineering, (iv) mineral reserve, (v) surveying and (vi) research project. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 18.



	Ŷ	ear 1 – C	ommon F	Foundation Ye	ar		
	Semester 1				Semester 2		
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF
ENGIN3501	Underground Production Systems	15	7	ENGIN2503	Rock Mechanics Applications	15	7
ENGIN3502	Subsurface Environmental Engineering	15	7	ENGIN3503	Surface Mining Operations And Equipment	15	7
ENGIN5511	Mine Surveying	15	8	ENGIN3001	Engineering Research Methodology & Management	15	8
ENGIN5514	Production Drilling and Blasting	15	8	ENGIN5503	Advanced Mine Ventilation	15	9
			Year	2			
	Semester 1				Semester 2		
Course ID	Title	Credit Point	AQF	Course ID	Title	Credit Point	AQF
ENGIN5505	Mine Planning and Scheduling	15	9	ENGIN5501	Mine Safety And Environmental Engineering	15	9
ENGIN5507	Ore Reserve Estimation	15	9	ENGIN5508	Smart Engineering Technologies	15	9
ENGIN5002	Advanced Engineering Project I	30	9	ENGIN5003	Advanced Engineering Project II	30	9
		Tota	Credit F	Points: 240			

Table 19: Program structure of Master of Engineering Technology (Mining Engineering).



Figure 18: Progression mapping across different years and distribution of thematic areas within the Master of Engineering Technology (Mining Engineering) program.



6.10.3 Program Mapping

The Master of Engineering Technology (Mining Engineering) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 19. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 19. Course description can be accessed through each courses Moodle shell.

	Engineers Australia (EA) competency mapping of all courses at the program level																			
		Master of Engineering Technology (Mining	Engin	eeri	ing)															
Year	Semester	Courses	Knowledge and Skill Base							ngin ppli Ab	eeri cati ility	ing on	Professional and Personal Attributes							
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6		
		ENGIN3501: Underground Production Systems	× .	\checkmark	✓	~	✓		~					\checkmark						
	Comoctor 1	ENGIN3502: Subsurface Environmental Engineering	× -	1	\checkmark			1	~	~	✓			\checkmark						
	Semester 1	ENGIN5511: Mine Surveying	× -	\checkmark	\checkmark	~		\checkmark	~	1	\checkmark	\checkmark		\checkmark		\checkmark	× .			
Voor 1		ENGIN5514: Production Drilling and Blasting	× .	~	✓		~	~	~	1	×				× .		× .			
Teal I		ENGIN2503: Rock Mechanics Applications	× .	~	1	1	×	~	~	~	~		× .	×		1	× .	1		
	C	ENGIN3503: Surface Mining Operations and Equipment	× .	~	~		~	~	~		~			~	× .	1	× .			
	Semester 2	ENGIN5503: Advanced Mine Ventilation	× .	~	✓	~	~	~	~	~	~	~	× .	✓		1	× .			
		ENGIN3001: Engineering Research Methodology and Management	× .	~	✓	~	~	~	~	~	~	~	~	✓	× .	1	× .	 Image: A second s		
		ENGIN5505: Mine Planning and Scheduling	×	~	✓	~	×	~	1	~	1	~	× .	✓	× .	1	× .			
	Semester 1	ENGIN5507: Ore Reserve Estimation	×	~	✓	~	~	~	~	 ✓ 	~		× .	✓		1				
¥2		ENGIN5002: Advanced Engineering Project 1	× .	~	✓	~	✓	~	~	 ✓ 	~	~	~	✓	×	1	× .	 Image: A second s		
rear 2		ENGIN5501: Mine Safety and Environmental Engineering	×			1	1	~	1	×	1	~	×	1	\checkmark	1	1	1		
	Semester 2	ENGIN5508: Smart Engineering Technologies	× .	×	×	~	×	~	~	~	×	~	× .	×	\checkmark	1	×			
		ENGIN5003: Advanced Engineering Project 2	× -	~	~	~	×	~	~	~	×	~	×	~	\checkmark	1	1	1		

Figure 19: Engineers Australia (EA) stage 1 competency mapping of the Master of Engineering Technology (Mining Engineering) program.



6.11 Master of Engineering Technology (Renewable Energy and Electrical Power Systems)

6.11.1 Program Information

There is a world-wide movement away from the use of fossil fuels and an increase in demand for energy. Many countries, including Australia, are aiming to reduce greenhouse gas emissions which in turn is leading to the growing use of renewable energy sources. Hence, grid integration of these sources is important and how to successfully integrate them into a local distribution network has attracted much attention. This unique program structure would help students to prepare to make their mark not only in Australia, but also globally, where automation, IoT, smart grid and renewable energy are focus of the industries and countries worldwide. The program would provide versatility and depth of understanding necessary to deal with new and challenging problems within the renewable energy area. The graduates should be imaginative, creative, effective problem solvers, able to implement change, as well as providing technical and managerial leadership.

A summary of the program information is provided in Table 20.

 Table 20: Program information summary for the Master of Engineering Technology (Renewable Energy and Electrical Power Systems).

Information is correct as at	January 2022
Program Code	EY9.EPS
AQF Equivalent	9
Locations and Modes of Delivery	Mt Helen (Face-to-Face)
Duration	2 years full time equivalent
Fees	Fees are subject to change annually. Please refer to the <u>course website</u> .
Accreditation Status	This degree is provisionally accredited by Engineers Australia.

6.11.2 Program Structure and Areas of Study

You will be required to undertake 14 courses totalling to 240 credit points for successful completion of the Master of Engineering Technology (Renewable Energy and Electrical Power Systems) degree. The program structure is shown in Table 21. The course outlines can be accessed through clicking the hyperlink associated with each course ID. Please also refer to <u>credit transfer</u> and <u>transition arrangement</u> sections for more information should you wish to apply for credit.

The program covers three thematic areas, including (i) renewable energy and power electronic systems, (ii) power and energy systems, and (iv) design, project, and practice. The course distribution within each of these areas and the progression mapping across different years is presented in Figure 20.



Table 21: Program structure for Master of Engineering Technology (Renewable Energy and Electrical Power Systems).

				Year 1											
	Semester 1				Semester 2										
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF								
ENGIN3101	Power Electronic	15	7	ENGIN2103	Principles of Renewable Energy Sources	15	7								
ENGIN3102	Power System Analysis	15	7	ENGIN5101	loT in Smart Energy Systems	15	9								
ENGIN3403	Sensors and Artificial Perception	15	7	ENGIN5405	Advanced Control Systems Engineering	15	9								
ENGIN5205	Engineering Project Management Theory	15	9	ENGIN5001	Research and Quantitative Methods	15	9								
	Year 2														
	Semester 1				Semester 2										
Course	Title	Credit Point	AQF	Course	Title	Credit Point	AQF								
<u>ENGIN4101</u>	Electrical Power Distribution Engineering	15	8	ENGIN4102	Power Electronic Application to Renewable Energy Systems	15	8								
ENGIN5102	Micro-Grid and Energy Storage Systems	15	9	ENGIN5103	Electrical Demand Forecasting and Management	15	9								
ENGIN5002	Advanced Engineering Project 1	30	9	ENGIN5003	Advanced Engineering Project 2	30	9								
		-	Total Cr	edit Point: 24	0										

Year 2 Semester 2	Renewable Energy and Power Electronic Systems Power Electronic Application	Power and Energy Systems ENGIN5103 Electrical Demand Forecast and Management	Design, Project and Practice ENGIN5003 Advanced Engineering Project 2
Year 2 Semester 1	ENGIN5102 Micro-Grid and Energy Storage Systems	ENGIN4101 Electrical Power Distribution Eningeering	ENGIN5002 Advanced Engineering Project
Year 1 Semester 2	ENGIN5405 Advanced Control Systems Engineering Energy Sources	ENGIN5101 IOT in Smart Energy Systems	ENGIN3001 Research Methodology
Year 1 Semester 1	ENGIN3403 Sensors and Artificial Perception Perception	ENGIN3102 Power System Analysis	ENGIN5205 Engineering Project Management Theory

Figure 20: Progression mapping across different years and distribution of thematic areas within the Master of Engineering Technology (Renewable Energy and Electrical Power Systems) program.



6.11.3 Program Mapping

The Master of Engineering Technology (Renewable Energy and Electrical Power Systems) program aligns with Engineers Australia (EA) stage 1 competency standards in the areas of: (i) knowledge and skill base, (ii) engineering application ability, and (ii) professional and personal attributes. Details of EA stage 1 competency standards for professional engineers can be located <u>here</u>. The competency mapping for all the courses within the program is presented in Figure 21. Detailed competency mapping of each course can be found in the course outline and course description. The course outlines can be accessed via the hyperlink associated with each course ID in Table 21. Course description can be accessed through each courses Moodle shell.

		Engineers Australia (EA) competency mapping of all co	ourses at	the	prog	ram I	evel	6)										
		Master of Engineering Technology (Renewable Energy a	nd Electr	ical	Powe	er Sys	stem	s)										
Year	Semester	Courses	Kr	now	ledg Ba	e an Ise	d Sł	kill	EI A	ngin ppli Ab	eeri cati ility	ng on	Ρ	Prof ersc	essi onal	onal Attri	and	1 es
			1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	3.5	3.6
		ENGIN3101: Power Electronics	1	1	1	1	1	1	~	1	~	1						
	Semester 1	ENGIN3102: Power System Analysis	1	1	1		1		~	1								
	Semester 1	ENGIN3403: Sensors and Artificial Perception	~	1	1				~	1	~							
Voor 1		ENGIN5205: Engineering Project Management Theory				~	1	1				1	1	~	1		1	1
Teal 1		ENGIN2103: Principles of Renewable Energy Sources	-	1	1		1	~	~	~	1							
	Somostor 2	ENGIN5001: Research and Quantitative Methods	~	~	1	~	~	~	~	~		~		~	1	1		
	Semester 2	ENGIN5101: IoT in Smart Energy Systems	~	~	1	~	~	1	~	~	~					1		
		ENGIN5405: Advanced Control Systems Engineering	1	1	1		~		~	~	1				0			
		ENGIN4101: Electrical Power Distribution Engineering	1	1	1		~		1	1	1							
	Semester 1	ENGIN5002: Advanced Engineering Project 1	~	1	1	1	1	1	1	1	1	1	~	1	~	1	1	~
Veen 2		ENGIN5102: Micro-Grid and Energy Storage Systems	~	1	1	~	~	~	~	1	1					1		
rear 2		ENGIN4102: Power Electronic Application to Renewable Energy Systems	~	1	1	1	1	1	1	1	1	-	-					
	Semester 2	ENGIN5003: Advanced Engineering Project 2	~	1	1	1	1	1	1	1	1	1	~	1	1	1	1	1
		ENGIN5103: Electrical Demand Forecasting and Management	~	1	1	1	1		1	1	1	1				1		

Figure 21: Engineers Australia (EA) stage 1 competency mapping of the Master of Engineering Technology (Renewable Energy and Electrical Power Systems) program.



7 Professional Practice for Bachelor of Engineering (Honours) Degrees

As a requirement for the award of the degree of **Bachelor of Engineering (Honours)**, students are required to obtain at least twelve (12) weeks of cognate professional experience. The professional experience must achieve the following objectives:

- Expose students to industrial/technical environment in order to appreciate the various activities associated with engineering in industry.
- Allow the student to observe and undertake tasks in practical aspects of investigation, design and construction of engineering works that correlates to theoretical studies.
- Instil confidence in the student to take up positions that require responsibility, motivation, decision making and communication with other people in the marketplace.

To undertake the professional practice experience, students can either engage in industry work placements or any equivalent activities that meet the course objectives and learning outcomes.

Students should enrol in the zero-credit point <u>ENGIN2001 (Professional Practice)</u> course for the session immediately after completing the 12 weeks of professional experience. Course details can be found through the course handbook available through the Moodle shell.

<u>Program Coordinators</u> would be the main point of enquiry for the students associated with professional practice requirements and the course ENGIN2001.

It is the student's own responsibility to make every possible effort to search, facilitate and complete the professional practice experience.



8 Communication and Online Technology

8.1 Moodle

Moodle is the official learning management system for Federation University Australia. More information on how to access Moodle and obtain online support, please <u>click here</u>.

8.2 Student email

All Federation University Australia students are provided with a free email account. Student emails are an important part of university life. Your student email account will be used to communicate with lecturers, teachers, other students. You will also receive important student information regarding exams, Moodle updates, important dates, re-enrolment, and fee invoices.

Student email can be accessed directly using the <u>Federation University Office 365 login page</u> or via the <u>Federation University Australia website home page</u> by selecting "Email" from the "Students" menu at the top of the page.

8.3 Study Online Resources

We know that some students will be used to studying online, and for others it will be a completely new experience. We also understand that the technology and online study skills you will use while you study may be different to those you are using at home or work. That's why we have put together a few resources to help you feel comfortable studying online with us. More information can be located <u>here</u>.

8.3.1 Introduction to studying online booklet

This booklet is designed to help introduce you to the technology that you will come across as you commence study with us here at Federation University. Here you will find useful terminology, an overview of the university systems, and information about resources you can use to help learn more. Click here to access the booklet.

8.4 Microsoft Teams

Information on Microsoft Teams can be located under online platform resources page.

8.5 Adobe Connect

'Adobe Connect' is virtual classroom software, to support synchronous learning and teaching activity between educators and students. Access is provided through your Moodle course page. A Moodle support course is available with user guides, test links and technical support to assist you in connecting virtually.

9 Academic Integrity

Academic integrity is behaving honestly, responsibly, and respectfully in our academic endeavours. We demonstrate integrity in our study by producing our own, original work and by properly acknowledging when we use the work of others to inform ours. Whether accidental or deliberate, using the work of others without acknowledgement constitutes a breach of academic integrity. Other forms of cheating include but are not



limited to collusion, plagiarism and using free or paid services to produce academic work, which is known as contract cheating. The Academic Integrity Module (AIM) introduces you to the skills you need to demonstrate academic integrity, such as referencing and paraphrasing. All students at Federation University are required to complete AIM prior to submitting their first assessment task in their program of study. Refer to the following:

- (i) <u>Academic Integrity Module (AIM)</u>
- (ii) <u>Academic Integrity Policy</u>
- (iii) <u>Study Skills website: Academic integrity</u>

10 Performance and Assessment

10.1 Assistance with Online Submission

Students are often asked to submit assignments online, mostly through the course Moodle shell. You may be required to submit via Turnitin, which is similarity-checking software. Difficulty with online submission can have numerous causes, such as not completing the <u>Academic Integrity Module (AIM)</u>; unreliable internet connection; or an oversized file. If you experience difficulties ensure you have completed <u>AIM</u>, and refer to the following guides about online submission: (i) <u>submitting assignments online</u>, and (ii) <u>Turnitin</u>.

10.2 Assistance with study skills and assessment

The Federation University <u>Study Skills website</u> contains practical advice on improving your reading and writing skills, paraphrasing, and referencing, and time management. It also provides advice about learning technology and connecting with Student Academic Leaders and <u>Learning Skills Advisors</u> to support your academic skill development.

10.3 Final Test Eligibility

To be eligible to sit for the final test a student must have undertaken and submitted at least one prior assessment task (worth more than 10%) for the course.

10.4 Results

Results from your assessments are available on your course Moodle site and can be viewed in fdlmarks. Further information can be located <u>here</u>.

11 Extensions

11.1 Late Assignment

For all assessment items handed in after the official due date without an agreed extension, a 10% penalty will be applied to the total mark for each day (or part thereof) late after the due date (including weekends and public holidays).



11.2 Special Consideration

If students are adversely affected by life circumstances a discretionary assessment extension of up to five University working days for one assessment task may be granted at the discretion of the tutor, lecturer, or course coordinator (dependent on school process) upon a direct request by the student via the Discretionary Assessment Extension form. If, however, a student has experienced or encountered some form of disadvantage or impediment (medical reasons; hardship/trauma; compassionate grounds; other significant cause) in more than one course and requires more than five working days' extension, then they are advised to apply for Special Consideration. Information on Discretionary Assessment Extensions and Special Consideration, including access to the policy, procedures, or associated forms can be located <u>here</u>. Additional information can also be located <u>here</u>. The <u>Student Advocacy</u> can help you if you need assistance with applying for Special Consideration or appealing an outcome.

12 Plagiarism and Academic Misconduct

The University takes cases of plagiarism very seriously. You will receive a letter from your Institute, explaining that they think you may have plagiarised and containing any evidence they can provide. You can appeal the charge and attend a hearing.

There are a range of reasons why you may receive a letter about misconduct. Your Institute will send you a letter outlining what has happened and any evidence they can provide. It is important to read through this letter carefully and understand what has been included.

More information can be located here.

The <u>Student Advocacy</u> can help you guiding through these processes also help you prepare for your hearing.

13 Appeals

You may be able to appeal a University decision or ask for it to be reviewed. Students should generally follow the internal processes (<u>Student Appeal Procedure</u>) before pursuing an external appeal or complaint. Not all University decisions can be appealed, so please contact <u>Student Advocacy</u> if you are unsure. For more information about different appeal types:

- (i) Final Grade Appeal
- (ii) <u>Appealing a notice of suspension or exclusion (unsatisfactory progress)</u>
- (iii) <u>Appeal to Appeals Committee</u>
- (iv) <u>External Appeal</u>

14 Student Essentials

Federation University Australia have wide range of resources available to support student learning. The link <u>here</u> provides you information related to student administration including important dates, re-enrolment, fees, results, and special consideration.



15 Study Support

Federation University Australia provides you many study supports and resources to help you with your study and improve your academic skills. Details can be located <u>here</u>.

16 Library Services

The <u>Federation University Australia Library</u> provide a range of high-quality scholarly information resources and services to the Federation University community. The library has a wide range of resources available for the student to avail. Details can be located <u>here</u>.

17 Student Support Services and Information

Federation University Australia provides you with a range of support services to help with your university life. You can access services including counselling, health services, financial support and much more. Details are located <u>here</u>.

The Disability and Learning Access Unit (DLAU) makes reasonable adjustments to study requirements for students with a disability, medical or mental health condition. This can be a temporary or permanent condition. The DLAU can also organise adjustments for people who are caring for someone with a disability. Details can be located <u>here</u>.

17.1 Student Complains and Concerns

Federation University Australia takes all student complains and concerns very seriously and aims to resolve them in a transparent, consistent, fair and timely manner. Detailed information can be located <u>here</u>.

17.2 Credit Transfer

Federation University Australia recognizes students' prior learning completed at different institutions or when students change programs within the University. Students may apply to transfer credit for previously completed courses to the new program. The rules for credit transfer are governed by Federation University Australia's <u>academic credit transfer policy</u>. Students who wish to apply for credit are first advised to consult their respective Program Coordinators. The <u>Student HQ</u> can assist with the credit transfer process.

17.3 Transition Arrangement

Federation University Australia's programs are regularly reviewed and updated. As of such, students may experience changes to their study plans during their course of study and require transition arrangements. Students should consult their relevant <u>Program Coordinators</u> for a transition arrangement should their study plans be affected by updates in the program.



18 Student Life

Federation University Australia provide events and activities both on campus and online, along with a whole variety of ways to get involved in university life. Our student life opportunities will help you meet new friends and learn new skills. Details can be located <u>here</u>.

19 Careers and Employability

The Federation University Australia's Careers and Employability team prepare domestic and international Federation University students for part-time and professional employment opportunities regionally, nationally, and globally. More information can be located <u>here</u>.