

MATERIALS ENGINEERING, TESTAMUR MAJOR (T128)

Western Sydney University Major Code: T128

Previous Code: MT3049.1

Available to students in other Western Sydney University programs?

No

Since the dawning of mankind an understanding of how materials can be obtained and used has been critical to successful human endeavour. Materials engineers are concerned with the highly technological and dynamic process of understanding, developing, and applying materials (metals, polymers, ceramics, composites) to a range of engineering problems. Students will develop skills necessary to synthesise relevant information so that they can be effective decision makers in a materials context. These skills will serve them well in varied career opportunities associated with biomedical devices, nanotechnology, advanced manufacturing, opto-electronics, energy, aerospace, and sustainable construction. This major includes a mandatory 300 to 450 hour industrial placement as a completion requirement.

Location

Campus	Mode	Advice	Credit Points
Parramatta Campus - Victoria Road	Internal	Program Advice (edbe@westernsydney.edu.au)	40
Parramatta City Campus-Macquarie Street	Internal	Program Advice (edbe@westernsydney.edu.au)	40
Penrith Campus	Internal	Program Advice (edbe@westernsydney.edu.au)	40

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
PROC 1006	Materials 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
PROC 1008	Introduction to Materials Engineering	10
Select one elective		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		
MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
ELEC 1006	Engineering Computing	10
PROC 2003	Materials Selection and Design	10
	Credit Points	40
Spring session		
ENGR 2016	Pavement Materials and Design	10
ENGR 2001	Automated Manufacturing	10
ENGR 2032	Sustainability Analysis and Design	10
MECH 3002	Advanced Mechanics of Materials	10
	Credit Points	40
Year 3		
Autumn session		
MECH 3005	Mechanical Design	10
PROC 3008	Materials Processing and Applications	10
CIVL 2003	Fluid Mechanics	10
Select one elective		10
• Elective must be Level 2 or higher		
	Credit Points	40
Spring session		
PROC 4001	Advanced Materials Topics	10
MECH 3008	Thermodynamics and Heat Transfer	10
CIVL 4021	Sustainable Waste Engineering	10
Select one Alternate Subject		10
Industrial Experience		
ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	40
Year 4		
Autumn session		
PROC 4002	Engineering Materials from Waste	10
ENGR 4025	Final Year Project 1 (UG Engineering)	10

Select one Alternate Subject	10
Select one elective	10
• Elective subject must be Level 2 or higher	

Credit Points	40
Spring session	
ENGR 4026 Final Year Project 2 (UG Engineering)	10
Two Alternate Subjects	20
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
BIOS 1022	Introduction to Human Biology	10
HLTH 2003	Biomechanics	10
ENGR 3003	Biomedical Electronics	10
ENGR 3004	Biomedical Signals and Data Analysis	10
ELEC 1003	Electrical Fundamentals	10
ENGR 4035	Smart and Liveable Cities	10
ENGR 4034	Climate Smart Engineering	10
ELEC 3010	Renewable Energy Systems Design	10
CIVL 2018	Water Supply Systems Design	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
HUMN 1058	Indigenous Landscapes	10
HUMN 2038	Pigments of the Imagination	10
HUMN 2048	Revaluing Indigenous Economics (Day Mode)	10
PERF 2011	From Corroborees to Curtain Raisers (Day Mode)	10
VISU 2003	From Ochre to Acrylics to New Technologies	10
CEDS 3001	Bridging the Gap: Re-engaging Indigenous Learners	10
HUMN 3082	The Making of the 'Aborigines'	10
WELF 3008	Learning through Indigenous Australian Community Service (Day Mode)	10
HUMN 3070	Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)	10

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

Biomedical Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/biomedical-engineering-minor/>)
 Indigenous Australian Studies, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/indigenous-australian-studies-minor/>)
 Sustainability Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/sustainability-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
PROC 1008	Introduction to Materials Engineering	10
ENGR 1024	Introduction to Engineering Practice	10
Credit Points		40
Autumn session		
Select one of the following:		10
MATH 1019	Mathematics for Engineers 2	
MATH 1016	Mathematics for Engineers 1	
ENGR 1011	Engineering Physics	10
PROC 1006	Materials Engineering Fundamentals	10
Select one elective		10
• Elective unit must be Level 1 or higher		
Credit Points		40
Year 2		
Spring session		
ENGR 2001	Automated Manufacturing	10
ENGR 2032	Sustainability Analysis and Design	10
ENGR 2016	Pavement Materials and Design	10
Select one elective		10
• Elective unit must be Level 2 or higher		
Credit Points		40
Autumn session		
PROC 2003	Materials Selection and Design	10
MECH 2003	Mechanics of Materials	10
MECH 2001	Kinematics and Kinetics of Machines	10
PROC 3008	Materials Processing and Applications	10
Credit Points		40
Year 3		
Spring session		
PROC 4001	Advanced Materials Topics	10
MECH 3008	Thermodynamics and Heat Transfer	10
CIVL 4021	Sustainable Waste Engineering	10
MECH 3002	Advanced Mechanics of Materials	10
Credit Points		40
Autumn session		
ELEC 1006	Engineering Computing	10
MECH 3005	Mechanical Design	10
CIVL 2003	Fluid Mechanics	10

One Alternate Subject	10	Indigenous Australian Studies, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/indigenous-australian-studies-minor/)
Industrial Experience		Sustainability Engineering, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/sustainability-engineering-minor/)
ENGR 3017 Industrial Experience (Engineering)	0	Advanced Manufacturing, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/advanced-manufacturing-minor/)
Credit Points	40	
Year 4		
Spring session		
ENGR 4025 Final Year Project 1 (UG Engineering)	10	ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering
One Alternate subject	10	
One Alternate subject	10	
Select one elective	10	
• Elective unit must be Level 2 or higher		
Credit Points	40	
Autumn session		
ENGR 4026 Final Year Project 2 (UG Engineering)	10	
PROC 4002 Engineering Materials from Waste	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
BIOS 1022 Introduction to Human Biology	10	
HLTH 2003 Biomechanics	10	
ENGR 3003 Biomedical Electronics	10	
ENGR 3004 Biomedical Signals and Data Analysis	10	
ELEC 1003 Electrical Fundamentals	10	
ENGR 4035 Smart and Liveable Cities	10	
ENGR 4034 Climate Smart Engineering	10	
ELEC 3010 Renewable Energy Systems Design	10	
CIVL 2018 Water Supply Systems Design	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	
HUMN 1058 Indigenous Landscapes	10	
HUMN 2038 Pigments of the Imagination	10	
HUMN 2048 Revaluing Indigenous Economics (Day Mode)	10	
PERF 2011 From Corroborees to Curtain Raisers (Day Mode)	10	
VISU 2003 From Ochre to Acrylics to New Technologies	10	
CEDS 3001 Bridging the Gap: Re-engaging Indigenous Learners	10	
HUMN 3082 The Making of the 'Aborigines'	10	
WELF 3008 Learning through Indigenous Australian Community Service (Day Mode)	10	
HUMN 3070 Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)	10	
Alternate subjects may be used to complete one of the minors listed below.		
Biomedical Engineering, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/biomedical-engineering-minor/)		

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 1047	Advanced Engineering Physics 1	10
PROC 1006	Materials Engineering Fundamentals	10
ENGR 1024	Introduction to Engineering Practice	10
	Credit Points	40
Spring session		
MATH 1035	Mathematics for Engineers 2 (Advanced)	10
ENGR 1018	Fundamentals of Mechanics	10
PROC 1008	Introduction to Materials Engineering	10
Select one elective		10
	Credit Points	40
Year 2		
Autumn session		
MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
ENGR 1045	Engineering Programming Fundamentals	10
PROC 2003	Materials Selection and Design	10
	Credit Points	40
Spring session		
MECH 2005	Mathematics for Mechanical and Mechatronic Engineers	10
ENGR 2032	Sustainability Analysis and Design	10
ENGR 2016	Pavement Materials and Design	10
ENGR 2001	Automated Manufacturing	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		
Year 3				
Autumn session				
PROC 3008	Materials Processing and Applications	10	HUMN 1058	Indigenous Landscapes
MECH 3005	Mechanical Design	10	HUMN 2038	Pigments of the Imagination
CIVL 2003	Fluid Mechanics	10	HUMN 2048	Revaluing Indigenous Economics (Day Mode)
One Alternate Subject		10	PERF 2011	From Corroborees to Curtain Raisers (Day Mode)
	Credit Points	40	VISU 2003	From Ochre to Acrylics to New Technologies
Spring session			CEDS 3001	Bridging the Gap: Re-engaging Indigenous Learners
PROC 4001	Advanced Materials Topics	10	HUMN 3082	The Making of the 'Aborigines'
MECH 3008	Thermodynamics and Heat Transfer	10	WELF 3008	Learning through Indigenous Australian Community Service (Day Mode)
CIVL 4021	Sustainable Waste Engineering	10	HUMN 3070	Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)
Select one elective		10		
• Electives must be Level 2 or higher				
Industrial Experience				
ENGR 3017	Industrial Experience (Engineering)	0		Alternate subjects may be used to complete one of the minors listed below.
	Credit Points	40		
Year 4				
Autumn session				
PROC 4002	Engineering Materials from Waste	10		Biomedical Engineering, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/biomedical-engineering-minor/)
ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10		Indigenous Australian Studies, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/indigenous-australian-studies-minor/)
One Alternate Subject		10		Sustainability Engineering, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/sustainability-engineering-minor/)
Select one elective		10		Advanced Manufacturing, Minor (https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/advanced-manufacturing-minor/)
• Elective unit must be Level 2 or higher				
	Credit Points	40		
Spring session				
ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10		
Two Alternate subjects		10		
Select two electives		20		
• Elective subjects must be Level 2 or higher				
	Credit Points	40		
	Total Credit Points	320		
Alternate Subjects				
Subject	Title	Credit Points		
BIOS 1022	Introduction to Human Biology	10		
HLTH 2003	Biomechanics	10		
ENGR 3003	Biomedical Electronics	10		
ENGR 3004	Biomedical Signals and Data Analysis	10		
ELEC 1003	Electrical Fundamentals	10		
ENGR 4035	Smart and Liveable Cities	10		
ENGR 4034	Climate Smart Engineering	10		
ELEC 3010	Renewable Energy Systems Design	10		
CIVL 2018	Water Supply Systems Design	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		
	Credit Points	40		
Mid-year intake				
Course	Title	Credit Points		
Year 1				
Spring session				
MATH 1034	Mathematics for Engineers 1 (Advanced)	10		
ENGR 1011	Engineering Physics	10		
PROC 1008	Introduction to Materials Engineering	10		
ENGR 1024	Introduction to Engineering Practice	10		
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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	Credit Points	Credit Points
Year 1				
Autumn session				
MATH 1016	Mathematics for Engineers 1	10		
ENGR 1011	Engineering Physics	10		
BBus Core Subject 1		10		
BBus Core Subject 2		10		
Credit Points			40	
Spring session				
MATH 1019	Mathematics for Engineers 2	10		
ENGR 1018	Fundamentals of Mechanics	10		
BBus Core Subject 3		10		
BBus Core Subject 4		10		
Credit Points			40	
Year 2				
Autumn session				
PROC 1006	Materials Engineering Fundamentals	10		
BBus Professional Subject 1		10		
BBus Professional Subject 2		10		
BBus Major Subject 1		10		
Credit Points			40	
Spring session				
PROC 1008	Introduction to Materials Engineering	10		
ELEC 1003	Electrical Fundamentals	10		
BBus Major Subject 2		10		
BBus Major Subject 3		10		
Credit Points			40	
Year 3				
Autumn session				
ELEC 1006	Engineering Computing	10		
MECH 2001	Kinematics and Kinetics of Machines	10		
MECH 2003	Mechanics of Materials	10		
PROC 2003	Materials Selection and Design	10		
Credit Points			40	
Spring session				
ENGR 2032	Sustainability Analysis and Design	10		
ENGR 2001	Automated Manufacturing	10		
Credit Points			40	

MECH 3002	Advanced Mechanics of Materials	10
ENGR 2016	Pavement Materials and Design	10

Credit Points **40**

Year 4

Autumn session

PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
BBus Major Subject 4		10
BBus Major Subject 5		10

Credit Points **40**

Spring session

PROC 4001	Advanced Materials Topics	10
CIVL 4021	Sustainable Waste Engineering	10
BBus Major Subject 6		10
BBus Major Subject 7		10

Credit Points **40**

Industrial Experience

ENGR 3017	Industrial Experience (Engineering)	0
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Credit Points **40**

Year 5

Autumn session

ENGR 4025	Final Year Project 1 (UG Engineering)	10
PROC 4002	Engineering Materials from Waste	10
BBus Professional Subject 3		10
BBus Major Subject 8		10

Credit Points **40**

Spring session

ENGR 4026	Final Year Project 2 (UG Engineering)	10
MECH 3008	Thermodynamics and Heat Transfer	10
ENGR 3020	Numerical Methods in Engineering	10
BBus Professional Subject 4		10

Credit Points **40**

Total Credit Points **400**

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		
MATH 1016	Mathematics for Engineers 1	10
ENGR 1018	Fundamentals of Mechanics	10
BBus Core Subject 1		10
BBus Core Subject 2		10
Credit Points		
Year 2		
Autumn session		
PROC 1006	Materials Engineering Fundamentals	10
BBus Professional Subject 1		10
BBus Professional Subject 2		10
BBus Major Subject 1		10
Credit Points		
Year 3		
Autumn session		
ELEC 1003	Electrical Fundamentals	10
BBus Major Subject 2		10
BBus Major Subject 3		10
Credit Points		
Year 4		
Autumn session		
ENGR 2032	Sustainability Analysis and Design	10
ENGR 2001	Automated Manufacturing	10
Credit Points		

Autumn session				
MATH 1019	Mathematics for Engineers 2	10	PROC 4002	Engineering Materials from Waste
ENGR 1011	Engineering Physics	10	BBus Professional Subject 4	10
BBus Core Subject 3		10	BBus Major Subject 8	10
BBus Core Subject 4		10		
	Credit Points	40	Credit Points	40
Year 2				
Spring session				
PROC 1008	Introduction to Materials Engineering	10	ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering	
ELEC 1003	Electrical Fundamentals	10		
BBus Major Subject 1		10		
BBus Major Subject 2		10		
	Credit Points	40	Replaced Subjects	
Autumn session				
PROC 1006	Materials 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	CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering	
BBus Professional Subject 2		10		
BBus Major Subject 3		10		
	Credit Points	40		
Year 3				
Spring session				
ENGR 2032	Sustainability Analysis and Design	10		
ENGR 2001	Automated Manufacturing	10		
PROC 2003	Materials Selection and Design	10		
CIVL 4021	Sustainable Waste Engineering	10		
	Credit Points	40		
Autumn session				
ELEC 1006	Engineering Computing	10		
MECH 2001	Kinematics and Kinetics of Machines	10		
MECH 2003	Mechanics of Materials	10		
PROC 2003	Materials Selection and Design	10		
	Credit Points	40		
Year 4				
Spring session				
PROC 4001	Advanced Materials Topics	10		
MECH 3005	Mechanical Design	10		
BBus Major Subject 4		10		
BBus Major Subject 5		10		
Industrial Experience				
ENGR 3017	Industrial Experience (Engineering)	0		
	Credit Points	40		
Autumn session				
PROC 3008	Materials Processing and Applications	10		
MECH 3005	Mechanical Design	10		
BBus Major Subject 6		10		
BBus Major Subject 7		10		
	Credit Points	40		
Year 5				
Spring session				
ENGR 4025	Final Year Project 1 (UG Engineering)	10		
MECH 3008	Thermodynamics and Heat Transfer	10		
ENGR 3020	Numerical Methods in Engineering	10		
BBus Professional Subject 3		10		
	Credit Points	40		
Autumn session				
ENGR 4026	Final Year Project 2 (UG Engineering)	10		

MATH 1019	Mathematics for Engineers 2		ENGR 1018	Fundamentals of Mechanics	10																											
	Credit Points	40	PROC 1008	Introduction to Materials Engineering	10																											
Year 2			ELEC 1003	Electrical Fundamentals	10																											
Autumn session				Credit Points	40																											
MECH 2003	Mechanics of Materials	10	Autumn session																													
ELEC 1006	Engineering Computing	10	Select one of the following:		10																											
PROC 2003	Materials Selection and Design	10	MATH 1019	Mathematics for Engineers 2																												
ENGR 3029	Specialisation Workshop 1	10	MATH 1016	Mathematics for Engineers 1																												
	Credit Points	40	ENGR 1024	Introduction to Engineering Practice	10																											
Spring session			ENGR 1011	Engineering Physics	10																											
ENGR 2016	Pavement Materials and Design	10	PROC 1006	Materials Engineering Fundamentals	10																											
ENGR 2032	Sustainability Analysis and Design	10		Credit Points	40																											
MECH 3002	Advanced Mechanics of Materials	10	Year 2																													
ENGR 3030	Specialisation Workshop 2	10	Spring session																													
Industrial Experience			ENGR 2032	Sustainability Analysis and Design	10																											
ENGR 2033	Industrial Experience (Engineering Technologist)	0	ENGR 2016	Pavement Materials and Design	10																											
	Credit Points	40	ENGR 3029	Specialisation Workshop 1	10																											
Year 3			Select one elective		10																											
Autumn session			• Elective must be Level 2 or higher																													
ENGR 3013	Engineering Science Project 1	10		Credit Points	40																											
PROC 3008	Materials Processing and Applications	10	Autumn session																													
MECH 2001	Kinematics and Kinetics of Machines	10	PROC 2003	Materials Selection and Design	10																											
Select one elective		10	MECH 2003	Mechanics of Materials	10																											
• Elective must be Level 2 or higher			ELEC 1006	Engineering Computing	10																											
	Credit Points	40	ENGR 3030	Specialisation Workshop 2	10																											
Spring session			Industrial Experience																													
ENGR 3014	Engineering Science Project 2	10	ENGR 2033	Industrial Experience (Engineering Technologist)	0																											
PROC 4001	Advanced Materials Topics	10		Credit Points	40																											
CIVL 4021	Sustainable Waste Engineering	10	Year 3																													
Select one elective		10	Spring session																													
• Elective must be Level 2 or higher			ENGR 3013	Engineering Science Project 1	10																											
	Credit Points	40	PROC 4001	Advanced Materials Topics	10																											
	Total Credit Points	240	CIVL 4021	Sustainable Waste Engineering	10																											
Equivalent Subjects			MECH 3002	Advanced Mechanics of Materials	10																											
The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.				Credit Points	40																											
ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering			Autumn session																													
			ENGR 3014	Engineering Science Project 2	10																											
Replaced Subjects			PROC 3008	Materials Processing and Applications	10																											
The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.			MECH 2001	Kinematics and Kinetics of Machines	10																											
CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering			Select one elective		10																											
			• Elective must be Level 2 or higher																													
	Credit Points	40		Credit Points	40																											
	Total Credit Points	240		Total Credit Points	240																											
Equivalent Subjects			Equivalent Subjects																													
The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.			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			ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering																													
Mid-year intake			Replaced Subjects																													
Course	Title	Credit Points	Year 1			The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.			Spring session			CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering			Select one of the following:		10				MATH 1021	Mathematics for Engineers Preliminary					MATH 1016	Mathematics for Engineers 1				
Year 1			The subjects listed below count towards completion of this program for students who passed these subjects in 2023 or earlier.																													
Spring session			CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering																													
Select one of the following:		10																														
MATH 1021	Mathematics for Engineers Preliminary																															
MATH 1016	Mathematics for Engineers 1																															

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

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
ENGR 1024	Introduction to Engineering Practice	10
PROC 1006	Materials Engineering Fundamentals	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
PROC 1008	Introduction to Materials Engineering	10
ELEC 1003	Electrical 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

Autumn session

MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
PROC 1006	Materials Engineering Fundamentals	10
PROC 2003	Materials Selection and Design	10
Credit Points		40

Spring session

ENGR 2016	Pavement Materials and Design	10
ENGR 2001	Automated Manufacturing	10
ENGR 2032	Sustainability Analysis and Design	10
Select one elective** or minor subject		10
Credit Points		40

Year 3

Autumn session

MECH 3005	Mechanical Design	10
PROC 3008	Materials Processing and Applications	10
CIVL 2003	Fluid Mechanics	10
ENGR 2035	Modern Digital Design and Development	10
Credit Points		40

Spring session

PROC 4001	Advanced Materials Topics	10
CIVL 4021	Sustainable Waste Engineering	10
MECH 3008	Thermodynamics and Heat Transfer	10
MECH 3002	Advanced Mechanics of Materials	10
Industrial Experience		

ENGR 3017	Industrial Experience (Engineering)	0
Credit Points		40

Year 4

Autumn session

PROC 4002	Engineering Materials from Waste	10
ENGR 4041	Final Year Project 1 (UG Engineering)	20
Select one elective** or minor subject		10
Credit Points		40

Spring session

ENGR 4042	Final Year Project 2 (UG Engineering)	20
Select two electives** or minor subjects		20

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:		
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
	Credit Points	40
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:		
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
	Credit Points	40
Autumn session		
ENGR 1011	Engineering Physics	10
ENGR 1024	Introduction to Engineering Practice	10
ELEC 1006	Engineering Computing	10

Select one of the following:

MATH 1019	Mathematics for Engineers 2
MATH 1016	Mathematics for Engineers 1

		10	Start-year intake		
			Course	Title	Credit Points
	Credit Points	40		Year 1	
Year 2				Autumn session	
Spring session			MATH 1034	Mathematics for Engineers 1 (Advanced)	10
ENGR 2001	Automated Manufacturing	10	ENGR 1047	Advanced Engineering Physics 1	10
ENGR 2032	Sustainability Analysis and Design	10	ENGR 1024	Introduction to Engineering Practice	10
ENGR 2016	Pavement Materials and Design	10	ELEC 1006	Engineering Computing	10
Select one elective** or minor subject		10		Credit Points	40
	Credit Points	40		Spring session	
Autumn session			MATH 1035	Mathematics for Engineers 2 (Advanced)	10
PROC 2003	Materials Selection and Design	10	ENGR 1018	Fundamentals of Mechanics	10
MECH 2003	Mechanics of Materials	10	ELEC 1003	Electrical Fundamentals	10
MECH 2001	Kinematics and Kinetics of Machines	10	ENGR 2023	Advanced Engineering Physics 2	10
PROC 1006	Materials Engineering Fundamentals	10		Credit Points	40
	Credit Points	40		Year 2	
Year 3				Autumn session	
Spring session			MECH 2001	Kinematics and Kinetics of Machines	10
PROC 4001	Advanced Materials Topics	10	MECH 2003	Mechanics of Materials	10
CIVL 4021	Sustainable Waste Engineering	10	CIVL 2003	Fluid Mechanics	10
MECH 3008	Thermodynamics and Heat Transfer	10	PROC 1006	Materials Engineering Fundamentals	10
MECH 3002	Advanced Mechanics of Materials	10		Credit Points	40
	Credit Points	40		Spring session	
Autumn session			ENGR 2032	Sustainability Analysis and Design	10
MECH 3005	Mechanical Design	10	ENGR 2001	Automated Manufacturing	10
PROC 3008	Materials Processing and Applications	10	PROC 1008	Introduction to Materials Engineering	10
ENGR 2035	Modern Digital Design and Development	10	Select one elective** or Minor subject		10
CIVL 2003	Fluid Mechanics	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.		
Industrial Experience				Credit Points	40
ENGR 3017	Industrial Experience (Engineering)	0			
	Credit Points	40		Year 3	
Year 4				Autumn session	
Spring session			PROC 3008	Materials Processing and Applications	10
ENGR 4041	Final Year Project 1 (UG Engineering)	20	MECH 3005	Mechanical Design	10
PROC 4002	Engineering Materials from Waste	10	PROC 2003	Materials Selection and Design	10
Select one elective** or minor subject		10	BUSM 2049	Creative and Innovative Thinkers	10
	Credit Points	40		Credit Points	40
Autumn session				Spring session	
ENGR 4042	Final Year Project 2 (UG Engineering)	20	PROC 4001	Advanced Materials Topics	10
Select two electives** or minor subjects		20	CIVL 4021	Sustainable Waste Engineering	10
	Credit Points	40	MECH 3008	Thermodynamics and Heat Transfer	10
	Total Credit Points	320	ENGR 2016	Pavement Materials and Design	10
Bachelor of Engineering Advanced (Honours) (3771)				Industrial Experience	
Qualification for this award requires the successful completion of 320 credit points, which include the subjects listed in the recommended sequence below.			ENGR 3017	Industrial Experience (Engineering)	0
Year 4				Credit Points	40
Autumn session					
PROC 4002	Engineering Materials from Waste	10			
ENGR 4043	Advanced Engineering Thesis 1: Preliminary Investigations	20			
Select one elective** or minor subject		10			
	Credit Points	40			

** Electives must be Level 2 or higher

Spring session		Select one elective** or minor subject	10
ENGR 4044	Advanced Engineering Thesis 2: Detailed Investigations	20	
Select two electives** or minor subjects		20	
	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 2023 or earlier.

BUSM 2047 Venture Makers Foundations, replaced by BUSM 2049 Creative and Innovative Thinkers

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

Autumn session

MATH 1035	Mathematics for Engineers 2 (Advanced)	10
ENGR 1047	Advanced Engineering Physics 1	10
PROC 1006	Materials Engineering Fundamentals	10
ELEC 1006	Engineering Computing	10
	Credit Points	40

Year 2

Spring session

ENGR 2001	Automated Manufacturing	10
ENGR 2032	Sustainability Analysis and Design	10
PROC 1008	Introduction to Materials Engineering	10
Select one elective** or Minor subject		10
	Credit Points	40

Autumn session

PROC 2003	Materials Selection and Design	10
MECH 2003	Mechanics of Materials	10
MECH 2001	Kinematics and Kinetics of Machines	10
PROC 3008	Materials Processing and Applications	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

Year 3

Spring session

PROC 4001	Advanced Materials Topics	10
MECH 3008	Thermodynamics and Heat Transfer	10
ENGR 2016	Pavement Materials and Design	10
ENGR 1024	Introduction to Engineering Practice	10
	Credit Points	40

Autumn session

MECH 3005	Mechanical Design	10
CIVL 2003	Fluid Mechanics	10
BUSM 2049	Creative and Innovative Thinkers	10

Select one elective** or minor subject	10
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Industrial Experience	
ENGR 3017	Industrial Experience (Engineering)

Credit Points	40
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Year 4	
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Spring session	
ENGR 4043	Advanced Engineering Thesis 1: Preliminary Investigations
CIVL 4021	Sustainable Waste Engineering

Select one elective** or minor subject	10
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Credit Points	40
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Autumn session	
ENGR 4044	Advanced Engineering Thesis 2: Detailed Investigations
PROC 4002	Engineering Materials from Waste

Select one elective** or minor subject	10
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Credit Points	40
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Total Credit Points	320
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Equivalent Subjects

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

BUSM 2047 Venture Makers Foundations, replaced by BUSM 2049 Creative and Innovative Thinkers

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
ENGR 1011	Engineering Physics
BBus Core Subject 1	
BBus Core Subject 2	

Credit Points	40
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Spring session

MATH 1019	Mathematics for Engineers 2	10
ENGR 1018	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
BBus Core Subject 3		10

Credit Points	40
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Year 2

Autumn session	
ENGR 1018	Fundamentals of Mechanics
BBus Professional Subject 1	
BBus Professional Subject 2	

BBus Core Subject 4	10
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Credit Points	40
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Spring session

ENGR 1024	Introduction to Engineering Practice	10
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		Course	Title	Credit Points																																																																																																																						
ELEC 1006	Engineering Computing	10	Mid-year intake																																																																																																																							
MECH 3008	Thermodynamics and Heat Transfer	10																																																																																																																								
ENGR 2016	Pavement Materials and Design	10																																																																																																																								
	Credit Points	40																																																																																																																								
Year 3			Year 1																																																																																																																							
Autumn session			Spring session																																																																																																																							
PROC 1006	Materials Engineering Fundamentals	10	MATH 1016	Mathematics for Engineers 1																																																																																																																						
MECH 2001	Kinematics and Kinetics of Machines	10	ENGR 1018	Fundamentals of Mechanics																																																																																																																						
MECH 2003	Mechanics of Materials	10	BBus Core Subject 1																																																																																																																							
PROC 2003	Materials Selection and Design	10	BBus Core Subject 2																																																																																																																							
	Credit Points	40																																																																																																																								
Spring session			Credit Points	40																																																																																																																						
ENGR 2032	Sustainability Analysis and Design	10	MATH 1019	Mathematics for Engineers 2																																																																																																																						
ENGR 2001	Automated Manufacturing	10	ENGR 1011	Engineering Physics																																																																																																																						
BBus Major Subject 1		10	ENGR 1018	Fundamentals of Mechanics																																																																																																																						
BBus Major Subject 2		10	ELEC 1006	Engineering Computing																																																																																																																						
	Credit Points	40																																																																																																																								
Year 4			Year 2																																																																																																																							
Autumn session			Spring session																																																																																																																							
PROC 3008	Materials Processing and Applications	10	PROC 1008	Introduction to Materials Engineering																																																																																																																						
MECH 3005	Mechanical Design	10	ELEC 1003	Electrical Fundamentals																																																																																																																						
BBus Major Subject 3		10	BBus Core Subject 3																																																																																																																							
BBus Major Subject 4		10	BBus Core Subject 4																																																																																																																							
	Credit Points	40																																																																																																																								
Spring session			Credit Points	40																																																																																																																						
PROC 4001	Advanced Materials Topics	10	PROC 1006	Materials Engineering Fundamentals																																																																																																																						
CIVL 4021	Sustainable Waste Engineering	10	MECH 2001	Kinematics and Kinetics of Machines																																																																																																																						
BBus Major Subject 5		10	MECH 2003	Mechanics of Materials																																																																																																																						
BBus Major Subject 6		10	PROC 2003	Materials Selection and Design																																																																																																																						
	Credit Points	40																																																																																																																								
Industrial Experience			Year 3																																																																																																																							
ENGR 3017	Industrial Experience (Engineering)	0	Spring session																																																																																																																							
	Credit Points	40	MECH 3008	Thermodynamics and Heat Transfer																																																																																																																						
Year 5			Autumn session			ENGR 2016	Pavement Materials and Design	MECH 3002	Advanced Mechanics of Materials	10	BBus Professional Subject 1		ENGR 2035	Modern Digital Design and Development	10	BBus Professional Subject 2		BBus Major Subject 7		10			BBus Major Subject 8		10	Credit Points	40		Credit Points	40	Autumn session		Spring session			PROC 3008	Materials Processing and Applications	ENGR 4041	Final Year Project 1 (UG Engineering)	20	MECH 3005	Mechanical Design	BBus Professional Subject 3		10	BBus Major Subject 1		BBus Professional Subject 4		10	BBus Major Subject 2			Credit Points	40			Year 6			Credit Points	40	Autumn session			Year 4		ENGR 4042	Final Year Project 2 (UG Engineering)	20	Spring session		PROC 4002	Engineering Materials from Waste	10	ENGR 2032	Sustainability Analysis and Design	CIVL 2003	Fluid Mechanics	10	ENGR 2001	Automated Manufacturing		Credit Points	40	BBus Major Subject 3			Credit Points	40	BBus Major Subject 4			Total Credit Points	440			Industrial Experience			Credit Points	40	Autumn session			MECH 3002	Advanced Mechanics of Materials	ENGR 2035			ENGR 2035	Modern Digital Design and Development	BBus Major Subject 5			BBus Major Subject 5		BBus Major Subject 6			BBus Major Subject 6	
Autumn session			ENGR 2016	Pavement Materials and Design																																																																																																																						
MECH 3002	Advanced Mechanics of Materials	10	BBus Professional Subject 1																																																																																																																							
ENGR 2035	Modern Digital Design and Development	10	BBus Professional Subject 2																																																																																																																							
BBus Major Subject 7		10																																																																																																																								
BBus Major Subject 8		10	Credit Points	40																																																																																																																						
	Credit Points	40	Autumn session																																																																																																																							
Spring session			PROC 3008	Materials Processing and Applications																																																																																																																						
ENGR 4041	Final Year Project 1 (UG Engineering)	20	MECH 3005	Mechanical Design																																																																																																																						
BBus Professional Subject 3		10	BBus Major Subject 1																																																																																																																							
BBus Professional Subject 4		10	BBus Major Subject 2																																																																																																																							
	Credit Points	40																																																																																																																								
Year 6			Credit Points	40																																																																																																																						
Autumn session			Year 4																																																																																																																							
ENGR 4042	Final Year Project 2 (UG Engineering)	20	Spring session																																																																																																																							
PROC 4002	Engineering Materials from Waste	10	ENGR 2032	Sustainability Analysis and Design																																																																																																																						
CIVL 2003	Fluid Mechanics	10	ENGR 2001	Automated Manufacturing																																																																																																																						
	Credit Points	40	BBus Major Subject 3																																																																																																																							
	Credit Points	40	BBus Major Subject 4																																																																																																																							
	Total Credit Points	440																																																																																																																								
Industrial Experience			Credit Points	40																																																																																																																						
Autumn session			MECH 3002	Advanced Mechanics of Materials																																																																																																																						
ENGR 2035			ENGR 2035	Modern Digital Design and Development																																																																																																																						
BBus Major Subject 5			BBus Major Subject 5																																																																																																																							
BBus Major Subject 6			BBus Major Subject 6																																																																																																																							

ENGR 3017	Industrial Experience (Engineering)	0	Spring session	
	Credit Points	40		
Year 5				
Spring session				
PROC 4001	Advanced Materials Topics	10	ENGR 1018	Fundamentals of Mechanics
CIVL 4021	Sustainable Waste Engineering	10	PROC 1008	Introduction to Materials Engineering
BBus Major Subject 7		10	ELEC 1003	Electrical Fundamentals
BBus Major Subject 8		10	Select one of the following:	
			MATH 1016	Mathematics for Engineers 1
			MATH 1019	Mathematics for Engineers 2
	Credit Points	40		
Autumn session				
ENGR 4041	Final Year Project 1 (UG Engineering)	20	MECH 2003	Mechanics of Materials
PROC 4002	Engineering Materials from Waste	10	PROC 1006	Materials Engineering Fundamentals
CIVL 2003	Fluid Mechanics	10	PROC 2003	Materials Selection and Design
	Credit Points	40	ENGR 3029	Specialisation Workshop 1
Year 6				
Spring session				
ENGR 4042	Final Year Project 2 (UG Engineering)	20	ENGR 2016	Pavement Materials and Design
BBus Professional Subject 3		10	ENGR 2032	Sustainability Analysis and Design
BBus Professional Subject 4		10	MECH 3002	Advanced Mechanics of Materials
	Credit Points	40	ENGR 3030	Specialisation Workshop 2
	Total Credit Points	440		

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			
ELEC 1006	Engineering Computing	10	Year 1
ENGR 1011	Engineering Physics	10	Spring session
ENGR 1024	Introduction to Engineering Practice	10	ENGR 1018
Select one of the following:		10	Fundamentals of Mechanics
MATH 1021	Mathematics for Engineers Preliminary		PROC 1008
MATH 1016	Mathematics for Engineers 1		Introduction to Materials Engineering
	Credit Points	40	ELEC 1003
			Select one of the following:
			MATH 1021
			Mathematics for Engineers Preliminary
			MATH 1016
			Mathematics for Engineers 1
	Credit Points	40	
Autumn session			
ELEC 1006	Engineering Computing	10	
ENGR 1011	Engineering Physics	10	
ENGR 1024	Introduction to Engineering Practice	10	

Mid-year intake

Course	Title	Credit Points
Year 1		
Spring session		
ENGR 1018	Fundamentals of Mechanics	10
PROC 1008	Introduction to Materials Engineering	10
ELEC 1003	Electrical Fundamentals	10
Select one of the following:		10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
	Credit Points	40
Autumn session		
ELEC 1006	Engineering Computing	10
ENGR 1011	Engineering Physics	10
ENGR 1024	Introduction to Engineering Practice	10

Select one of the following:	10
MATH 1019 Mathematics for Engineers 2	
MATH 1016 Mathematics for Engineers 1	
Credit Points	40
Year 2	
Spring session	
ENGR 2032 Sustainability Analysis and Design	10
ENGR 2016 Pavement Materials and Design	10
ENGR 3029 Specialisation Workshop 1	10
Select one elective	10
• Elective must be Level 2 or higher	
Credit Points	40
Autumn session	
PROC 2003 Materials Selection and Design	10
MECH 2003 Mechanics of Materials	10
PROC 1006 Materials Engineering Fundamentals	10
ENGR 3030 Specialisation Workshop 2	10
Industrial Experience	
ENGR 2033 Industrial Experience (Engineering Technologist)	0
Credit Points	40
Year 3	
Spring session	
ENGR 3013 Engineering Science Project 1	10
PROC 4001 Advanced Materials Topics	10
CIVL 4021 Sustainable Waste Engineering	10
MECH 3002 Advanced Mechanics of Materials	10
Credit Points	40
Autumn session	
ENGR 3014 Engineering Science Project 2	10
PROC 3008 Materials Processing and Applications	10
MECH 2001 Kinematics and Kinetics of Machines	10
Select one elective	10
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/>)