

ADVANCED MANUFACTURING, TESTAMUR MAJOR (T126)

Western Sydney University Major Code: T126

Previous Code: MT3048.1

Available to students in other Western Sydney University programs?
No

Manufacturing is continuously transforming as it integrates automation, analytics, intelligence, digitalisation, and Internet of Things (IoT) into physical operations. In this major, you integrate techniques and methods to improve the sustainability and efficiency of manufacturing taking advantage of digitisation tools. You tackle complex problems, propose innovative solutions, and apply critical thinking to industry problems considering social, ethical and environmental factors. Job opportunities are varied and include Digital Product Design Engineer, Digital Process Engineer, Additive Manufacturing Engineer, Digital Twins Engineer, Systems Engineer, Automation Specialist, Robotics Specialists, Advanced Sensors Specialists, Industry 4.0 Transformation Specialist, etc. This major includes a mandatory 300 to 450 hour industrial placement as a completion requirement.

Location

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

Recommended Sequence

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.

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
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
Select one elective		10
• Electives 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		
MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
ELEC 2001	Circuit Theory	10
Modern Digital Design and Development (not yet available)		10
Credit Points		40
Spring session		
MECH 3004	Dynamics of Mechanical Systems	10
ENGR 2001	Automated Manufacturing	10
ELEC 2008	Microcontrollers and PLCs	10
Select one elective		10
• Electives can be any Level 2 or higher for Years 2-4 Electives		
Credit Points		40
Year 3		
Autumn session		
PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
Digital Manufacturing and IIoT (not yet available)		10
Minor Alternate Subject		10
Credit Points		40
Spring session		
MECH 4003	Mobile Robotics	10
MECH 3006	Mechatronic Design	10
Design for Advanced Manufacturing (not yet available)		10
Minor Alternate Subject		10
Industrial Experience		
ENGR 3017	Industrial Experience (Engineering)	0
Credit Points		40

Year 4**Autumn session**

ENGR 4025	Final Year Project 1 (UG Engineering)	10
MECH 4004	Robotics	10
Minor Alternate Subject		10
Select one elective		10
• Elective subject must be Level 2 or higher		

Credit Points	40
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Spring session

ENGR 4026	Final Year Project 2 (UG Engineering)	10
MECH 4002	Computer Aided Engineering	10
Minor Alternate Subject		10
Select one elective		10
• Elective subjects must be Level 2 or higher		

Credit Points	40
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Total Credit Points	320
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Minor Alternate Subjects

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

Biomedical Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/biomedical-engineering-minor/>)

Indigenous Australian Studies, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/indigenous-australian-studies-minor/>)

Materials Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/materials-engineering-minor/>)

Mid-year intake

Course	Title	Credit Points
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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	40
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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
ELEC 1006	Engineering Computing	10
Select one elective		10
• Elective unit must be Level 1 or higher		

Credit Points	40
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Year 2**Spring session**

ENGR 2001	Automated Manufacturing	10
ELEC 2008	Microcontrollers and PLCs	10
Select one elective (Level 2 or higher)		10
Minor Alternate Subject		10

Credit Points	40
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Autumn session

MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
ELEC 2001	Circuit Theory	10
Modern Digital Design and Development (not yet available)		10

Credit Points	40
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Year 3**Spring session**

MECH 4003	Mobile Robotics	10
MECH 3006	Mechatronic Design	10
MECH 3004	Dynamics of Mechanical Systems	10
Design for Advanced Manufacturing (not yet available)		10

Industrial Experience

ENGR 3017	Industrial Experience (Engineering)	0
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Credit Points	40
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Autumn session

PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
Digital Manufacturing and IIoT (not yet available)		10
Minor Alternate Subject		10

Industrial Experience

ENGR 3017	Industrial Experience (Engineering)	0
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Credit Points	40
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Year 4**Spring session**

ENGR 4025	Final Year Project 1 (UG Engineering)	10
MECH 4002	Computer Aided Engineering	10
Minor Alternate Subject		10
Select one elective (Level 2 or higher)		10

Credit Points	40
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Autumn session

ENGR 4026	Final Year Project 2 (UG Engineering)	10
MECH 4004	Robotics	10
Minor Alternate Subject		10
Select one elective (Level 2 or higher)		10

Credit Points	40
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Total Credit Points	320
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Minor Alternate Subjects

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

Biomedical Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/biomedical-engineering-minor/>)

Indigenous Australian Studies, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/indigenous-australian-studies-minor/>)

Materials Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/materials-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 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
ELEC 1003	Electrical Fundamentals	10
ENGR 1018	Fundamentals of Mechanics	10
Select one elective		10
Credit Points		40
Year 2		
Autumn session		
MECH 2003	Mechanics of Materials	10
MECH 2001	Kinematics and Kinetics of Machines	10
ELEC 2001	Circuit Theory	10
Modern Digital Design and Development (not yet available)		10
Credit Points		40
Spring session		
MECH 2005	Mathematics for Mechanical and Mechatronic Engineers	10
MECH 3004	Dynamics of Mechanical Systems	10
ELEC 2008	Microcontrollers and PLCs	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
MECH 3005	Mechanical Design	10
Digital Manufacturing and IIoT (not yet available)		10
Minor Alternate Subject		10
Credit Points		40
Spring session		
MECH 4003	Mobile Robotics	10
MECH 3006	Mechatronic Design	10
Design for Advanced Manufacturing (not yet available)		10
Minor Alternate Subject		10
Industrial Experience		
ENGR 3017	Industrial Experience (Engineering)	0
Credit Points		40
Year 4		
Autumn session		
ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10
MECH 4004	Robotics	10
Minor Alternate Subject		10
Select one elective		10

- Elective unit must be Level 2 or higher

Credit Points		40
Spring session		
ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10
Minor Alternate subject		10
Select two electives		20
• Elective subjects must be Level 2 or higher		
Credit Points		40
Total Credit Points		320

Alternate Pool

Subject	Title	Credit Points
BIOS 1022	Introduction to Human Biology	10
CEDS 3001	Bridging the Gap: Re-engaging Indigenous Learners	10
ENGR 4038	Biomedical Electronics	10
ENGR 3004	Biomedical Signals and Data Analysis	10
HLTH 2003	Biomechanics	10
HUMN 1013	Contextualising Indigenous Australia (Day Mode)	10
HUMN 1058	Indigenous Landscapes	10
HUMN 2038	Pigments of the Imagination	10
HUMN 2048	Revaluating Indigenous Economics (Day Mode)	10
HUMN 3082	The Making of the 'Aborigines'	10
HUMN 3070	Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)	10
PERF 2011	From Corroborees to Curtain Raisers (Day Mode)	10
PROC 1008	Introduction to Materials Engineering	10
PROC 2003	Materials Selection and Design	10
PROC 4001	Advanced Materials Topics	10
PROC 4002	Engineering Materials from Waste	10
VISU 2003	From Ochre to Acrylics to New Technologies	10
WELF 3008	Learning through Indigenous Australian Community Service (Day Mode)	10

Minor Alternate Subjects

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

Biomedical Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/biomedical-engineering-minor/>)
 Indigenous Australian Studies, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/indigenous-australian-studies-minor/>)
 Materials Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/materials-engineering-minor/>)

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

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 1024	Introduction to Engineering Practice	10
Credit Points		40
Autumn session		
MATH 1035	Mathematics for Engineers 2 (Advanced)	10
ENGR 1047	Advanced Engineering Physics 1	10
ELEC 1006	Engineering Computing	10
Modern Digital Design and Development (not yet available)		10
Credit Points		40
Year 2		
Spring session		
MECH 2005	Mathematics for Mechanical and Mechatronic Engineers	10
ENGR 2001	Automated Manufacturing	10
ELEC 2008	Microcontrollers and PLCs	10
Select one elective		10
• Elective unit must be Level 2 or higher		
Credit Points		40
Autumn session		
MECH 2003	Mechanics of Materials	10
MECH 2001	Kinematics and Kinetics of Machines	10
ELEC 2001	Circuit Theory	10
select one elective		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		
MECH 4003	Mobile Robotics	10
MECH 3006	Mechatronic Design	10
Design for Advanced Manufacturing (not yet available)		10
MECH 3004	Dynamics of Mechanical Systems	10
Credit Points		40
Autumn session		
PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
Digital Manufacturing and IIoT (not yet available)		10
Minor Alternate Subject		10
Industrial Experience		

ENGR 3017	Industrial Experience (Engineering)	0
Credit Points		40
Year 4		
Spring session		
ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10
Minor Alternate Subject		10
Minor Alternate Subject		10
Select one elective		10
• Elective unit must be Level 2 or higher		
Credit Points		40
Autumn session		
ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10
MECH 4004	Robotics	10
Minor Alternate Subject		10
Select one elective		10
• Elective unit must be Level 2 or higher		
Credit Points		40
Total Credit Points		320

Alternate Pool

Subject	Title	Credit Points
BIOS 1022	Introduction to Human Biology	10
CEDS 3001	Bridging the Gap: Re-engaging Indigenous Learners	10
ENGR 4038	Biomedical Electronics	10
ENGR 3004	Biomedical Signals and Data Analysis	10
HLTH 2003	Biomechanics	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
HUMN 3082	The Making of the 'Aborigines'	10
HUMN 3070	Rethinking Research with Indigenous Australians: Independent Study Project (Day Mode)	10
PERF 2011	From Corroborees to Curtain Raisers (Day Mode)	10
PROC 1008	Introduction to Materials Engineering	10
PROC 2003	Materials Selection and Design	10
PROC 4001	Advanced Materials Topics	10
PROC 4002	Engineering Materials from Waste	10
VISU 2003	From Ochre to Acrylics to New Technologies	10
WELF 3008	Learning through Indigenous Australian Community Service (Day Mode)	10

Minor Alternate Subjects

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

Biomedical Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/biomedical-engineering-minor/>)
 Indigenous Australian Studies, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/indigenous-australian-studies-minor/>)

Materials Engineering, Minor (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/materials-engineering-minor/>)

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

Bachelor of Engineering (Honours)/ Bachelor of Business

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
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		
ELEC 1006	Engineering Computing	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		
MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10

ELEC 2001	Circuit Theory	10
Modern Digital Design and Development (not yet available)		10

Credit Points 40

Spring session

ENGR 2001	Automated Manufacturing	10
MECH 3004	Dynamics of Mechanical Systems	10
ELEC 2008	Microcontrollers and PLCs	10
MECH 4003	Mobile Robotics	10

Credit Points 40

Year 4

Autumn session

PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
Digital Manufacturing and IIoT (not yet available)		10
BBus Major Subject 4		10

Credit Points 40

Spring session

Design for Advanced Manufacturing (not yet available)		10
BBus Major Subject 5		10
BBus Major Subject 6		10
BBus Major Subject 7		10

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
MECH 4004	Robotics	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 4002	Computer Aided Engineering	10
MECH 3006	Mechatronic Design	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

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		40
Autumn session		
MATH 1019	Mathematics for Engineers 2	10

ENGR 1011	Engineering Physics	10
BBus Core Subject 3		10
BBus Core Subject 4		10
Credit Points		40

Year 2**Spring session**

PROC 1008	Introduction to Materials Engineering	10
ELEC 1003	Electrical Fundamentals	10
BBus Major Subject 1		10
BBus Major Subject 2		10
Credit Points		40

Autumn session

ELEC 1006	Engineering Computing	10
BBus Professional Subject 1		10
BBus Professional Subject 2		10
BBus Major Subject 3		10
Credit Points		40

Year 3**Spring session**

ENGR 2001	Automated Manufacturing	10
MECH 3006	Mechatronic Design	10
ELEC 2008	Microcontrollers and PLCs	10
MECH 4003	Mobile Robotics	10
Credit Points		40

Autumn session

MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
ELEC 2001	Circuit Theory	10
Modern Digital Design and Development (not yet available)		10
Credit Points		40

Year 4**Spring session**

BBus Major Subject 4		10
Design for Advanced Manufacturing (not yet available)		10
BBus Major Subject 5		10
BBus Major Subject 6		10
Credit Points		40

Autumn session

PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
Digital Manufacturing and IIoT (not yet available)		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
MECH 4002	Computer Aided Engineering	10
MECH 3004	Dynamics of Mechanical Systems	10
BBus Professional Subject 3		10
Credit Points		40

Autumn session

ENGR 4026	Final Year Project 2 (UG Engineering)	10
MECH 4004	Robotics	10
BBus Professional Subject 4		10

BBus Major Subject 8	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

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.

*** 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
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
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**

MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10

ELEC 2001	Circuit Theory	10
ENGR 3029	Specialisation Workshop 1	10
Credit Points		40
Spring session		
MECH 3004	Dynamics of Mechanical Systems	10
ENGR 2001	Automated Manufacturing	10
ELEC 2008	Microcontrollers and PLCs	10
ENGR 3030	Specialisation Workshop 2	10
Industrial Experience		
ENGR 2033	Industrial Experience (Engineering Technologist)	0
Credit Points		40
Year 3		
Autumn session		
ENGR 3013	Engineering Science Project 1	10
MECH 3005	Mechanical Design	10
Modern Digital Design and Development (not yet available)		10
Digital Manufacturing and IIoT (not yet available)		10
Credit Points		40
Spring session		
ENGR 3014	Engineering Science Project 2	10
MECH 4003	Mobile Robotics	10
Design for Advanced Manufacturing (not yet available)		10
Select one elective		10
• Elective must be Level 2 or higher		
Credit Points		40
Total Credit Points		240

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		40
Autumn session		
Select one of the following:		10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
ENGR 1011	Engineering Physics	10
ELEC 1006	Engineering Computing	10
Select one elective		10
• Elective unit must be Level 1 or higher		
Credit Points		40
Year 2		
Spring session		
ENGR 3029	Specialisation Workshop 1	10
ENGR 2001	Automated Manufacturing	10
ELEC 2008	Microcontrollers and PLCs	10

Select one elective (Level 2 or higher)		10
Credit Points		40
Autumn session		
MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
ELEC 2001	Circuit Theory	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
MECH 4003	Mobile Robotics	10
MECH 3004	Dynamics of Mechanical Systems	10
Design for Advanced Manufacturing (not yet available)		10
Credit Points		40
Autumn session		
ENGR 3014	Engineering Science Project 2	10
MECH 3005	Mechanical Design	10
Modern Digital Design and Development (not yet available)		10
Digital Manufacturing and IIoT (not yet available)		10
Credit Points		40
Total Credit Points		240

Related Programs

- Bachelor of Engineering (Honours)/Bachelor of Business (3728) (<https://hbook.westernsydney.edu.au/archives/2022-2023/programs/bachelor-engineering-honours-bachelor-business/>)
- Bachelor of Engineering (Honours) (3740) (<https://hbook.westernsydney.edu.au/archives/2022-2023/programs/bachelor-engineering-honours/>)
- Bachelor of Engineering Science (3691) (<https://hbook.westernsydney.edu.au/archives/2022-2023/programs/bachelor-engineering-science/>)