Credit Points

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	Ye
Parramatta Campus - Victoria Road	Internal	Program Advice (edbe@westernsydney.ed	Αι UΜ
Parramatta City Campus-Macquarie Street	Internal	Program Advice (edbe@westernsydney.ed	M ^U EL M
Penrith Campus	Internal	Program Advice	_

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.

Title

Start-year intake

Course

		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 f		10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
0	Credit Points	40
Spring session FNGB 1018	Fundamentals of Machanias	10
	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
Select one elective		10
• Electives can i	pe any Level for Year 1 Elective	
Select one of the f	ollowing:	10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
	Credit Points	40
Year 2		
Autumn session		
^U MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
^u ELÈC 2001	Circuit Theory	10
	sign and Development (not yet available)	10
	Credit Points	40
lu.au) 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	be any Level 2 or higher for Years 2-4	
Electives	,	
	Out dis Daines	40
Year 3	Credit Points	40
Autumn session		
PROC 3008	Matariala Dragoning and Applications	10
	Materials Processing and Applications	
MECH 3005	Mechanical Design	10
-	ring and IIoT (not yet available)	10
Minor Alternate Su	Credit Points	10 40
Chring coccion	Credit Points	40
Spring session MECH 4003	Mobile Robotics	10
MECH 4003 MECH 3006		
0000	Mechatronic Design	10
_	ed Manufacturing (not yet available)	10
Minor Alternate Su	•	10
Industrial Experier		^
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 Sub	ect	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
MECH 4002	Computer Aided Engineering	10
Minor Alternate Subject		10
Select one elective		10
Elective subjects	s must be Level 2 or higher	
-	Credit Points	40
	Total Credit Points	320

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
Year 1		
Spring session		
Select one of the f	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 f	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	e	10
Elective unit n	nust be Level 1 or higher	
	Credit Points	40
Year 2		
Spring session		
ENGR 2001	Automated Manufacturing	10
ELEC 2008	Microcontrollers and PLCs	10
Select one elective	e (Level 2 or higher)	10
Minor Alternate Subject		10
	Credit Points	40

MECH 2001	Kinematics and Kinetics of Machines	10
MECH 2003	Mechanics of Materials	10
ELEC 2001	Circuit Theory	10
Modern Digital Des	sign and Development (not yet available)	10
	Credit Points	40
Year 3		
Year 3 Spring session		
	Mobile Robotics	10
Spring session	Mobile Robotics Mechatronic Design	10 10

10

320

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	
Digital Manufacturing and IIoT (not yet available)		10	
Minor Alternate Subject		10	
Industrial Experience			
ENGR 3017	Industrial Experience (Engineering)	0	
	Credit Points	40	

Design for Advanced Manufacturing (not yet available)

Year 4 Spring session

0-- 4:4

Autumn session MECH 2001

	Credit Points	40
Select one elective (Level 2 or higher)		10
Minor Alternate Subject		
MECH 4004	Robotics	10
ENGR 4026	Final Year Project 2 (UG Engineering)	10
Autumn session		
	Credit Points	40
Select one elective	(Level 2 or higher)	10
Minor Alternate Sub	ject	10
MECH 4002	Computer Aided Engineering	10
ENGR 4025	Final Year Project 1 (UG Engineering)	10
opining account		

Minor Alternate Subjects

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

Total Credit Points

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 inta	ke	
Course	Title	Credit
3333		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 Des	sign and Development (not yet available)	10
	Credit Points	40
Spring session		
MECH 2005	Mathematics for Mechanical and	10
	Mechatronic Engineers	
MECH 3004	Dynamics of Mechanical Systems	10
ELEC 2008	Microcontrollers and PLCs	10
ENGR 2001	Automated Manufacturing	10
of completion of 1	to maintain a minimum GPA of 5.0 at the end 60 Credit Points, and again at the completion s will be automatically transferred to the B.	
Engineering (Hono	urs) (3740) program.	
	Credit Points	40
Year 3		
Autumn session		
PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
Digital Manufactur	ing and IIoT (not yet available)	10
Minor Alternate Su	bject	10
	Credit Points	40
Spring session		
MECH 4003	Mobile Robotics	10
MECH 3006	Mechatronic Design	10
Design for Advanc	ed Manufacturing (not yet available)	10
Minor Alternate Su	bject	10
Industrial Experien	ice	
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 Su	bject	10

Select one elective

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 subj	ects 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 Mod	le) 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 Mod	e) 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

10

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

Course	ritte	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 De	sign 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	e	10
 Elective unit m 	nust be Level 2 or higher	
	Credit Points	40
Autumn session	orealt i onits	40
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 1	60 Credit Points, and again at the completion	
	ts will be automatically transferred to the B.	
Engineering (Hono	ours) (3740) program.	
	Credit Points	40
Year 3		
Spring session		
MECH 4003	Mobile Robotics	10
MECH 3006	Mechatronic Design	10
_	ed Manufacturing (not yet available)	10
MECH 3004	Dynamics of Mechanical Systems	10
	Credit Points	40
Autumn session		10
PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
-	ring and IIoT (not yet available)	10
Minor Alternate Su	-	10
Industrial Experier	ice	

ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	40
Year 4		
Spring session		
ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10
Minor Alternate Sub	pject	10
Minor Alternate Sub	pject	10
Select one elective		10
Elective unit mu	ust 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 Sub	Minor Alternate Subject	
Select one elective		10
Elective unit mu	ust be Level 2 or higher	
	Credit Points	40
	Total Credit Points	320

Alternate Pool

Credit

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 Mod	le) 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 Mod	e) 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

Title

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

		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	12	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 Desi	gn 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 Manufacturii	ng and IIoT (not yet available)	10
BBus Major Subject	4	10
	Credit Points	40
Spring session		
Design for Advance	d Manufacturing (not yet available)	10
BBus Major Subject	5	10
BBus Major Subject	6	10
BBus Major Subject	7	10
Industrial Experience	ee	
ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	40
Year 5		
Autumn session		
ENGR 4025	Final Year Project 1 (UG Engineering)	10
MECH 4004	Robotics	10
BBus Professional S	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

Credit

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 Subje		10
BBus Core Subje		10
	Credit Points	40
Year 2		
Spring session		
PROC 1008	Introduction to Materials Engineering	10
ELEC 1003	Electrical Fundamentals	10
BBus Major Subj		10
BBus Major Subj		10
	Credit Points	40
Autumn session	5	1.0
ELEC 1006	Engineering Computing	10
BBus Profession	•	10
BBus Profession	·	10
BBus Major Subj		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 D	esign and Development (not yet available)	10
	Credit Points	40
Year 4		
Spring session		
BBus Major Subj		10
	nced Manufacturing (not yet available)	10
BBus Major Subj		10
BBus Major Subj		10
	Credit Points	40
Autumn session		10
PROC 3008	Materials Processing and Applications	10
MECH 3005	Mechanical Design	10
•	curing and IIoT (not yet available)	10
BBus Major Subj		10
Industrial Experi		0
ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	40
Year 5		
Spring session	5' IV B ' 11/10 E ' ' ')	1.0
ENGR 4025	Final Year Project 1 (UG Engineering)	10
MECH 4002	Computer Aided Engineering	10
MECH 3004	Dynamics of Mechanical Systems	10
BBus Profession		10
	Credit Points	40
Autumn session		
ENGR 4026	Final Year Project 2 (UG Engineering)	10
MECH 4004	Robotics	10
BBus Profession	al 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 foll	owing:	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 foll	owing:	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	1(
ELEC 2008	Microcontrollers and PLCs	10
ENGR 3030	Specialisation Workshop 2	1(
Industrial Experie		
ENGR 2033	Industrial Experience (Engineering Technologist)	(
	Credit Points	40
Year 3		
Autumn session		
ENGR 3013	Engineering Science Project 1	10
MECH 3005	Mechanical Design	10
	sign and Development (not yet available)	10
Digital Manufactu	ring 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 Advanc	ced Manufacturing (not yet available)	10
Select one elective	e	10
 Elective must 	be Level 2 or higher	
	20 20 0 2 0 1 1 giro	
	Credit Points	40
		40
	Credit Points Total Credit Points	
Mid-year intal	Credit Points Total Credit Points	
	Credit Points Total Credit Points	240 Credi
Mid-year intal Course	Credit Points Total Credit Points	240
Mid-year intal Course Year 1	Credit Points Total Credit Points	240 Credi
Mid-year intal Course Year 1 Spring session	Credit Points Total Credit Points (e Title	240 Credi
Mid-year intal Course Year 1	Credit Points Total Credit Points (Ce Title following:	240 Credi Points
Mid-year intal Course Year 1 Spring session	Credit Points Total Credit Points (e Title	24 Credi Point
Mid-year intal Course Year 1 Spring session Select one of the 1	Credit Points Total Credit Points (Ce Title following:	24 Credi Point
Mid-year intal Course Year 1 Spring session Select one of the f	Credit Points Total Credit Points (Ce Title following: Mathematics for Engineers Preliminary	240 Credi Points
Mid-year intal Course Year 1 Spring session Select one of the 1 MATH 1021 MATH 1016	Credit Points Total Credit Points (CE Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1	Credit Point:
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018	Credit Points Total Credit Points (CE Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice	Credi Points
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003	Credit Points Total Credit Points (Ce Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals	Credi Points
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003	Credit Points Total Credit Points (CE Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice	Credi Points
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024	Credit Points Total Credit Points (CE Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points	240 Credit Point:
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session	Credit Points Total Credit Points (CE Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points	240 Credit Point:
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f	Credit Points Total Credit Points (Ce Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following:	240 Credit Point:
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016	Credit Points Total Credit Points (CE Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following: Mathematics for Engineers 1	240 Credit Points 10 10 10 40 11
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1016 MATH 1019	Credit Points Total Credit Points (CE Title Following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points Following: Mathematics for Engineers 1 Mathematics for Engineers 2	240 Credi Points 10 10 10 10 10 10 10 10 10 10 10 10 10
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1019 ENGR 1011	Credit Points Total Credit Points (Ce Title Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following: Mathematics for Engineers 1 Mathematics for Engineers 2 Engineering Physics Engineering Computing	240 Credit Points 10 10 10 10 10 10 10 10 10 10 10 10 10
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1019 ENGR 1011 ELEC 1006 Select one elective	Credit Points Total Credit Points (Ce Title Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following: Mathematics for Engineers 1 Mathematics for Engineers 2 Engineering Physics Engineering Computing	240 Credit Points 10 10 10 10 10 10 10 10 10 10 10 10 10
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1019 ENGR 1011 ELEC 1006 Select one elective	Credit Points Total Credit Points (CE Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following: Mathematics for Engineers 1 Mathematics for Engineers 2 Engineering Physics Engineering Computing	244 Credi Points 10 10 10 10 10 10 10 10 10 1
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1019 ENGR 1011 ELEC 1006 Select one elective	Credit Points Total Credit Points (CE Title Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following: Mathematics for Engineers 1 Mathematics for Engineers 2 Engineering Physics Engineering Computing enust be Level 1 or higher	244 Credi Point 10 10 10 10 10 10 10 10 10 1
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1019 ENGR 1011 ELEC 1006 Select one elective • Elective unit n	Credit Points Total Credit Points (CE Title Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following: Mathematics for Engineers 1 Mathematics for Engineers 2 Engineering Physics Engineering Computing enust be Level 1 or higher	244 Credi Point 10 10 10 10 10 10 10 10 10 1
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1019 ENGR 1011 ELEC 1006 Select one elective • Elective unit m	Credit Points Total Credit Points (CE Title Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following: Mathematics for Engineers 1 Mathematics for Engineers 2 Engineering Physics Engineering Computing enust be Level 1 or higher	240 Credi Points 10 10 10 10 10 10 40 40 40 40
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1019 ENGR 1011 ELEC 1006 Select one elective • Elective unit m Year 2 Spring session	Credit Points Total Credit Points (Ce Title Title following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points following: Mathematics for Engineers 1 Mathematics for Engineers 2 Engineering Physics Engineering Computing enust be Level 1 or higher Credit Points	240 Credi
Mid-year intal Course Year 1 Spring session Select one of the f MATH 1021 MATH 1016 ENGR 1018 ELEC 1003 ENGR 1024 Autumn session Select one of the f MATH 1016 MATH 1019 ENGR 1011 ELEC 1006 Select one elective • Elective unit m Year 2 Spring session ENGR 3029	Credit Points Total Credit Points (CE Title Following: Mathematics for Engineers Preliminary Mathematics for Engineers 1 Fundamentals of Mechanics Electrical Fundamentals Introduction to Engineering Practice Credit Points Following: Mathematics for Engineers 1 Mathematics for Engineers 2 Engineering Physics Engineering Computing enust be Level 1 or higher Credit Points Specialisation Workshop 1	244 Credi Point 10 10 10 10 10 10 40 10 10 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 Experi	ence		
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 Advar	nced 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 Manufact	Digital Manufacturing and IIoT (not yet available)		
	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.we stern sydney. 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/)