CIVIL ENGINEERING, TESTAMUR MAJOR (T131)

Western Sydney University Major Code: T131

Previous Code: MT3051.1

Available to students in other Western Sydney University programs? No

Civil engineering covers the fields of structural design, geotechnical engineering and water engineering, together with infrastructure design and environmental engineering. Graduates may pursue career paths in the fields of design, construction and management of engineering structures and be associated with private industry, government departments, or in city, municipal or shire councils. These career paths may include engineering projects related to residential and commercial buildings, highways and airports, water supply and sewerage schemes, etc. This major includes a mandatory 300 to 450 hour industrial placement as a completion requirement.

Location			ENGR 2016	Pavement Materials and Design	10
Campus	Mode	Advice	CIVL 2007	Introduction to Structural Engineering	10
Parramatta Campus - Victoria Road	Internal	Program Advice (edbe@westernsydney.ed	CIVL 2002 ^{IU} CIVL 3011	Environmental Engineering Hydraulics	10 10
Parramatta City Campus-Macquarie Street	Internal	Program Advice	Students may transf	fer to 3740 Bachelor of Engineering achelor of Engineering Science at the end	
Penrith Campus	Internal	Program Advice (edbe@westernsydney.ed	Students who fail to ^{Iu} of completion of 160	maintain a minimum GPA of 5.0 at the end) Credit Points, and again at the completion	
Sydney City Campus	Internal	Peter Lendrum (https://		will be automatically transferred to the B.	
		directory.westernsydney. search/email/ p.lendrum@city.westerns		Credit Points	40

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 course as noted below.

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

Bachelor of Engineering Advanced (Honours)

This Major will be offered at Engineering Innovation Hub - Hassall St, Parramatta City Campus.

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

	ELEC 1006	Engineering Computing	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
	Elective must be	Level 1 or higher	
		Credit Points	40
	Year 2		
	Autumn session		
	CIVL 1001	Surveying for Engineers	10
	MECH 2003	Mechanics of Materials	10
	CIVL 2003	Fluid Mechanics	10
	CIVL 2012	Soil Mechanics	10
		Credit Points	40
	Spring session		
	ENGR 2016	Pavement Materials and Design	10
	CIVL 2007	Introduction to Structural Engineering	10
	CIVL 2002	Environmental Engineering	10
dι	CIVL 3011	Hydraulics	10
dι		er to 3740 Bachelor of Engineering achelor of Engineering Science at the end	
	,	maintain a minimum GPA of 5.0 at the end	
du	of completion of 160 of 200 Credit points	Credit Points, and again at the completion will be automatically transferred to the B.	
	Engineering (Honour du.au/		
		Credit Points	40
sy	Year 3 dney.edu.au) Autumn session		
	CIVL 3014	Structural Analysis	10
	CIVL 4017	Surface Water Hydrology	10
	CIVL 3002	Concrete Structures (UG)	10
	One Alternate subject		10
		Credit Points	40
	Spring session		
	CIVL 3012	Steel Structures	10
	CIVL 3007	Engineering Geomechanics	10
	ENGR 3020	Numerical Methods in Engineering	10
	One Alternate subject		10
	Industrial Experience	2	
	ENGR 3017	Industrial Experience (Engineering)	0
		Credit Points	40
	Year 4		
	Autumn session		
	ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10
	One Alternate Subject	ct	10
	Select two electives		20
	 Elective subjects 	must be Level 2 or higher	
		Credit Points	40
	Spring session		-
	ENGR 4035	Smart and Liveable Cities	10

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ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10
One Alternate sub	ject	10
Select one electiv	e	10
 Elective subje 	cts must be Level 2 or higher	

	Credit Points	40
	Total Credit Points	320
Alternate Sub	jects	
Subject	Title	Credit Points
ENGR 3001	Advanced Engineering Topic 1	10
ENGR 4001	Advanced Engineering Topic 2	10
CIVL 4001	Applied Mechanics	10
CIVL 3022	Bridge Embankment Design	10
CIVL 3021	Bridge Engineering Design	10
CIVL 4002	Composite Structures	10
CIVL 3010	Highway Infrastructure	10
CIVL 3018	Hydrogeology	10
CIVL 4008	Pile Foundations	10
EART 3005	Statistical Hydrology	10
CIVL 3020	Sustainable Waste Engineering	10
CIVL 4009	Timber Structures (UG)	10
CIVL 4012	Water Resource Engineering	10
CIVL 2018	Water Supply Systems Design	10
Optional Elec	tives	
Subject	Title	Credit Points

	F	oints
BLDG 4006	Modern Construction Enterprises	10
BLDG 4007	Modern Construction Projects	10
students who are subject can be ta	pject is an optional elective subject offered to engaged in a School approved project. This ken during the third year of this program, howeve uired to enrol in the subject.	er,
ENGR 3022	Special Technical Project	10

Minors

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

Geotechnical, Minor (https://hbook.westernsydney.edu.au/ archives/2022-2023/majors-minors/geotechnical-minor/) Structures, Minor (https://hbook.westernsydney.edu.au/ archives/2022-2023/majors-minors/structures-minor/) Water and Environment, Minor (https://hbook.westernsydney.edu.au/ archives/2022-2023/majors-minors/water-environment-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
PROC 1008	Introduction to Materials Engineering	10
ENGR 1024	Introduction to Engineering Practice	10
	Credit Points	40
Autumn session		
MATH 1035	Mathematics for Engineers 2 (Advanced)	10
MECH 2003	Mechanics of Materials	10
ENGR 1047	Advanced Engineering Physics 1	10
ELEC 1006	Engineering Computing	10
	Credit Points	40
Year 2		
Spring session		
CIVL 2007	Introduction to Structural Engineering	10
CIVL 2002	Environmental Engineering	10
ENGR 2016	Pavement Materials and Design	10
Select one elective		10
Elective unit mus	t be Level 2 or higher	
	Credit Points	40
Autumn session		
CIVL 3014	Structural Analysis	10
CIVL 2003	Fluid Mechanics	10
CIVL 2012	Soil Mechanics	10
select one elective (le	evel 2 or higher)	10
-	er to 3740 Bachelor of Engineering achelor of Engineering Science at the end	
of completion of 160 of 200 Credit points v	maintain a minimum GPA of 5.0 at the end Credit Points, and again at the completion vill be automatically transferred to the B.	
Engineering (Honours	Credit Points	40
Year 3		40
Spring session		
CIVL 3012	Steel Structures	10
ENGR 3020	Numerical Methods in Engineering	10
CIVL 3011	Hydraulics	10
One Alternate subject	•	10
	Credit Points	40
Autumn session		40
CIVL 1001	Surveying for Engineers	10
CIVL 4017	Surface Water Hydrology	10
CIVL 3002	Concrete Structures (UG)	10
One Alternate subject		10
-		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
ENGR 4035	Smart and Liveable Cities	10
CIVL 3007	Engineering Geomechanics	10
One Alternate subject	t	10
	Credit Points	40
Autumn session		
ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10
One Alternate subject	t	10
Select two electives		20
Elective unit mus	st be Level 2 or higher	
	Credit Points	40
	Total Credit Points	320

Alternate Subjects 0.......

Subject	Title	Credit Points
ENGR 3001	Advanced Engineering Topic 1	10
ENGR 4001	Advanced Engineering Topic 2	10
CIVL 4001	Applied Mechanics	10
CIVL 3022	Bridge Embankment Design	10
CIVL 3021	Bridge Engineering Design	10
CIVL 4002	Composite Structures	10
CIVL 3010	Highway Infrastructure	10
CIVL 3018	Hydrogeology	10
CIVL 4008	Pile Foundations	10
EART 3005	Statistical Hydrology	10
CIVL 3020	Sustainable Waste Engineering	10
CIVL 4009	Timber Structures (UG)	10
CIVL 4012	Water Resource Engineering	10
CIVL 2018	Water Supply Systems Design	10

Optional Electives Subject Title

Subject	Title	Credit Points
BLDG 4006	Modern Construction Enterprises	10
BLDG 4007	Modern Construction Projects	10
students who are subject can be ta	bject is an optional elective subject offered to e engaged in a School approved project. This aken during the third year of this program, howev quired to enrol in the subject.	ver,
ENGR 3022	Special Technical Project	10

Minors

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

Geotechnical, Minor (https://hbook.westernsydney.edu.au/ archives/2022-2023/majors-minors/geotechnical-minor/) Structures, Minor (https://hbook.westernsydney.edu.au/ archives/2022-2023/majors-minors/structures-minor/) Water and Environment, Minor (https://hbook.westernsydney.edu.au/ archives/2022-2023/majors-minors/water-environment-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 Science

This Major will be offered at Parramatta, Penrith and Sydney City campuses.

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
ENGR 1011	Engineering Physics	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
PROC 1008	Introduction to Materials Engineering	10
Select one elective		10
Select one of the foll	owing:	10
MATH 1016	Mathematics for Engineers 1	

	Total Credit Points	240
	Credit Points	40
ENGR 2033	Industrial Experience (Engineering Technologist)	0
Industrial Experie	nce	
Elective must	be Level 2 or higher	
Select one elective		10
CIVL 2002	Environmental Engineering	10
ENGR 3014	Engineering Science Project 2	10
CIVL 3012	Steel Structures	10
Spring session	Credit Points	40
CIVL 2012	Soil Mechanics	10
ENGR 3013	Engineering Science Project 1	10
CIVL 3002	Concrete Structures (UG)	10
CIVL 3014	Structural Analysis	10
Autumn session		10
Year 3		
	Credit Points	40
ENGR 3030	Specialisation Workshop 2	10
CIVL 3011	Hydraulics	10
CIVL 2007	Introduction to Structural Engineering	10
ENGR 2016	Pavement Materials and Design	10
Spring session		
	Credit Points	40
ENGR 3029	Specialisation Workshop 1	10
CIVL 2003	Fluid Mechanics	10
MECH 2003	Mechanics of Materials	10
CIVL 1001	Surveying for Engineers	10
Autumn session		
Year 2		
	Credit Points	40
MATH 1019	Mathematics for Engineers 2	

Optional Elective

The following subject is an optional elective unit offered to students who are engaged in a School approved project. This subject can be taken during the third year of this program, however, permission is required to enrol in the subject.

ENGR 3022 Special Technical Project

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		
Select one of the fo	lowing:	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 foll	owing:	10
MATH 1019	Mathematics for Engineers 2	
MATH 1016	Mathematics for Engineers 1	
MECH 2003	Mechanics of Materials	10
ENGR 1011	Engineering Physics	10
Select one elective		10
Elective unit mus	st be Level 1 or higher	
	Credit Points	40
Year 2		40
Spring session		
CIVL 2007	Introduction to Structural Engineering	10
CIVL 2002	Environmental Engineering	10
ENGR 2016	Pavement Materials and Design	10
ENGR 3029	Specialisation Workshop 1	10
	Credit Points	40
Autumn session	creat roms	40
CIVL 3014	Structural Apolygia	10
ELEC 1006	Structural Analysis	10
CIVL 2003	Engineering Computing Fluid Mechanics	10
ENGR 3030	Specialisation Workshop 2	10
Veer 2	Credit Points	40
Year 3		
Spring session		10
CIVL 3012	Steel Structures	10
CIVL 3011	Hydraulics	10
ENGR 3013	Engineering Science Project 1	10
Select one elective		10
	ust be level 2 or higher (an exception	
Preliminary subject)	completing Mathematics for Engineers	
	Credit Points	40
Autumn session		
CIVL 1001	Surveying for Engineers	10
CIVL 2012	Soil Mechanics	10
CIVL 3002	Concrete Structures (UG)	10
ENGR 3014	Engineering Science Project 2	10
Industrial Experience		
ENGR 2033	Industrial Experience (Engineering	0
	Technologist)	0
	Credit Points	40
	Total Credit Points	240

Optional Elective

The following subject is an optional elective unit offered to students who are engaged in a School approved project. This subject can be taken during the third year of this program, however, permission is required to enrol in the subject.

ENGR 3022 Special Technical Project

Equivalent Subjects

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

Ω

10

10

10

10

10

Industrial Experience (Engineering)

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

Bachelor of Engineering (Honours)

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

Start-year intake

Start year intake			
Course	Title	Credit Points	
Year 1			
Autumn session			
ELEC 1006	Engineering Computing	10	
ENGR 1011	Engineering Physics	10	
ENGR 1024	Introduction to Engineering Practice	10	
Select one of the fo	bllowing:	10	
MATH 1021	Mathematics for Engineers Preliminary		
MATH 1016	Mathematics for Engineers 1		
	Credit Points	40	
Spring session			
Select one of the fo	bllowing:	10	
MATH 1019	Mathematics for Engineers 2		
MATH 1016	Mathematics for Engineers 1		
ENGR 1018	Fundamentals of Mechanics	10	
PROC 1008	Introduction to Materials Engineering	10	
Select one elective		10	
Elective unit m	ust be Level 1 or higher		
	5		
	Credit Points	40	
Year 2			
Autumn session			
CIVL 1001	Surveying for Engineers	10	
MECH 2003	Mechanics of Materials	10	
CIVL 2003	Fluid Mechanics	10	
CIVL 2012	Soil Mechanics	10	
	Credit Points	40	
Spring session			
ENGR 2016	Pavement Materials and Design	10	
CIVL 2007	Introduction to Structural Engineering	10	
CIVL 2002	Environmental Engineering	10	
CIVL 3011	Hydraulics	10	
	Credit Points	40	
Year 3			
Autumn session			
CIVL 3014	Structural Analysis	10	
CIVL 4017	Surface Water Hydrology	10	
CIVL 3002	Concrete Structures (UG)	10	
One Alternate subj		10	
,	Credit Points	40	
Spring session			
CIVL 3012	Steel Structures	10	
CIVL 3007	Engineering Geomechanics	10	
ENGR 3020	Numerical Methods in Engineering	10	
One Alternate subje		10	
Industrial Experien		10	

Industrial Experience

		0
	Credit Points	40
Year 4		
Autumn sessio	n	
ENGR 4025	Final Year Project 1 (UG Engineering)	10
One Alternate	subject	10
Select two elec	otives	20
	cts must be level 2 or higher (an exception dents completing Mathematics for Engineers bject)	
	Credit Points	40
Spring session	I Contraction of the second	
ENGR 4026	Final Year Project 2 (UG Engineering)	10
ENGR 4011	Sustainability and Risk Engineering	10
Major Alternate	e Subject	10
Select one elec	otive	10
	cts must be level 2 or higher (an exception	
	dents completing Mathematics for Engineers	
Preliminary sul		
	Credit Points	40
	Total Credit Points	320
Alternate Sub		320
Alternate Sub		320 Credit
	jects	
	jects	Credit
Subject	jects Title	Credit Points
Subject ENGR 3001	jects Title Advanced Engineering Topic 1	Credit Points 10
Subject ENGR 3001 ENGR 4001	jects Title Advanced Engineering Topic 1 Advanced Engineering Topic 2	Credit Points 10 10
Subject ENGR 3001 ENGR 4001 CIVL 4001	jects Title Advanced Engineering Topic 1 Advanced Engineering Topic 2 Applied Mechanics	Credit Points 10 10 10
Subject ENGR 3001 ENGR 4001 CIVL 4001 CIVL 3022	jects Title Advanced Engineering Topic 1 Advanced Engineering Topic 2 Applied Mechanics Bridge Embankment Design	Credit Points 10 10 10 10
Subject ENGR 3001 ENGR 4001 CIVL 4001 CIVL 3022 CIVL 3021	jects Title Advanced Engineering Topic 1 Advanced Engineering Topic 2 Applied Mechanics Bridge Embankment Design Bridge Engineering Design	Credit Points 10 10 10 10 10
Subject ENGR 3001 ENGR 4001 CIVL 4001 CIVL 3022 CIVL 3021 CIVL 4002	jects Title Advanced Engineering Topic 1 Advanced Engineering Topic 2 Applied Mechanics Bridge Embankment Design Bridge Engineering Design Composite Structures	Credit Points 10 10 10 10 10 10

Equivalent Subjects

EART 3005

CIVL 3020

CIVL 4009

CIVL 4012

CIVL 2018

ENGB 3017

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

Statistical Hydrology

Timber Structures (UG)

Sustainable Waste Engineering

Water Resource Engineering

Water Supply Systems Design

Mid-year intake

Course	Title	Credit Points
Year 1		
Spring session		
Select one of the foll	owing:	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 fo	ollowing:	10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
MECH 2003	Mechanics of Materials	10
ENGR 1011	Engineering Physics	10
ELEC 1006	Engineering Computing	10
	Credit Points	40
Year 2		
Spring session		
CIVL 2007	Introduction to Structural Engineering	10
CIVL 2002	Environmental Engineering	10
ENGR 2016	Pavement Materials and Design	10
Select one elective		10
	must be level 2 or higher (an exception ts completing Mathematics for Engineers t)	
	Credit Points	40
Autumn session		
CIVL 3014	Structural Analysis	10
CIVL 2003	Fluid Mechanics	10
CIVL 2012	Soil Mechanics	10
select one elective	(level 2 or higher)	10
	Credit Points	40
Year 3		
Spring session		
CIVL 3012	Steel Structures	10
ENGR 3020	Numerical Methods in Engineering	10
CIVL 3011	Hydraulics	10
One Alternate Subj	ect	10
	Credit Points	40
Autumn session		
CIVL 1001	Surveying for Engineers	10
CIVL 4017	Surface Water Hydrology	10
CIVL 3002	Concrete Structures (UG)	10
One Alternate Subj	ect	10
Industrial Experien	ice	
ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	40
Year 4		
Spring session		
ENGR 4025	Final Year Project 1 (UG Engineering)	10
ENGR 4011	Sustainability and Risk Engineering	10
CIVL 3007	Engineering Geomechanics	10
Alternate Subject		10
	Credit Points	40
Autumn session		
ENGR 4026	Final Year Project 2 (UG Engineering)	10
Major Alternate Su	bject	10
Select two elective	2S	20
*Elective subjects	must be level 2 or higher (an exception	

*Elective subjects must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject) Credit Points

Total Credit Points 320

40

Alternate Subje	cts	
Subject	Title	Credit Points
ENGR 3001	Advanced Engineering Topic 1	10
ENGR 4001	Advanced Engineering Topic 2	10
CIVL 4001	Applied Mechanics	10
CIVL 3022	Bridge Embankment Design	10
CIVL 3021	Bridge Engineering Design	10
CIVL 4002	Composite Structures	10
CIVL 3010	Highway Infrastructure	10
CIVL 3018	Hydrogeology	10
CIVL 4008	Pile Foundations	10
EART 3005	Statistical Hydrology	10
CIVL 3020	Sustainable Waste Engineering	10
CIVL 4009	Timber Structures (UG)	10
CIVL 4012	Water Resource Engineering	10
CIVL 2018	Water Supply Systems Design	10

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 (Honours)/ Bachelor of Business

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

Start-year intake

Course	Title	Credit
Year 1		Points
Autumn session		
FNGB 1011	Engineering Physics	10
MATH 1016	Mathematics for Engineers 1	10
Business Core Subje	5	10
Business Core Subje		10
	Credit Points	40
Spring session		10
MATH 1019	Mathematics for Engineers 2	10
PROC 1008	Introduction to Materials Engineering	10
Business Core Subje	5 5	10
Business Core Subje		10
	Credit Points	40
Year 2		
Autumn session		
ELEC 1006	Engineering Computing	10
Business Profession	al Subject 1	10
Business Professional Subject 2		10
Business Major Subj	ect 1	10
	Credit Points	40
Spring session		
ELEC 1003	Electrical Fundamentals	10
ENGR 1018	Fundamentals of Mechanics	10
Business Major Subj	ect 2	10

Business Major Subject 3		10
	Credit Points	40
Year 3		
Autumn session		
CIVL 1001	Surveying for Engineers	10
MECH 2003	Mechanics of Materials	10
CIVL 2003	Fluid Mechanics	10
CIVL 2012	Soil Mechanics	10
	Credit Points	40
Spring session		
ENGR 2016	Pavement Materials and Design	10
CIVL 2007	Introduction to Structural Engineering	10
CIVL 2002	Environmental Engineering	10
CIVL 3011	Hydraulics	10
	Credit Points	40
Year 4		
Autumn session		
CIVL 3014	Structural Analysis	10
CIVL 3002	Concrete Structures (UG)	10
CIVL 4017	Surface Water Hydrology	10
Business Major S	subject 4	10
	Credit Points	40
Spring session		
CIVL 3012	Steel Structures	10
CIVL 3007	Engineering Geomechanics	10
Business Major S	ubject 5	10
Business Major S	ubject 6	10
Industrial Experie	nce	
ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	40
Year 5		
Autumn session		
Industrial Experie	nce	
ENGR 3017	Industrial Experience (Engineering)	0
ENGR 4025	Final Year Project 1 (UG Engineering)	10
Business Profess	ional Subject 3	10
Business Major S	ubject 7	10
Business Major S	ubject 8	10
	Credit Points	40
Spring session		
ENGR 4026	Final Year Project 2 (UG Engineering)	10
ENGR 4035	Smart and Liveable Cities	10
ENGR 3020	Numerical Methods in Engineering	10
Business Profess	ional 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
Year 1		Points
Spring session		
MATH 1016	Mathematics for Engineers 1	10
PROC 1008	Introduction to Materials Engineering	10
Business Core Subj		10
Business Core Subje		10
	Credit Points	40
Autumn session	orear romas	40
MATH 1019	Mathematics for Engineers 2	10
ENGR 1011	Engineering Physics	10
Business Core Subj		10
Business Core Subj		10
	Credit Points	40
Year 2		
Spring session		
ENGR 1018	Fundamentals of Mechanics	10
Business Profession	nal Subject 1	10
Business Professior		10
Business Major Sub	•	10
	Credit Points	40
Autumn session		
MECH 2003	Mechanics of Materials	10
CIVL 2003	Fluid Mechanics	10
Business Major Sub	ject 2	10
Business Major Sub	-	10
	Credit Points	40
Year 3		
Spring session		
ENGR 2016	Pavement Materials and Design	10
CIVL 2007	Introduction to Structural Engineering	10
CIVL 2002	Environmental Engineering	10
CIVL 3011	Hydraulics	10
	Credit Points	40
Autumn session		
CIVL 3014	Structural Analysis	10
CIVL 3002	Concrete Structures (UG)	10
CIVL 4017	Surface Water Hydrology	10
CIVL 2012	Soil Mechanics	10
	Credit Points	40
Year 4		
Spring session		
CIVL 3012	Steel Structures	10
CIVL 3007	Engineering Geomechanics	10
Business Major Sub	ject 4	10
ELEC 1003	Electrical Fundamentals	10
	Credit Points	40
Autumn session		
CIVL 1001	Surveying for Engineers	10
Business Major Sub	ject 5	10
Business Major Sub	ject 6	10
ELEC 1006	Engineering Computing	10
Industrial Experience	e	

ENGR 3017	Industrial Experience (Engineering)	0
	Credit Points	40
Year 5		
Spring session		
ENGR 4025	Final Year Project 1 (UG Engineering)	10
ENGR 4011	Sustainability and Risk Engineering	10
ENGR 3020	Numerical Methods in Engineering	10
Business Professio	onal Subject 3	10
	Credit Points	40
Autumn session		
ENGR 4026	Final Year Project 2 (UG Engineering)	10
Business Professional Subject 4		10
Business Major Subject 7		10
Business 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

Related Programs

Bachelor of Engineering Advanced (Honours) (3771) (https:// hbook.westernsydney.edu.au/archives/2022-2023/programs/bachelorengineering-advanced-honours/)

Bachelor of Engineering Science (3691) (https://

hbook.westernsydney.edu.au/archives/2022-2023/programs/bachelorengineering-science/)