

SUSTAINABILITY ENGINEERING, TESTAMUR MAJOR (T129)

Western Sydney University Major Code: T129

Previous Code: MT3050.1

Available to students in other Western Sydney University programs?

No

Engineers are leaders in developing novel approaches to solving the biggest challenges faced by environmental and interrelated systems. In this Major, students assess the impact of industrial development then propose design solutions using holistic, futuristic and sustainable technologies and strategies. Through hands-on, real-life projects, students explore solutions that integrate technical, technological (IoT), social, cultural, geographical, regulatory and ethical factors particularly in relation to water, air and land. This major will benefit students aiming for careers such as Environmental Engineer/Scientist/Consultant, Natural Resources Manager, Waste Engineer/Manger/ Consultant, and Sustainability Engineer/ Manager/ Consultant. All students complete a mandatory industrial placement.

Location

Campus	Mode	Advice	Credit Points
Parramatta Campus - Victoria Road	Internal	Program Advice (edbe@westernsydney.edu.au)	10
Parramatta City Campus-Macquarie Street	Internal	Program Advice (edbe@westernsydney.edu.au)	10
Penrith Campus	Internal	Program Advice (edbe@westernsydney.edu.au)	10

Recommended Sequence 2022-23

If you commenced in 2024 or later please refer to the Sequence 2024 tab for details.

This major is included in Bachelor of Engineering Science, Bachelor of Engineering (Honours), Bachelor of Engineering Advanced (Honours) and Bachelor of Engineering (Honours)/Bachelor of Business.

Please follow the recommended sequence for your course as noted below.

Select the link for your program below to see details of the major

Bachelor of Engineering (Honours)

Qualification for this award requires the successful completion of 320 credit points, which include the subjects listed in the recommended sequence below.

*** All students undertaking the Bachelor of Engineering (Honours) are required to enrol in MATH 1021 Mathematics for Engineers Preliminary and undertake a readiness test at the beginning of their study.**

The readiness test will be conducted at the beginning of the first semester of enrolment and the result will be used to determine whether a student will remain in MATH 1021 Mathematics for Engineers Preliminary or be transferred by the School to MATH 1016 Mathematics for Engineers 1.

Students remaining in MATH 1021 Mathematics for Engineers Preliminary will be required to complete MATH 1016 Mathematics for Engineers 1 during second semester and will be encouraged to complete MATH 1019 Mathematics for Engineers 2 during the Summer session.

Start-year intake

Course	Title	Credit Points
Year 1		
Autumn session		
ENGR 1011	Engineering Physics	10
ENGR 1050	Sustainable Engineering Fundamentals	10
ENGR 1024	Introduction to Engineering Practice	10
Select one of the following:		10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
	Credit Points	40
Spring session		
ENGR 1018	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
Select one elective		10
• Elective can be any Level for Year 1 Elective		
Select one of the following:		10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
	Credit Points	40
Year 2		
Autumn session		
CIVL 1001	Surveying for Engineers	10
CIVL 2003	Fluid Mechanics	10
ELEC 1006	Engineering Computing	10
EART 2001	Climate Change Science	10
	Credit Points	40
Spring session		
CIVL 3011	Hydraulics	10
ENGR 2032	Sustainability Analysis and Design	10
CIVL 2018	Water Supply Systems Design	10
Select one elective		10
• Elective must be Level 2 or higher		
	Credit Points	40
Year 3		
Autumn session		
CIVL 4017	Surface Water Hydrology	10
PROC 2003	Materials Selection and Design	10
ENVL 3005	Planning the City: Development, Community and Systems	10
One Alternate Subject		10
	Credit Points	40
Spring session		
ELEC 3010	Renewable Energy Systems Design	10
CIVL 3019	Wastewater Systems Design	10
CIVL 4021	Sustainable Waste Engineering	10
One Alternate Subject		10
Industrial Experience		

ENGR 3017	Industrial Experience (Engineering)	0	Equivalent Subjects
	Credit Points	40	The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.
Year 4			
Autumn session			
ENGR 4025	Final Year Project 1 (UG Engineering)	10	ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering
ENGR 4034	Climate Smart Engineering	10	
One Alternate Subject		10	
Select one elective		10	
• Elective subject must be Level 2 or higher			
	Credit Points	40	
Spring session			
ENGR 4035	Smart and Liveable Cities	10	CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering
ENGR 4026	Final Year Project 2 (UG Engineering)	10	
One Alternate Subject		10	
Select one elective		10	
• Elective subjects must be Level 2 or higher			
	Credit Points	40	
	Total Credit Points	320	
Alternate Subjects			
Subject	Title	Credit Points	
PROC 4001	Advanced Materials Topics	10	
PROC 4002	Engineering Materials from Waste	10	
PROC 1008	Introduction to Materials Engineering	10	
PROC 3008	Materials Processing and Applications	10	
Modern Digital Design and Development (not yet available)		10	
Digital Manufacturing and IIoT (not yet available)		10	
Design for Advanced Manufacturing (not yet available)		10	
HUMN 1013	Contextualising Indigenous Australia (Day Mode)	10	
Only three subjects may be chosen from the following			
CEDS 3001	Bridging the Gap: Re-engaging Indigenous Learners	10	
PERF 2011	From Corroborees to Curtain Raisers (Day Mode)	10	
VISU 2003	From Ochre to Acrylics to New Technologies	10	
HUMN 1058	Indigenous Landscapes	10	
WELF 3008	Learning through Indigenous Australian Community Service (Day Mode)	10	
HUMN 2038	Pigments of the Imagination	10	
HUMN 2048	Revaluing Indigenous Economics (Day Mode)	10	
HUMN 3070	Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)	10	
HUMN 3082	The Making of the 'Aborigines'	10	
Alternate subjects may be used to complete one of the minors listed below.			
Indigenous Australian Studies, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/indigenous-australian-studies-minor/)			
Materials Engineering, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/materials-engineering-minor/)			
Advanced Manufacturing, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/advanced-manufacturing-minor/)			
Equivalent Subjects			
The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.			
ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering			
Replaced Subjects			
The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.			
CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering			
Mid-year intake			
Course	Title		Credit Points
Year 1			
Spring session			
Select one of the following:		10	
MATH 1021 Mathematics for Engineers Preliminary			
MATH 1016 Mathematics for Engineers 1			
ENGR 1018 Fundamentals of Mechanics		10	
ELEC 1003 Electrical Fundamentals		10	
ENGR 1024 Introduction to Engineering Practice		10	
Credit Points			
Autumn session			
Select one of the following:		10	
MATH 1016 Mathematics for Engineers 1			
MATH 1019 Mathematics for Engineers 2			
CIVL 2003 Fluid Mechanics		10	
ENGR 1011 Engineering Physics		10	
ENGR 1050 Sustainable Engineering Fundamentals		10	
Credit Points			
Year 2			
Spring session			
ENGR 2032 Sustainability Analysis and Design		10	
CIVL 2018 Water Supply Systems Design		10	
CIVL 3011 Hydraulics		10	
Select one elective		10	
• Elective unit must be Level 2 or higher			
Credit Points			
Autumn session			
CIVL 1001 Surveying for Engineers		10	
EART 2001 Climate Change Science		10	
ELEC 1006 Engineering Computing		10	
Select one elective		10	
• Elective unit must be Level 2 or higher			
Credit Points			
Year 3			
Spring session			
ELEC 3010 Renewable Energy Systems Design		10	
CIVL 3019 Wastewater Systems Design		10	
CIVL 4021 Sustainable Waste Engineering		10	
One alternate subject		10	
Credit Points			

Autumn session

CIVL 4017	Surface Water Hydrology	10
PROC 2003	Materials Selection and Design	10
ENVL 3005	Planning the City: Development, Community and Systems	10
One alternate subject		10
Industrial Experience		
ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	40

Year 4**Spring session**

ENGR 4025	Final Year Project 1 (UG Engineering)	10
ENGR 4035	Smart and Liveable Cities	10
Select one elective		10
One alternate subject		10

- Elective unit must be Level 2 or higher

	Credit Points	40
Autumn session		
ENGR 4026	Final Year Project 2 (UG Engineering)	10
ENGR 4034	Climate Smart Engineering	10
Select one elective		10
One alternate subject		10

- Elective unit must be Level 2 or higher

	Credit Points	40
	Total Credit Points	320
Alternate Subjects		
Subject	Title	Credit Points
PROC 4001	Advanced Materials Topics	10
PROC 4002	Engineering Materials from Waste	10
PROC 1008	Introduction to Materials Engineering	10
PROC 3008	Materials Processing and Applications	10
Modern Digital Design and Development (not yet available)		10
Digital Manufacturing and IIoT (not yet available)		10
Design for Advanced Manufacturing (not yet available)		10
HUMN 1013	Contextualising Indigenous Australia (Day Mode)	10

Only three subjects may be chosen from the following

CEDS 3001	Bridging the Gap: Re-engaging Indigenous Learners	10
PERF 2011	From Corroborees to Curtain Raisers (Day Mode)	10
VISU 2003	From Ochre to Acrylics to New Technologies	10
HUMN 1058	Indigenous Landscapes	10
WELF 3008	Learning through Indigenous Australian Community Service (Day Mode)	10
HUMN 2038	Pigments of the Imagination	10
HUMN 2048	Revaluing Indigenous Economics (Day Mode)	10
HUMN 3070	Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)	10
HUMN 3082	The Making of the 'Aborigines'	10

Alternate subjects may be used to complete one of the minors listed below.

Indigenous Australian Studies, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/indigenous-australian-studies-minor/>)

Materials Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/materials-engineering-minor/>)
Advanced Manufacturing, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/advanced-manufacturing-minor/>)

Equivalent Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.

ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering

Replaced Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.

CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering

Bachelor of Engineering Advanced (Honours)

Qualification for this award requires the successful completion of 320 credit points, which include the subjects listed in the recommended sequence below.

Start-year intake

Course	Title	Credit Points
Year 1		
Autumn session		
MATH 1034	Mathematics for Engineers 1 (Advanced)	10
ENGR 1024	Introduction to Engineering Practice	10
ENGR 1047	Advanced Engineering Physics 1	10
ENGR 1050	Sustainable Engineering Fundamentals	10
	Credit Points	40
Spring session		
MATH 1035	Mathematics for Engineers 2 (Advanced)	10
ENGR 1018	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
Select one elective		10
<ul style="list-style-type: none"> • Elective can be any Level for Year 1 		
Year 2		
Autumn session		
CIVL 1001	Surveying for Engineers	10
CIVL 2003	Fluid Mechanics	10
ENGR 1045	Engineering Programming Fundamentals	10
EART 2001	Climate Change Science	10
	Credit Points	40
Spring session		
CIVL 3011	Hydraulics	10
ENGR 2032	Sustainability Analysis and Design	10
CIVL 2018	Water Supply Systems Design	10
Select one elective		10
<ul style="list-style-type: none"> • Electives must be Level 2 or higher 		

Students who fail to maintain a minimum GPA of 5.0 at the end of completion of 160 Credit Points, and again at the completion of 200 Credit points will be automatically transferred to the B. Engineering (Honours) (3740) program.					
	Credit Points	40	HUMN 1058	Indigenous Landscapes	10
Year 3			WELF 3008	Learning through Indigenous Australian Community Service (Day Mode)	10
Autumn session			HUMN 2038	Pigments of the Imagination	10
CIVL 4017	Surface Water Hydrology	10	HUMN 2048	Revaluing Indigenous Economics (Day Mode)	10
PROC 2003	Materials Selection and Design	10	HUMN 3070	Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)	10
ENVL 3005	Planning the City: Development, Community and Systems	10	HUMN 3082	The Making of the 'Aborigines'	10
One Alternate Subject		10	Alternate subjects may be used to complete one of the minors listed below.		
	Credit Points	40	Indigenous Australian Studies, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/indigenous-australian-studies-minor/)		
Spring session			Materials Engineering, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/materials-engineering-minor/)		
ELEC 3010	Renewable Energy Systems Design	10	Advanced Manufacturing, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/advanced-manufacturing-minor/)		
CIVL 3019	Wastewater Systems Design	10			
CIVL 4021	Sustainable Waste Engineering	10			
One Alternate Subject		10			
Industrial Experience			Equivalent Subjects		
ENGR 3017	Industrial Experience (Engineering)	0	The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.		
	Credit Points	40	MECH 4005 Advanced Engineering Thesis 1: Preliminary Investigations, replaced by ENGR 4037 Advanced Engineering Thesis 1: Preliminary Investigations		
Year 4			MECH 4006 Advanced Engineering Thesis 2: Detailed Investigations, replaced by ENGR 4036 Advanced Engineering Thesis 2: Detailed Investigations		
Autumn session					
ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10	The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.		
ENGR 4034	Climate Smart Engineering	10	ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering		
One Alternate Subject		10	Replaced Subjects		
Select one elective		10	The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.		
• Elective unit must be Level 2 or higher			CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering		
	Credit Points	40			
	Total Credit Points	320	Mid-year intake		
Alternate Subjects			Course	Title	Credit Points
Subject	Title	Credit Points			
PROC 4001	Advanced Materials Topics	10	Year 1		
PROC 4002	Engineering Materials from Waste	10	Spring session		
PROC 1008	Introduction to Materials Engineering	10	MATH 1034	Mathematics for Engineers 1 (Advanced)	10
PROC 3008	Materials Processing and Applications	10	ENGR 1018	Fundamentals of Mechanics	10
Modern Digital Design and Development (not yet available)		10	ELEC 1003	Electrical Fundamentals	10
Digital Manufacturing and IIoT (not yet available)		10	ENGR 1024	Introduction to Engineering Practice	10
Design for Advanced Manufacturing (not yet available)		10		Credit Points	40
HUMN 1013	Contextualising Indigenous Australia (Day Mode)	10	Autumn session		
Only three subjects may be chosen from the following			MATH 1035	Mathematics for Engineers 2 (Advanced)	10
CEDS 3001	Bridging the Gap: Re-engaging Indigenous Learners	10	CIVL 2003	Fluid Mechanics	10
PERF 2011	From Corroborees to Curtain Raisers (Day Mode)	10	ENGR 1047	Advanced Engineering Physics 1	10
VISU 2003	From Ochre to Acrylics to New Technologies	10	ENGR 1050	Sustainable Engineering Fundamentals	10
				Credit Points	40

Year 2		Alternate Subjects	
		Subject	Title
Spring session			
ENGR 2032	Sustainability Analysis and Design	10	PROC 4001 Advanced Materials Topics 10
CIVL 2018	Water Supply Systems Design	10	PROC 4002 Engineering Materials from Waste 10
CIVL 3011	Hydraulics	10	PROC 1008 Introduction to Materials Engineering 10
Select one elective		10	PROC 3008 Materials Processing and Applications 10
• Elective must be Level 2 or higher			Modern Digital Design and Development (not yet available) 10
	Credit Points	40	Digital Manufacturing and IIoT (not yet available) 10
Autumn session			Design for Advanced Manufacturing (not yet available) 10
CIVL 1001	Surveying for Engineers	10	HUMN 1013 Contextualising Indigenous Australia (Day Mode) 10
EART 2001	Climate Change Science	10	Only three subjects may be chosen from the following
ELEC 1006	Engineering Computing	10	CEDS 3001 Bridging the Gap: Re-engaging Indigenous Learners 10
Select one elective		10	PERF 2011 From Corroborees to Curtain Raisers (Day Mode) 10
• Elective must be Level 2 or higher			VISU 2003 From Ochre to Acrylics to New Technologies 10
Students who fail to maintain a minimum GPA of 5.0 at the end of completion of 160 Credit Points, and again at the completion of 200 Credit points will be automatically transferred to the B. Engineering (Honours) (3740) program.			HUMN 1058 Indigenous Landscapes 10
	Credit Points	40	WELF 3008 Learning through Indigenous Australian Community Service (Day Mode) 10
Year 3			HUMN 2038 Pigments of the Imagination 10
Spring session			HUMN 2048 Revaluing Indigenous Economics (Day Mode) 10
ELEC 3010	Renewable Energy Systems Design	10	HUMN 3070 Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode) 10
CIVL 3019	Wastewater Systems Design	10	
CIVL 4021	Sustainable Waste Engineering	10	
One alternate subject		10	
	Credit Points	40	
Autumn session			
CIVL 4017	Surface Water Hydrology	10	Indigenous Australian Studies, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/indigenous-australian-studies-minor/)
PROC 2003	Materials Selection and Design	10	Materials Engineering, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/materials-engineering-minor/)
ENVL 3005	Planning the City: Development, Community and Systems	10	Advanced Manufacturing, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/advanced-manufacturing-minor/)
One alternate subject		10	
	Credit Points	40	
Industrial Experience			
ENGR 3017	Industrial Experience (Engineering)	0	
	Credit Points	40	
Year 4			
Spring session			The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.
ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10	MECH 4005 Advanced Engineering Thesis 1: Preliminary Investigations, replaced by ENGR 4037 Advanced Engineering Thesis 1: Preliminary Investigations
ENGR 4035	Smart and Liveable Cities	10	
One alternate subject		10	MECH 4006 Advanced Engineering Thesis 2: Detailed Investigations, replaced by ENGR 4036 Advanced Engineering Thesis 2: Detailed Investigations
Select one elective		10	
• Elective must be Level 2 or higher			
	Credit Points	40	
Autumn session			The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.
ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10	ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering
ENGR 4034	Climate Smart Engineering	10	
One alternate subject		10	
Select one elective		10	
• Elective must be Level 2 or higher			
	Credit Points	40	
	Total Credit Points	320	

Equivalent Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MECH 4005 Advanced Engineering Thesis 1: Preliminary Investigations, replaced by ENGR 4037 Advanced Engineering Thesis 1: Preliminary Investigations

MECH 4006 Advanced Engineering Thesis 2: Detailed Investigations, replaced by ENGR 4036 Advanced Engineering Thesis 2: Detailed Investigations

The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.

ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering

Replaced Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.

CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering

Bachelor of Engineering (Honours)/ Bachelor of Business (3728)

Qualification for this award requires the successful completion of 400 credit points, which include the subjects listed in the recommended sequence below.

Start-year intake

Course	Title	Credit Points	Spring session	Credit Points
			Year 5	
Year 1			Autumn session	
Autumn session			ENGR 4025 Final Year Project 1 (UG Engineering)	10
MATH 1016 Mathematics for Engineers 1		10	ENGR 4034 Climate Smart Engineering	10
ENGR 1011 Engineering Physics		10	BBus Professional Subject 3	10
BBus Core Subject 1		10	BBus Major Subject 8	10
BBus Core Subject 2		10		
		Credit Points	Credit Points	40
Spring session			Spring session	
MATH 1019 Mathematics for Engineers 2		10	ENGR 4026 Final Year Project 2 (UG Engineering)	10
ENGR 1018 Fundamentals of Mechanics		10	ENGR 4035 Smart and Liveable Cities	10
BBus Core Subject 3		10	EART 3005 Statistical Hydrology	10
BBus Core Subject 4		10	BBus Professional Subject 4	10
		Credit Points	Credit Points	40
			Industrial Experience	
			ENGR 3017 Industrial Experience (Engineering)	0
			Credit Points	40
			Total Credit Points	400
Year 2				
Autumn session			Replaced Subjects	
ENGR 1050 Sustainable Engineering Fundamentals		10	The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.	
BBus Professional Subject 1		10		
BBus Professional Subject 2		10	CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering	
BBus Major Subject 1		10		
		Credit Points		
Spring session				
ELEC 1003 Electrical Fundamentals		10	Course	Title
CIVL 4021 Sustainable Waste Engineering		10		Credit Points
BBus Major Subject 2		10	Year 1	
BBus Major Subject 3		10	Spring session	
		Credit Points	MATH 1016 Mathematics for Engineers 1	10
Year 3			ENGR 1018 Fundamentals of Mechanics	10
Autumn session			BBus Core Subject 1	10
CIVL 1001 Surveying for Engineers		10	BBus Core Subject 2	10
CIVL 2003 Fluid Mechanics		10		
ELEC 1006 Engineering Computing		10	Credit Points	40
EART 2001 Climate Change Science		10	Autumn session	
		Credit Points	MATH 1019 Mathematics for Engineers 2	10
Spring session			ENGR 1011 Engineering Physics	10
CIVL 3011 Hydraulics		10	BBus Core Subject 3	10
ENGR 2032 Sustainability Analysis and Design		10	BBus Core Subject 4	10
CIVL 2018 Water Supply Systems Design		10		
CIVL 3019 Wastewater Systems Design		10	Credit Points	40
		Credit Points	Year 2	
Year 4			Spring session	
Autumn session			ENGR 2032 Sustainability Analysis and Design	10
CIVL 4017 Surface Water Hydrology		10	ELEC 1003 Electrical Fundamentals	10
ENVL 3005 Planning the City: Development, Community and Systems		10	BBus Major Subject 1	10
PROC 2003 Materials Selection and Design		10	BBus Major Subject 2	10
BBus Major Subject 4		10		
		Credit Points	Credit Points	40
			Autumn session	
			CIVL 2003 Fluid Mechanics	10
			ENGR 1050 Sustainable Engineering Fundamentals	10
			BBus Professional Subject 1	10

BBus Major Subject 3

10

Bachelor of Engineering Science

Qualification for this award requires the successful completion of 240 credit points, which include the subjects listed in the recommended sequence below.

Credit Points		40
Year 3		
Spring session		
ELEC 3010	Renewable Energy Systems Design	10
CIVL 3011	Hydraulics	10
CIVL 2018	Water Supply Systems Design	10
CIVL 3019	Wastewater Systems Design	10
Credit Points		40
Autumn session		
ELEC 1006	Engineering Computing	10
EART 2001	Climate Change Science	10
CIVL 1001	Surveying for Engineers	10
BBus Professional Subject 2		10
Credit Points		40
Year 4		
Spring session		
CIVL 4021	Sustainable Waste Engineering	10
BBus Major Subject 4		10
BBus Major Subject 5		10
BBus Major Subject 6		10
Credit Points		40
Autumn session		
CIVL 4017	Surface Water Hydrology	10
ENVL 3005	Planning the City: Development, Community and Systems	10
PROC 2003	Materials Selection and Design	10
BBus Major Subject 7		10
Industrial Experience		
ENGR 3017	Industrial Experience (Engineering)	0
Credit Points		40
Year 5		
Spring session		
ENGR 4025	Final Year Project 1 (UG Engineering)	10
ENGR 4035	Smart and Liveable Cities	10
EART 3005	Statistical Hydrology	10
BBus Professional Subject 3		10
Credit Points		40
Autumn session		
ENGR 4026	Final Year Project 2 (UG Engineering)	10
ENGR 4034	Climate Smart Engineering	10
BBus Professional Subject 4		10
BBus Major Subject 8		10
Credit Points		40
Total Credit Points		400

Replaced Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.

CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021
Sustainable Waste Engineering

* All students undertaking the Bachelor of Engineering Science are required to enrol in MATH 1021 Mathematics for Engineers Preliminary and undertake a readiness test at the beginning of their study.

The readiness test will be conducted at the beginning of the first semester of enrolment and the result will be used to determine whether a student will remain in MATH 1021 Mathematics for Engineers Preliminary or be transferred by the School to MATH 1016 Mathematics for Engineers 1.

Students remaining in MATH 1021 Mathematics for Engineers Preliminary will be required to complete MATH 1016 Mathematics for Engineers 1 during second semester and will be encouraged to complete MATH 1019 Mathematics for Engineers 2 during the Summer session.

Students who finish MATH 1021 Mathematics for Engineers Preliminary will then use this subject as an elective.

Start-year intake

Course	Title	Credit Points
Year 1		
Autumn session		
ENGR 1011	Engineering Physics	10
ENGR 1050	Sustainable Engineering Fundamentals	10
ENGR 1024	Introduction to Engineering Practice	10
Select one of the following:		10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
Credit Points		40
Spring session		
ENGR 1018	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
Select one elective		10
• Elective can be any Level for Year 1		
Select one of the following:		10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
Credit Points		40
Year 2		
Autumn session		
ENGR 3029	Specialisation Workshop 1	10
CIVL 2003	Fluid Mechanics	10
ELEC 1006	Engineering Computing	10
EART 2001	Climate Change Science	10
Credit Points		40
Spring session		
CIVL 3011	Hydraulics	10
ENGR 2032	Sustainability Analysis and Design	10
CIVL 2018	Water Supply Systems Design	10
ENGR 3030	Specialisation Workshop 2	10
Credit Points		40

Year 3		
Autumn session		
ENGR 3013	Engineering Science Project 1	10
CIVL 4017	Surface Water Hydrology	10
ENVL 3005	Planning the City: Development, Community and Systems	10
Select one elective		10
• Elective must be Level 2 or higher		
	Credit Points	40
Spring session		
ENGR 3014	Engineering Science Project 2	10
ELEC 3010	Renewable Energy Systems Design	10
CIVL 3019	Wastewater Systems Design	10
CIVL 4021	Sustainable Waste Engineering	10
Industrial Experience		
ENGR 2033	Industrial Experience (Engineering Technologist)	0
	Credit Points	40
	Total Credit Points	240

Replaced Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.

CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering

Mid-year intake

Course	Title	Credit Points
Year 1		
Spring session		
Select one of the following:		
MATH 1021	Mathematics for Engineers Preliminary	10
MATH 1016	Mathematics for Engineers 1	
ENGR 1018	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
ENGR 1024	Introduction to Engineering Practice	10
	Credit Points	40
Autumn session		
Select one of the following:		
MATH 1016	Mathematics for Engineers 1	10
MATH 1019	Mathematics for Engineers 2	
CIVL 2003	Fluid Mechanics	10
ENGR 1011	Engineering Physics	10
ENGR 1050	Sustainable Engineering Fundamentals	10
	Credit Points	40

Year 2

Spring session		
ENGR 3029	Specialisation Workshop 1	10
ENGR 2032	Sustainability Analysis and Design	10
CIVL 2018	Water Supply Systems Design	10
CIVL 3011	Hydraulics	10
	Credit Points	40
Autumn session		
ENGR 3030	Specialisation Workshop 2	10
EART 2001	Climate Change Science	10

* All students undertaking the Bachelor of Engineering (Honours) are required to enrol in MATH 1021 Mathematics for Engineers Preliminary and undertake a readiness test at the beginning of their study.

The readiness test will be conducted at the beginning of the first semester of enrolment and the result will be used to determine whether a student will remain in MATH 1021 Mathematics for Engineers Preliminary or be transferred by the School to MATH 1016 Mathematics for Engineers 1.

Major Sequence 2024

This major sequence applies to students who commenced in 2024 or later. If you commenced prior to 2024 please refer to the Sequence 2022-23 tab for details.

This major is included in Bachelor of Engineering Science, Bachelor of Engineering (Honours), Bachelor of Engineering Advanced (Honours) and Bachelor of Engineering (Honours)/Bachelor of Business.

Please follow the recommended sequence for your program as noted below.

Bachelor of Engineering (Honours) (3740)

Qualification for this award requires the successful completion of 320 credit points, which include the subjects listed in the recommended sequence below.

* All students undertaking the Bachelor of Engineering (Honours) are required to enrol in MATH 1021 Mathematics for Engineers Preliminary and undertake a readiness test at the beginning of their study.

The readiness test will be conducted at the beginning of the first semester of enrolment and the result will be used to determine whether a student will remain in MATH 1021 Mathematics for Engineers Preliminary or be transferred by the School to MATH 1016 Mathematics for Engineers 1.

Students remaining in MATH 1021 Mathematics for Engineers Preliminary will be required to complete MATH 1016 Mathematics for Engineers 1 during second semester and will be encouraged to complete MATH 1019 Mathematics for Engineers 2 during the Summer session.

** **Electives** must be Level 2 or higher (An exception applies for students completing MATH 1021 Mathematics for Engineers Preliminary. This subject will then count as one of the elective subjects)

Start-year intake

Course	Title	Credit Points		
Year 1				
Autumn session				
ENGR 1011	Engineering Physics	10		
ELEC 1006	Engineering Computing	10		
ENGR 1024	Introduction to Engineering Practice	10		
Select one of the following:		10		
MATH 1021	Mathematics for Engineers Preliminary			
MATH 1016	Mathematics for Engineers 1			
	Credit Points	40		
Spring session				
ENGR 1018	Fundamentals of Mechanics	10		
ELEC 1003	Electrical Fundamentals	10		
PROC 1008	Introduction to Materials Engineering	10		
Select one of the following:		10		
MATH 1016	Mathematics for Engineers 1			
MATH 1019	Mathematics for Engineers 2			
	Credit Points	40		
Year 2				
Autumn session				
CIVL 1001	Surveying for Engineers	10		
CIVL 2003	Fluid Mechanics	10		
ENGR 1050	Sustainable Engineering Fundamentals	10		
EART 2001	Climate Change Science	10		
	Credit Points	40		
Spring session				
CIVL 3011	Hydraulics	10		
ENGR 2032	Sustainability Analysis and Design	10		
CIVL 2018	Water Supply Systems Design	10		
CIVL 2002	Environmental Engineering	10		
	Credit Points	40		
Year 3				
Autumn session				
CIVL 4017	Surface Water Hydrology	10		
PROC 2003	Materials Selection and Design	10		
ENVL 3005	Planning the City: Development, Community and Systems	10		
Select one elective** or minor subject		10		
	Credit Points	40		
Spring session				
ELEC 3010	Renewable Energy Systems Design	10		
CIVL 3019	Wastewater Systems Design	10		
CIVL 4021	Sustainable Waste Engineering	10		
Select one elective** or minor subject		10		
Industrial Experience				
ENGR 3017	Industrial Experience (Engineering)	0		
	Credit Points	40		
Year 4				
Autumn session				
ENGR 4041	Final Year Project 1 (UG Engineering)	20		
ENGR 4034	Climate Smart Engineering	10		
Select one elective** or minor subject		10		
	Credit Points	40		
Spring session				
ENGR 4035	Smart and Liveable Cities	10		
ENGR 4042	Final Year Project 2 (UG Engineering)	20		
Select one elective** or minor subject		10		
	Credit Points	40		
	Total Credit Points	320		
Mid-year intake				
Course	Title	Credit Points		
Year 1				
Spring session				
ENGR 1018	Fundamentals of Mechanics	10		
PROC 1008	Introduction to Materials Engineering	10		
ENGR 1024	Introduction to Engineering Practice	10		
Select one of the following:		10		
MATH 1021	Mathematics for Engineers Preliminary			
MATH 1016	Mathematics for Engineers 1			
	Credit Points	40		
Autumn session				
CIVL 2003	Fluid Mechanics	10		
ENGR 1011	Engineering Physics	10		
ENGR 1050	Sustainable Engineering Fundamentals	10		
Select one of the following:		10		
MATH 1016	Mathematics for Engineers 1			
MATH 1019	Mathematics for Engineers 2			
	Credit Points	40		
Year 2				
Spring session				
ENGR 2032	Sustainability Analysis and Design	10		
CIVL 2018	Water Supply Systems Design	10		
CIVL 3011	Hydraulics	10		
ELEC 1003	Electrical Fundamentals	10		
	Credit Points	40		
Autumn session				
CIVL 1001	Surveying for Engineers	10		
EART 2001	Climate Change Science	10		
ELEC 1006	Engineering Computing	10		
PROC 2003	Materials Selection and Design	10		
	Credit Points	40		
Year 3				
Spring session				
ELEC 3010	Renewable Energy Systems Design	10		
CIVL 3019	Wastewater Systems Design	10		
CIVL 2002	Environmental Engineering	10		
CIVL 4021	Sustainable Waste Engineering	10		
	Credit Points	40		

Autumn session			
CIVL 4017	Surface Water Hydrology	10	
ENVL 3005	Planning the City: Development, Community and Systems	10	
Select two electives** or minor subjects		20	
			Credit Points 40
Industrial Experience			
ENGR 3017	Industrial Experience (Engineering)	0	
	Credit Points	40	
Year 4			
Spring session			
ENGR 4041	Final Year Project 1 (UG Engineering)	20	
ENGR 4035	Smart and Liveable Cities	10	
Select one elective** or minor subject		10	
	Credit Points	40	
Autumn session			
ENGR 4042	Final Year Project 2 (UG Engineering)	20	
ENGR 4034	Climate Smart Engineering	10	
Select one elective** or minor subject		10	
	Credit Points	40	
	Total Credit Points	320	

Bachelor of Engineering Advanced (Honours) (3771)

Qualification for this award requires the successful completion of 320 credit points, which include the subjects listed in the recommended sequence below.

** Electives must be Level 2 or higher

Start-year intake

Course	Title	Credit Points	
Year 1			
Autumn session			
MATH 1034	Mathematics for Engineers 1 (Advanced)	10	
ENGR 1024	Introduction to Engineering Practice	10	
ENGR 1047	Advanced Engineering Physics 1	10	
ELEC 1006	Engineering Computing	10	
	Credit Points	40	
Spring session			
MATH 1035	Mathematics for Engineers 2 (Advanced)	10	
ENGR 1018	Fundamentals of Mechanics	10	
ELEC 1003	Electrical Fundamentals	10	
ENGR 2023	Advanced Engineering Physics 2	10	
	Credit Points	40	
Year 2			
Autumn session			
CIVL 1001	Surveying for Engineers	10	
CIVL 2003	Fluid Mechanics	10	
ENGR 1050	Sustainable Engineering Fundamentals	10	
EART 2001	Climate Change Science	10	
	Credit Points	40	
Spring session			
CIVL 3011	Hydraulics	10	
ENGR 2032	Sustainability Analysis and Design	10	
CIVL 2018	Water Supply Systems Design	10	
PROC 1008	Introduction to Materials Engineering	10	
	Credit Points	40	
Year 3			
Autumn session			
CIVL 4017	Surface Water Hydrology	10	
PROC 2003	Materials Selection and Design	10	
ENVL 3005	Planning the City: Development, Community and Systems	10	
Select one elective** or minor subject		10	
	Credit Points	40	
Industrial Experience			
ENGR 3017	Industrial Experience (Engineering)	0	
	Credit Points	40	
Year 4			
Spring session			
ELEC 3010	Renewable Energy Systems Design	10	
CIVL 3019	Wastewater Systems Design	10	
CIVL 4021	Sustainable Waste Engineering	10	
Select one elective** or minor subject		10	
	Credit Points	40	
Industrial Experience			
ENGR 3017	Industrial Experience (Engineering)	0	
	Credit Points	40	
Year 5			
Autumn session			
ENGR 4043	Advanced Engineering Thesis 1: Preliminary Investigations	20	
ENGR 4034	Climate Smart Engineering	10	
Select one elective** or minor subject		10	
	Credit Points	40	
Spring session			
ENGR 4044	Advanced Engineering Thesis 2: Detailed Investigations	20	
ENGR 4035	Smart and Liveable Cities	10	
Select one elective** or minor subject		10	
	Credit Points	40	
Mid-year intake			
Course	Title	Credit Points	
Year 1			
Spring session			
MATH 1034	Mathematics for Engineers 1 (Advanced)	10	
ENGR 1018	Fundamentals of Mechanics	10	
ELEC 1003	Electrical Fundamentals	10	
ENGR 2023	Advanced Engineering Physics 2	10	
	Credit Points	40	
Year 2			
Autumn session			
MATH 1035	Mathematics for Engineers 2 (Advanced)	10	
CIVL 2003	Fluid Mechanics	10	
ENGR 1047	Advanced Engineering Physics 1	10	
ELEC 1006	Engineering Computing	10	
	Credit Points	40	
Year 3			
Autumn session			
MATH 1035	Mathematics for Engineers 2 (Advanced)	10	
CIVL 2003	Fluid Mechanics	10	
ENGR 1047	Advanced Engineering Physics 1	10	
ELEC 1006	Engineering Computing	10	
	Credit Points	40	
Year 4			
Spring session			
ENGR 2032	Sustainability Analysis and Design	10	
CIVL 2018	Water Supply Systems Design	10	
CIVL 3011	Hydraulics	10	
	Credit Points	40	

Students who fail to maintain a minimum GPA of 5.0 at the end of completion of 160 Credit Points, and again at the completion of 200 Credit points will be automatically transferred to the B. Engineering (Honours) (3740) program.

Credit Points 40

Year 3

Autumn session

CIVL 4017	Surface Water Hydrology	10
PROC 2003	Materials Selection and Design	10
ENVL 3005	Planning the City: Development, Community and Systems	10
Select one elective** or minor subject		10
	Credit Points	40

Spring session		
ELEC 3010	Renewable Energy Systems Design	10
CIVL 3019	Wastewater Systems Design	10
CIVL 4021	Sustainable Waste Engineering	10
Select one elective** or minor subject		10
	Credit Points	40

Industrial Experience

ENGR 3017	Industrial Experience (Engineering)	0	
	Credit Points	40	
Year 4			
Autumn session			
ENGR 4043	Advanced Engineering Thesis 1: Preliminary Investigations	20	
ENGR 4034	Climate Smart Engineering	10	
Select one elective** or minor subject		10	
	Credit Points	40	
Spring session			
ENGR 4044	Advanced Engineering Thesis 2: Detailed Investigations	20	
ENGR 4035	Smart and Liveable Cities	10	
Select one elective** or minor subject		10	
	Credit Points	40	
Mid-year intake			
Course	Title	Credit Points	
Year 1			
Spring session			
MATH 1034	Mathematics for Engineers 1 (Advanced)	10	
ENGR 1018	Fundamentals of Mechanics	10	
ELEC 1003	Electrical Fundamentals	10	
ENGR 2023	Advanced Engineering Physics 2	10	
	Credit Points	40	
Year 2			
Autumn session			
MATH 1035	Mathematics for Engineers 2 (Advanced)	10	
CIVL 2003	Fluid Mechanics	10	
ENGR 1047	Advanced Engineering Physics 1	10	
ELEC 1006	Engineering Computing	10	
	Credit Points	40	
Year 3			
Autumn session			
MATH 1035	Mathematics for Engineers 2 (Advanced)	10	
CIVL 2003	Fluid Mechanics	10	
ENGR 1047	Advanced Engineering Physics 1	10	
ELEC 1006	Engineering Computing	10	
	Credit Points	40	
Year 4			
Spring session			
ENGR 2032	Sustainability Analysis and Design	10	
CIVL 2018	Water Supply Systems Design	10	
CIVL 3011	Hydraulics	10	
	Credit Points	40	

PROC 1008	Introduction to Materials Engineering	10	BBus Core Subject 1	10	
	Credit Points	40	Credit Points	40	
Autumn session					
CIVL 1001	Surveying for Engineers	10	MATH 1019	Mathematics for Engineers 2	
EART 2001	Climate Change Science	10	PROC 1008	Introduction to Materials Engineering	
ENGR 1050	Sustainable Engineering Fundamentals	10	BBus Core Subject 2	10	
ENGR 1024	Introduction to Engineering Practice	10	BBus Core Subject 3	10	
Students who fail to maintain a minimum GPA of 5.0 at the end of completion of 160 Credit Points, and again at the completion of 200 Credit points will be automatically transferred to the B. Engineering (Honours) (3740) program.					
	Credit Points	40	Credit Points	40	
Year 3					
Spring session					
ELEC 3010	Renewable Energy Systems Design	10	ELEC 1006	Engineering Computing	
CIVL 3019	Wastewater Systems Design	10	BBus Core Subject 4	10	
CIVL 4021	Sustainable Waste Engineering	10	BBus Professional Subject 1	10	
Select one elective** or minor subject		10	BBus Professional Subject 2	10	
	Credit Points	40	Credit Points	40	
Autumn session					
CIVL 4017	Surface Water Hydrology	10	ENGR 1050	Sustainable Engineering Fundamentals	
PROC 2003	Materials Selection and Design	10	CIVL 1001	Surveying for Engineers	
ENVL 3005	Planning the City: Development, Community and Systems	10	CIVL 2003	Fluid Mechanics	
Select one elective** or minor subject		10	EART 2001	Climate Change Science	
Industrial Experience					
ENGR 3017	Industrial Experience (Engineering)	0			
	Credit Points	40	Credit Points	40	
Year 4					
Spring session					
ENGR 4043	Advanced Engineering Thesis 1: Preliminary Investigations	20	ENGR 2032	Sustainability Analysis and Design	
ENGR 4035	Smart and Liveable Cities	10	CIVL 2002	Environmental Engineering	
Select one elective** or minor subject		10	CIVL 2018	Water Supply Systems Design	
	Credit Points	40	CIVL 3011	Hydraulics	
Autumn session					
ENGR 4044	Advanced Engineering Thesis 2: Detailed Investigations	20			
ENGR 4034	Climate Smart Engineering	10	Autumn session		
Select one elective** or minor subject		10	PROC 2003	Materials Selection and Design	
	Credit Points	40	CIVL 4017	Surface Water Hydrology	
Total Credit Points					
	Total Credit Points	320	ENVL 3005	Planning the City: Development, Community and Systems	
			BBus Major Subject 3	10	
				Credit Points	40
Bachelor of Engineering (Honours)/ Bachelor of Business (3800)					
Qualification for this award requires the successful completion of 440 credit points, which include the subjects listed in the recommended sequence below.					
Start-year intake					
Course	Title	Credit Points			
Year 1					
Autumn session					
MATH 1016	Mathematics for Engineers 1	10	ENGR 4041	Final Year Project 1 (UG Engineering)	
ENGR 1011	Engineering Physics	10	ENGR 4034	Climate Smart Engineering	
ENGR 1024	Introduction to Engineering Practice	10	BBus Major Subject 5	10	
				Credit Points	40

Bachelor of Engineering (Honours)/ Bachelor of Business (3800)

Qualification for this award requires the successful completion of 440 credit points, which include the subjects listed in the recommended sequence below.

Start-year intake

Course	Title	Credit Points			
Year 1					
Autumn session					
MATH 1016	Mathematics for Engineers 1	10	ENGR 4041	Final Year Project 1 (UG Engineering)	
ENGR 1011	Engineering Physics	10	ENGR 4034	Climate Smart Engineering	
ENGR 1024	Introduction to Engineering Practice	10	BBus Major Subject 5	10	
				Credit Points	40
Year 5					
Autumn session					

Spring session		EART 2001	Climate Change Science	10
ENGR 4042	Final Year Project 2 (UG Engineering)	20	Credit Points	40
ENGR 4035	Smart and Liveable Cities	10		
BBus Major Subject 6		10		
	Credit Points	40		
Year 6				
Autumn session				
BBus Major Subject 7		10		
BBus Major Subject 8		10		
BBus Professional Subject 3		10		
BBus Professional Subject 4		10		
	Credit Points	40		
	Total Credit Points	440		
Mid-year intake				
Course	Title	Credit Points		
Year 1				
Spring session				
MATH 1016	Mathematics for Engineers 1	10		
PROC 1008	Introduction to Materials Engineering	10		
ENGR 1024	Introduction to Engineering Practice	10		
BBus Core Subject 1		10		
	Credit Points	40		
Autumn session				
MATH 1019	Mathematics for Engineers 2	10		
ENGR 1011	Engineering Physics	10		
BBus Core Subject 2		10		
BBus Core Subject 3		10		
	Credit Points	40		
Year 2				
Spring session				
ELEC 1003	Electrical Fundamentals	10		
ENGR 1018	Fundamentals of Mechanics	10		
BBus Core Subject 4		10		
BBus Major Subject 1		10		
	Credit Points	40		
Autumn session				
ENGR 1050	Sustainable Engineering Fundamentals	10		
CIVL 2003	Fluid Mechanics	10		
BBus Major Subject 2		10		
BBus Professional Subject 1		10		
	Credit Points	40		
Year 3				
Spring session				
ENGR 2032	Sustainability Analysis and Design	10		
CIVL 2018	Water Supply Systems Design	10		
CIVL 2002	Environmental Engineering	10		
CIVL 3011	Hydraulics	10		
	Credit Points	40		
Autumn session				
PROC 2003	Materials Selection and Design	10		
ENVL 3005	Planning the City: Development, Community and Systems	10		
CIVL 4017	Surface Water Hydrology	10		

Bachelor of Engineering Science (3691)

Qualification for this award requires the successful completion of 240 credit points, which include the subjects listed in the recommended sequence below.

*** All students undertaking the Bachelor of Engineering Science are required to enrol in MATH 1021 Mathematics for Engineers Preliminary and undertake a readiness test at the beginning of their study.**

The readiness test will be conducted at the beginning of the first semester of enrolment and the result will be used to determine whether a student will remain in MATH 1021 Mathematics for Engineers Preliminary or be transferred by the School to MATH 1016 Mathematics for Engineers 1.

Students remaining in MATH 1021 Mathematics for Engineers Preliminary will be required to complete MATH 1016 Mathematics for Engineers 1 during second semester and will be encouraged to complete MATH 1019 Mathematics for Engineers 2 during the Summer session.

Students who finish MATH 1021 Mathematics for Engineers Preliminary will then use this subject as an elective.

Start-year intake

Course	Title	Credit Points
Year 1		
Autumn session		
ENGR 1011	Engineering Physics	10
ENGR 1050	Sustainable Engineering Fundamentals	10
ENGR 1024	Introduction to Engineering Practice	10
Select one of the following:		10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
	Credit Points	40
Spring session		
ENGR 1018	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
PROC 1008	Introduction to Materials Engineering	10
Select one of the following:		10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
	Credit Points	40
Year 2		
Autumn session		
ENGR 3029	Specialisation Workshop 1	10
CIVL 2003	Fluid Mechanics	10
ELEC 1006	Engineering Computing	10
EART 2001	Climate Change Science	10
	Credit Points	40
Spring session		
CIVL 3011	Hydraulics	10
ENGR 2032	Sustainability Analysis and Design	10
CIVL 2018	Water Supply Systems Design	10
ENGR 3030	Specialisation Workshop 2	10
	Credit Points	40
Year 3		
Autumn session		
ENGR 3013	Engineering Science Project 1	10
CIVL 4017	Surface Water Hydrology	10
ENVL 3005	Planning the City: Development, Community and Systems	10
Select one elective		10
• Elective must be Level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)		
	Credit Points	40
Spring session		
ENGR 3014	Engineering Science Project 2	10
ELEC 3010	Renewable Energy Systems Design	10
Select one elective		10
CIVL 4021	Sustainable Waste Engineering	10
Elective must be Level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)		
Industrial Experience		
	Credit Points	40

ENGR 2033	Industrial Experience (Engineering Technologist)	0
	Credit Points	40
	Total Credit Points	240

Mid-year intake

Course	Title	Credit Points
Year 1		
Spring session		
ENGR 1018	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
PROC 1008	Introduction to Materials Engineering	10
Select one of the following:		10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
	Credit Points	40
Autumn session		
CIVL 2003	Fluid Mechanics	10
ENGR 1024	Introduction to Engineering Practice	10
ENGR 1050	Sustainable Engineering Fundamentals	10
Select one of the following:		10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
	Credit Points	40
Year 2		
Spring session		
ENGR 3029	Specialisation Workshop 1	10
ENGR 2032	Sustainability Analysis and Design	10
CIVL 2018	Water Supply Systems Design	10
CIVL 3011	Hydraulics	10
	Credit Points	40
Autumn session		
ENGR 3030	Specialisation Workshop 2	10
EART 2001	Climate Change Science	10
ELEC 1006	Engineering Computing	10
ENGR 1011	Engineering Physics	10
Industrial Experience		
ENGR 2033	Industrial Experience (Engineering Technologist)	0
	Credit Points	40
Year 3		
Spring session		
ENGR 3013	Engineering Science Project 1	10
ELEC 3010	Renewable Energy Systems Design	10
Select one elective		10
CIVL 4021	Sustainable Waste Engineering	10
Electives must be Level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)		
	Credit Points	40
Autumn session		
ENGR 3014	Engineering Science Project 2	10
CIVL 4017	Surface Water Hydrology	10
ENVL 3005	Planning the City: Development, Community and Systems	10
Select one elective		10

- Elective must be Level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)

Credit Points	40
Total Credit Points	240

Related Programs

Bachelor of Engineering (Honours)/Bachelor of Business (3728) (<https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-engineering-honours-bachelor-business/>)

Bachelor of Engineering (Honours) (3740) (<https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-engineering-honours/>)

Bachelor of Engineering Advanced (Honours) (3771) (<https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-engineering-advanced-honours/>)

Bachelor of Engineering Science (3691) (<https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-engineering-science/>)