

# 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

Campus	Mode	Advice	Credit Points
Parramatta Campus - Victoria Road	Internal	Program Advice (edbe@westernsydney.edu.au)	10
Parramatta City Campus-Macquarie Street	Internal	Program Advice (edbe@westernsydney.edu.au)	10
Penrith Campus	Internal	Program Advice (edbe@westernsydney.edu.au)	10
Sydney City Campus*	Internal	Peter Lendrum ( <a href="https://directory.westernsydney.edu.au/search/email/p.lendrum@city.westernsydney.edu.au">https://directory.westernsydney.edu.au/search/email/p.lendrum@city.westernsydney.edu.au</a> )	10

\* Curriculum delivered through an agreement with another party

## Recommended Sequence 2022-2023

If you commenced in 2024 or later please refer to the Structure 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 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
<b>Year 1</b>		
<b>Autumn session</b>		
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
<b>Credit Points</b>		<b>40</b>
<b>Spring session</b>		
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		
<b>Credit Points</b>		<b>40</b>
<b>Year 2</b>		
<b>Autumn session</b>		
CIVL 1001	Surveying for Engineers	10
MECH 2003	Mechanics of Materials	10
CIVL 2003	Fluid Mechanics	10
CIVL 2012	Soil Mechanics	10
<b>Credit Points</b>		<b>40</b>
<b>Spring session</b>		
ENGR 2016	Pavement Materials and Design	10
CIVL 2007	Introduction to Structural Engineering	10
CIVL 2002	Environmental Engineering	10
CIVL 3011	Hydraulics	10
Students may transfer to 3740 Bachelor of Engineering (Honours) or 3691 Bachelor of Engineering Science at the end of Year 2 of study.		
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.		
<b>Credit Points</b>		<b>40</b>
<b>Year 3</b>		
<b>Autumn session</b>		
CIVL 3014	Structural Analysis	10
CIVL 4017	Surface Water Hydrology	10
CIVL 3002	Concrete Structures (UG)	10
One Alternate subject		10
<b>Credit Points</b>		<b>40</b>
<b>Spring session</b>		
CIVL 3012	Steel Structures	10
CIVL 3007	Engineering Geomechanics	10
ENGR 3020	Numerical Methods in Engineering	10
One Alternate subject		10
<b>Industrial Experience</b>		
ENGR 3017	Industrial Experience (Engineering)	0
<b>Credit Points</b>		<b>40</b>
<b>Year 4</b>		
<b>Autumn session</b>		
ENGR 4037	Advanced Engineering Thesis 1: Preliminary Investigations	10

One Alternate Subject	10	MECH 4005 Advanced Engineering Thesis 1: Preliminary Investigations, replaced by ENGR 4037 Advanced Engineering Thesis 1: Preliminary Investigations
Select two electives	20	
• Elective subjects must be Level 2 or higher		

<b>Spring session</b>	<b>Credit Points</b>	<b>40</b>	MECH 4006 Advanced Engineering Thesis 2: Detailed Investigations, replaced by ENGR 4036 Advanced Engineering Thesis 2: Detailed Investigations
ENGR 4035	Smart and Liveable Cities	10	
ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10	The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.
One Alternate subject	10		ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering
Select one elective	10		
• Elective subjects must be Level 2 or higher			

<b>Credit Points</b>	<b>40</b>	
<b>Total Credit Points</b>	<b>320</b>	

### Alternate Subjects

Subject	Title	Credit Points	
ENGR 3001	Advanced Engineering Topic 1	10	
ENGR 4001	Advanced Engineering Topic 2	10	
CIVL 4001	Applied Mechanics	10	CIVL 3020 Sustainable Waste Engineering, replaced by CIVL 4021 Sustainable Waste Engineering
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 4021	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	Credit Points	
BLDG 4006	Modern Construction Enterprises	10	
BLDG 4007	Modern Construction Projects	10	
The following subject is an optional elective subject 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	10	

### Minors

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

Geotechnical, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/geotechnical-minor/>)  
 Structures, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/structures-minor/>)  
 Water and Environment, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/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.

### 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
<b>Year 1</b>		
<b>Spring session</b>		
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
	<b>Credit Points</b>	<b>40</b>
<b>Autumn session</b>		
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
	<b>Credit Points</b>	<b>40</b>

Subject	Title	Credit Points	
Year 2			
<b>Spring session</b>			
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 must be Level 2 or higher			

	Credit Points	
<b>Autumn session</b>		
CIVL 3014	Structural Analysis	10
CIVL 2003	Fluid Mechanics	10
CIVL 2012	Soil Mechanics	10
select one elective (level 2 or higher)		10

Students may transfer to 3740 Bachelor of Engineering (Honours) or 3691 Bachelor of Engineering Science at the end of Year 2 of study.

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	
--	---------------	--

**Year 3****Spring session**

CIVL 3012	Steel Structures	10
ENGR 3020	Numerical Methods in Engineering	10
CIVL 3011	Hydraulics	10
One Alternate subject		10

<b>Credit Points</b>	<b>40</b>
----------------------	-----------

**Autumn session**

CIVL 1001	Surveying for Engineers	10
CIVL 4017	Surface Water Hydrology	10
CIVL 3002	Concrete Structures (UG)	10
One Alternate subject		10

<b>Credit Points</b>	<b>40</b>
----------------------	-----------

**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		10

<b>Credit Points</b>	<b>40</b>
----------------------	-----------

**Autumn session**

ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10
One Alternate subject		10
Select two electives		20

- Elective unit must be Level 2 or higher

<b>Credit Points</b>	<b>40</b>
----------------------	-----------

<b>Total Credit Points</b>	<b>320</b>
----------------------------	------------

**Alternate Subjects**

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 4021	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	Credit Points
BLDG 4006	Modern Construction Enterprises	10
BLDG 4007	Modern Construction Projects	10

The following subject is an optional elective subject 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	10
-----------	---------------------------	----

**Minors**

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

Geotechnical, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/geotechnical-minor/>)  
 Structures, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/majors-minors/structures-minor/>)  
 Water and Environment, Minor (<https://hbook.westernsydney.edu.au/archives/2023-2024/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

**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 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		
<b>Year 1</b>				
<b>Autumn session</b>				
ELEC 1006	Engineering Computing	10	ENGR 2033	Industrial Experience (Engineering Technologist)
ENGR 1011	Engineering Physics	10		<b>Credit Points</b>
ENGR 1024	Introduction to Engineering Practice	10		<b>Total Credit Points</b>
Select one of the following:		10		<b>240</b>
MATH 1021	Mathematics for Engineers Preliminary			
MATH 1016	Mathematics for Engineers 1			
	<b>Credit Points</b>	<b>40</b>		
<b>Spring session</b>				
ENGR 1018	Fundamentals of Mechanics	10		
PROC 1008	Introduction to Materials Engineering	10		
Select one elective		10		
• Elective must be Level 2 or higher				
Select one of the following:		10		
MATH 1016	Mathematics for Engineers 1			
MATH 1019	Mathematics for Engineers 2			
	<b>Credit Points</b>	<b>40</b>		
<b>Year 2</b>				
<b>Autumn session</b>				
CIVL 1001	Surveying for Engineers	10	MATH 1021	Mathematics for Engineers Preliminary
MECH 2003	Mechanics of Materials	10	MATH 1016	Mathematics for Engineers 1
CIVL 2003	Fluid Mechanics	10	ENGR 1018	Fundamentals of Mechanics
ENGR 3029	Specialisation Workshop 1	10	PROC 1008	Introduction to Materials Engineering
	<b>Credit Points</b>	<b>40</b>	ENGR 1024	Introduction to Engineering Practice
<b>Spring session</b>				<b>Credit Points</b>
ENGR 2016	Pavement Materials and Design	10		<b>40</b>
CIVL 2007	Introduction to Structural Engineering	10		
CIVL 3011	Hydraulics	10		
ENGR 3030	Specialisation Workshop 2	10		
	<b>Credit Points</b>	<b>40</b>		
<b>Year 3</b>				
<b>Autumn session</b>				
CIVL 3014	Structural Analysis	10		<b>Credit Points</b>
CIVL 3002	Concrete Structures (UG)	10		<b>40</b>
ENGR 3013	Engineering Science Project 1	10		
CIVL 2012	Soil Mechanics	10		
	<b>Credit Points</b>	<b>40</b>		
<b>Spring session</b>				
CIVL 3012	Steel Structures	10	<b>Year 2</b>	
ENGR 3014	Engineering Science Project 2	10	<b>Autumn session</b>	
CIVL 2002	Environmental Engineering	10	CIVL 3014	Structural Analysis
Select one elective		10	ELEC 1006	Engineering Computing
• Elective must be Level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)			CIVL 2003	Fluid Mechanics
			ENGR 3030	Specialisation Workshop 2
				<b>Credit Points</b>
<b>Industrial Experience</b>				<b>40</b>

## 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
<b>Year 1</b>		
<b>Spring session</b>		
Select one of the following:		10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
	<b>Credit Points</b>	<b>40</b>
<b>Year 2</b>		
<b>Autumn session</b>		
Select one of the following:		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 must be Level 2 or higher		
	<b>Credit Points</b>	<b>40</b>
<b>Year 3</b>		
<b>Autumn session</b>		
CIVL 3014	Structural Analysis	10
CIVL 3002	Concrete Structures (UG)	10
ENGR 3013	Engineering Science Project 1	10
CIVL 2012	Soil Mechanics	10
	<b>Credit Points</b>	<b>40</b>
<b>Spring session</b>		
CIVL 3012	Steel Structures	10
ENGR 3014	Engineering Science Project 2	10
CIVL 2002	Environmental Engineering	10
Select one elective		10
• Elective must be Level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)		
	<b>Credit Points</b>	<b>40</b>
<b>Industrial Experience</b>		

Select one elective	10	MECH 2003	Mechanics of Materials	10
*Elective subjects must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)		CIVL 2003	Fluid Mechanics	10
		CIVL 2012	Soil Mechanics	10
<b>Credit Points</b>				<b>40</b>
<b>Autumn session</b>				
CIVL 1001	Surveying for Engineers	10	ENGR 2016	Pavement Materials and Design
CIVL 2012	Soil Mechanics	10	CIVL 2007	Introduction to Structural Engineering
CIVL 3002	Concrete Structures (UG)	10	CIVL 2002	Environmental Engineering
ENGR 3014	Engineering Science Project 2	10	CIVL 3011	Hydraulics
<b>Credit Points</b>				<b>40</b>
<b>Industrial Experience</b>				
ENGR 2033	Industrial Experience (Engineering Technologist)	0	CIVL 3014	Structural Analysis
<b>Credit Points</b>				<b>40</b>
<b>Total Credit Points</b>				<b>240</b>

### 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

## 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

Course	Title	Credit Points	Credit Points	Credit Points		
<b>Year 1</b>				<b>40</b>		
<b>Autumn session</b>						
ELEC 1006	Engineering Computing	10	ENGR 4026	Final Year Project 2 (UG Engineering)		
ENGR 1011	Engineering Physics	10	ENGR 4011	Sustainability and Risk Engineering		
ENGR 1024	Introduction to Engineering Practice	10	Major Alternate Subject			
Select one of the following:		10	Select one elective			
MATH 1021	Mathematics for Engineers Preliminary		*Elective subjects must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)			
MATH 1016	Mathematics for Engineers 1					
<b>Credit Points</b>				<b>40</b>		
				<b>Total Credit Points</b>		
				<b>320</b>		
<b>Spring session</b>						
Select one of the following:		10	<b>Alternate Subjects</b>			
MATH 1019	Mathematics for Engineers 2		Subject	Title	Credit Points	
MATH 1016	Mathematics for Engineers 1		ENGR 3001	Advanced Engineering Topic 1	10	
ENGR 1018	Fundamentals of Mechanics	10	ENGR 4001	Advanced Engineering Topic 2	10	
PROC 1008	Introduction to Materials Engineering	10	CIVL 4001	Applied Mechanics	10	
Select one elective		10	CIVL 3022	Bridge Embankment Design	10	
• Elective unit must be Level 1 or higher			CIVL 3021	Bridge Engineering Design	10	
<b>Credit Points</b>				CIVL 4002	Composite Structures	10
				CIVL 3010	Highway Infrastructure	10
				CIVL 3018	Hydrogeology	10
				CIVL 4008	Pile Foundations	10
<b>Year 2</b>						
<b>Autumn session</b>						
CIVL 1001	Surveying for Engineers	10				

EART 3005	Statistical Hydrology	10	ENGR 3020	Numerical Methods in Engineering	10
CIVL 4021	Sustainable Waste Engineering	10	CIVL 3011	Hydraulics	10
CIVL 4009	Timber Structures (UG)	10	One Alternate Subject		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

### 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	Credit Points	40
<b>Year 1</b>				
<b>Spring session</b>				
Select one of the following:				
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	
<b>Autumn session</b>				
Select one of the following:				
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	
<b>Year 2</b>				
<b>Spring session</b>				
CIVL 2007	Introduction to Structural Engineering	10		
CIVL 2002	Environmental Engineering	10		
ENGR 2016	Pavement Materials and Design	10		
Select one elective		10		
*Elective subjects must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)				
		Credit Points	40	
<b>Autumn session</b>				
Select one of the following:				
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	
<b>Year 3</b>				
<b>Spring session</b>				
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	

Subject	Title	Credit Points
<b>Autumn session</b>		
Select one of the following:		
*Elective subjects must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)		
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 4021	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

### Replaced Subjects

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

CIVL 3012	Steel Structures	10
-----------	------------------	----

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 sequences below.

### Start-year intake

Course	Title	Credit Points	Credit Points	40		
<b>Year 1</b>						
<b>Autumn session</b>						
ENGR 1011	Engineering Physics	10	ENGR 3017	Industrial Experience (Engineering)		
MATH 1016	Mathematics for Engineers 1	10		0		
Business Core Subject 1		10	<b>Credit Points</b>			
Business Core Subject 2		10	<b>Credit Points</b>			
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>			
<b>Spring session</b>						
MATH 1019	Mathematics for Engineers 2	10	ENGR 4026	Final Year Project 2 (UG Engineering)		
PROC 1008	Introduction to Materials Engineering	10	ENGR 4035	Smart and Liveable Cities		
Business Core Subject 3		10	ENGR 3020	Numerical Methods in Engineering		
Business Core Subject 4		10	Business Professional Subject 4	10		
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>			
<b>Year 2</b>						
<b>Autumn session</b>						
ELEC 1006	Engineering Computing	10	<b>Credit Points</b>			
Business Professional Subject 1		10	<b>Total Credit Points</b>			
Business Professional Subject 2		10	<b>400</b>			
Business Major Subject 1		10	<b>Equivalent Subjects</b>			
<b>Credit Points</b>		<b>40</b>	The subjects listed below count towards completion of this program for students who passed these subjects in Autumn 2022 or earlier.			
<b>Spring session</b>						
ELEC 1003	Electrical Fundamentals	10	ENGR 1008 - Engineering Materials, replaced by PROC 1008 - Introduction to Materials Engineering			
ENGR 1018	Fundamentals of Mechanics	10	<b>Mid-year intake</b>			
Business Major Subject 2		10	<b>Course</b>			
Business Major Subject 3		10	<b>Title</b>			
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>			
<b>Year 3</b>						
<b>Autumn session</b>						
CIVL 1001	Surveying for Engineers	10	MATH 1016	Mathematics for Engineers 1		
MECH 2003	Mechanics of Materials	10	PROC 1008	Introduction to Materials Engineering		
CIVL 2003	Fluid Mechanics	10	Business Core Subject 1	10		
CIVL 2012	Soil Mechanics	10	Business Core Subject 2	10		
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>			
<b>Spring session</b>						
ENGR 2016	Pavement Materials and Design	10	MATH 1019	Mathematics for Engineers 2		
CIVL 2007	Introduction to Structural Engineering	10	ENGR 1011	Engineering Physics		
CIVL 2002	Environmental Engineering	10	Business Core Subject 3	10		
CIVL 3011	Hydraulics	10	Business Core Subject 4	10		
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>			
<b>Year 4</b>						
<b>Autumn session</b>						
CIVL 3014	Structural Analysis	10	ENGR 1018	Fundamentals of Mechanics		
CIVL 3002	Concrete Structures (UG)	10	Business Professional Subject 1	10		
CIVL 4017	Surface Water Hydrology	10	Business Professional Subject 2	10		
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>			

**Autumn session**

MECH 2003	Mechanics of Materials	10
CIVL 2003	Fluid Mechanics	10
Business Major Subject 2		10
Business Major Subject 3		10
	<b>Credit Points</b>	<b>40</b>

**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
	<b>Credit Points</b>	<b>40</b>

**Autumn session**

CIVL 3014	Structural Analysis	10
CIVL 3002	Concrete Structures (UG)	10
CIVL 4017	Surface Water Hydrology	10
CIVL 2012	Soil Mechanics	10
	<b>Credit Points</b>	<b>40</b>

**Year 4****Spring session**

CIVL 3012	Steel Structures	10
CIVL 3007	Engineering Geomechanics	10
Business Major Subject 4		10
ELEC 1003	Electrical Fundamentals	10
	<b>Credit Points</b>	<b>40</b>

**Autumn session**

CIVL 1001	Surveying for Engineers	10
Business Major Subject 5		10
Business Major Subject 6		10
ELEC 1006	Engineering Computing	10
	<b>Credit Points</b>	<b>40</b>

**Industrial Experience**

ENGR 3017	Industrial Experience (Engineering)	0
	<b>Credit Points</b>	<b>40</b>

**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 Professional Subject 3		10
	<b>Credit Points</b>	<b>40</b>

**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
	<b>Credit Points</b>	<b>40</b>

**Total Credit Points****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 Advanced (Honours) (3771)**

**This Major will be offered at Engineering Innovation Hub which is part of Parramatta City campus.**

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

**\*\* Electives** must be Level 2 or higher

**Start year intake**

Course	Title	Credit Points
<b>Year 1</b>		
<b>Autumn session</b>		
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
<b>Credit Points</b>		<b>40</b>
<b>Spring session</b>		
MATH 1035	Mathematics for Engineers 2 (Advanced)	10
ENGR 1018	Fundamentals of Mechanics	10
ELEC 1003	Electrical Fundamentals	10
ENGR 2023	Advanced Engineering Physics 2	10
<b>Credit Points</b>		<b>40</b>

**Year 2**

<b>Autumn session</b>		
CIVL 1001	Surveying for Engineers	10
MECH 2003	Mechanics of Materials	10
CIVL 2003	Fluid Mechanics	10
CIVL 2012	Soil Mechanics	10
<b>Credit Points</b>		<b>40</b>

Spring session		
CIVL 2007	Introduction to Structural Engineering	10
CIVL 2002	Environmental Engineering	10
CIVL 3011	Hydraulics	10
PROC 1008	Introduction to Materials Engineering	10

Students may transfer to 3740 Bachelor of Engineering (Honours) or 3691 Bachelor of Engineering Science at the end of Year 2 of study.

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.

**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

**Credit Points**

**40**

Year 3			Year 2		
<b>Autumn session</b>			<b>Spring session</b>		
CIVL 3014	Structural Analysis	10	CIVL 2007	Introduction to Structural Engineering	10
CIVL 4017	Surface Water Hydrology	10	CIVL 2002	Environmental Engineering	10
CIVL 3002	Concrete Structures (UG)	10	PROC 1008	Introduction to Materials Engineering	10
Select one elective** or Minor subject		10	Select one elective** or Minor subject		10
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>		<b>40</b>
<b>Spring session</b>			<b>Autumn session</b>		
CIVL 3012	Steel Structures	10	CIVL 3014	Structural Analysis	10
CIVL 3007	Engineering Geomechanics	10	CIVL 2003	Fluid Mechanics	10
ENGR 3020	Numerical Methods in Engineering	10	CIVL 2012	Soil Mechanics	10
ENGR 2016	Pavement Materials and Design	10	ENGR 1024	Introduction to Engineering Practice	10
<b>Industrial Experience</b>			Students may transfer to 3740 Bachelor of Engineering (Honours) or 3691 Bachelor of Engineering Science at the end of Year 2 of study.		
ENGR 3017	Industrial Experience (Engineering)	0	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.		
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>		<b>40</b>
Year 4					
<b>Autumn session</b>					
ENGR 4043	Advanced Engineering Thesis 1: Preliminary Investigations	20			
Select one elective** or Minor subject		10			
Select one elective** or Minor subject		10			
<b>Credit Points</b>		<b>40</b>	<b>Credit Points</b>		<b>40</b>
<b>Spring session</b>			<b>Year 3</b>		
ENGR 4035	Smart and Liveable Cities	10	CIVL 3012	Steel Structures	10
ENGR 4044	Advanced Engineering Thesis 2: Detailed Investigations	20	ENGR 3020	Numerical Methods in Engineering	10
Select one elective** or Minor subject		10	CIVL 3011	Hydraulics	10
<b>Credit Points</b>		<b>40</b>	ENGR 2016	Pavement Materials and Design	10
<b>Total Credit Points</b>		<b>320</b>	<b>Credit Points</b>		<b>40</b>
Subject	Title	Credit Points			
<b>Optional Electives</b>					
BLDG 4006	Modern Construction Enterprises	10			
BLDG 4007	Modern Construction Projects	10			
The following subject is an optional elective subject 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	10			
<b>Mid-year intake</b>			<b>Credit Points</b>		<b>40</b>
Course	Title	Credit Points			
<b>Year 1</b>			<b>Autumn session</b>		
<b>Spring session</b>			ENGR 4044	Advanced Engineering Thesis 2: Detailed Investigations	20
MATH 1034	Mathematics for Engineers 1 (Advanced)	10	Select one elective** or Minor subject		10
ENGR 1018	Fundamentals of Mechanics	10	Select one elective** or Minor subject		10
ELEC 1003	Electrical Fundamentals	10	<b>Credit Points</b>		<b>40</b>
ENGR 2023	Advanced Engineering Physics 2	10	<b>Total Credit Points</b>		<b>320</b>
<b>Credit Points</b>		<b>40</b>	<b>Subject</b>		
<b>Autumn session</b>			<b>Title</b>		
MATH 1035	Mathematics for Engineers 2 (Advanced)	10	<b>Credit Points</b>		
MECH 2003	Mechanics of Materials	10	BLDG 4006	Modern Construction Enterprises	10
ENGR 1047	Advanced Engineering Physics 1	10	BLDG 4007	Modern Construction Projects	10
ELEC 1006	Engineering Computing	10	The following subject is an optional elective subject offered to students who are engaged in a School approved project.		
<b>Credit Points</b>		<b>40</b>			

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	10
-----------	---------------------------	----

## Bachelor of Engineering (Honours) (3740)

This Major will be offered at Engineering Innovation Hub which is part of Parramatta City campus.

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

**\*\* 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

ELEC 1006	Engineering Computing	10
ENGR 1011	Engineering Physics	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
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

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
Select one elective** or Minor subject		10

##### Credit Points

40

##### Spring session

CIVL 3012	Steel Structures	10
-----------	------------------	----

CIVL 3007	Engineering Geomechanics	10
ENGR 3020	Numerical Methods in Engineering	10
Select one elective** or Minor subject		10
Industrial Experience		
ENGR 3017 Industrial Experience (Engineering)		0
<b>Credit Points</b>		<b>40</b>

#### Year 4

##### Autumn session

ENGR 4041	Final Year Project 1 (UG Engineering)	20
BLDG 4008	Digital Construction	10
Select one elective** or Minor subject		10
<b>Credit Points</b>		<b>40</b>

##### Spring session

ENGR 4042	Final Year Project 2 (UG Engineering)	20
ENGR 4011	Sustainability and Risk Engineering	10
Select one elective** or Minor subject		10
<b>Credit Points</b>		<b>40</b>

#### Mid-year intake

Course	Title	Credit Points
ENGR 1018	Fundamentals of Mechanics	10
PROC 1008	Introduction to Materials Engineering	10
ENGR 1024	Introduction to Engineering Practice	10
Select one of the following		10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	

##### Credit Points

40

##### Autumn session

MECH 2003	Mechanics of Materials	10
ENGR 1011	Engineering Physics	10
ELEC 1006	Engineering Computing	10
Select one of the following		10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	

##### Credit Points

40

#### Year 2

##### Spring session

CIVL 2007	Introduction to Structural Engineering	10
CIVL 2002	Environmental Engineering	10
ENGR 2016	Pavement Materials and Design	10
ELEC 1003	Electrical Fundamentals	10

##### Credit Points

40

##### Autumn session

CIVL 3014	Structural Analysis	10
CIVL 2003	Fluid Mechanics	10
CIVL 2012	Soil Mechanics	10
CIVL 1001	Surveying for Engineers	10
<b>Credit Points</b>		<b>40</b>

##### Credit Points

40

#### Year 3

##### Spring session

CIVL 3012	Steel Structures	10
ENGR 3020	Numerical Methods in Engineering	10

CIVL 3011	Hydraulics	10	ENGR 3029	Specialisation Workshop 1	10
CIVL 3007	Engineering Geomechanics	10		<b>Credit Points</b>	<b>40</b>
	<b>Credit Points</b>	<b>40</b>	<b>Spring session</b>		
<b>Autumn session</b>			ENGR 2016	Pavement Materials and Design	10
CIVL 4017	Surface Water Hydrology	10	CIVL 2007	Introduction to Structural Engineering	10
CIVL 3002	Concrete Structures (UG)	10	CIVL 3011	Hydraulics	10
Select one elective** or Minor subject		10	ENGR 3030	Specialisation Workshop 2	10
Select one elective** or Minor subject		10		<b>Credit Points</b>	<b>40</b>
<b>Industrial Experience</b>			<b>Year 3</b>		
ENGR 3017	Industrial Experience (Engineering)	0	<b>Autumn session</b>		
	<b>Credit Points</b>	<b>40</b>	CIVL 3014	Structural Analysis	10
<b>Year 4</b>			CIVL 3002	Concrete Structures (UG)	10
<b>Spring session</b>			ENGR 3013	Engineering Science Project 1	10
ENGR 4041	Final Year Project 1 (UG Engineering)	20	CIVL 2012	Soil Mechanics	10
ENGR 4011	Sustainability and Risk Engineering	10		<b>Credit Points</b>	<b>40</b>
Select one elective** or Minor subject		10	<b>Spring session</b>		
	<b>Credit Points</b>	<b>40</b>	CIVL 3012	Steel Structures	10
<b>Autumn session</b>			ENGR 3014	Engineering Science Project 2	10
ENGR 4042	Final Year Project 2 (UG Engineering)	20	Select two electives (Level 2 or higher)		20
BLDG 4008	Digital Construction	10	*Elective must be Level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)		
Select one elective** or Minor subject		10	<b>Industrial Experience</b>		
	<b>Credit Points</b>	<b>40</b>	ENGR 2033	Industrial Experience (Engineering Technologist)	0
	<b>Total Credit Points</b>	<b>320</b>		<b>Credit Points</b>	<b>40</b>
				<b>Total Credit Points</b>	<b>240</b>

## 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.

### Start year intake

Course	Title	Credit Points	Subject	Title	Credit Points
<b>Year 1</b>			<b>Optional Elective</b>		
<b>Autumn session</b>			The following subject is an optional elective unit offered to students who are engaged in a School approved project.		
ELEC 1006	Engineering Computing	10	This subject can be taken during the third year of this program, however, permission is required to enrol in the subject.		
ENGR 1011	Engineering Physics	10	ENGR 3022	Special Technical Project	10
ENGR 1024	Introduction to Engineering Practice	10	<b>Mid-year intake</b>		
Select one of the following		10	<b>Course</b>	<b>Title</b>	<b>Credit Points</b>
MATH 1021	Mathematics for Engineers Preliminary		<b>Year 1</b>		
MATH 1016	Mathematics for Engineers 1		<b>Spring session</b>		
	<b>Credit Points</b>	<b>40</b>	ENGR 1018	Fundamentals of Mechanics	10
<b>Spring session</b>			PROC 1008	Introduction to Materials Engineering	10
ENGR 1018	Fundamentals of Mechanics	10	ELEC 1003	Electrical Fundamentals	10
PROC 1008	Introduction to Materials Engineering	10	Select one of the following		10
ELEC 1003	Electrical Fundamentals	10	MATH 1021	Mathematics for Engineers Preliminary	
Select one of the following		10	MATH 1016	Mathematics for Engineers 1	
MATH 1016	Mathematics for Engineers 1			<b>Credit Points</b>	<b>40</b>
MATH 1019	Mathematics for Engineers 2		<b>Autumn session</b>		
	<b>Credit Points</b>	<b>40</b>	MECH 2003	Mechanics of Materials	10
<b>Year 2</b>			ENGR 1011	Engineering Physics	10
<b>Autumn session</b>			ENGR 1024	Introduction to Engineering Practice	10
CIVL 1001	Surveying for Engineers	10	Select one of the following		10
MECH 2003	Mechanics of Materials	10	MATH 1016	Mathematics for Engineers 1	
CIVL 2003	Fluid Mechanics	10	MATH 1019	Mathematics for Engineers 2	
	<b>Credit Points</b>	<b>40</b>			

<b>Year 2</b>				
<b>Spring session</b>				
CIVL 2007	Introduction to Structural Engineering	10	ENGR 1024	Introduction to Engineering Practice
ENGR 2016	Pavement Materials and Design	10	Business Core Subject 1	10
ENGR 3029	Specialisation Workshop 1	10		<b>Credit Points</b>
Select one elective		10		<b>40</b>
*Elective subjects must be level 2 or higher (an exception applies for students completing Mathematics for Engineers Preliminary subject)				
	<b>Credit Points</b>	<b>40</b>		
<b>Autumn session</b>				
CIVL 3014	Structural Analysis	10	MATH 1019	Mathematics for Engineers 2
ELEC 1006	Engineering Computing	10	PROC 1008	Introduction to Materials Engineering
CIVL 2003	Fluid Mechanics	10	Business Core Subject 2	10
ENGR 3030	Specialisation Workshop 2	10	Business Core Subject 3	10
	<b>Credit Points</b>	<b>40</b>		
<b>Year 3</b>				
<b>Spring session</b>				
CIVL 3012	Steel Structures	10	ELEC 1006	Engineering Computing
CIVL 3011	Hydraulics	10	Business Core Subject 4	10
ENGR 3013	Engineering Science Project 1	10	Business Professional Subject 1	10
Select one elective		10	Business Professional Subject 2	10
*Elective subjects must be level 2 or higher				<b>Credit Points</b>
	<b>Credit Points</b>	<b>40</b>		<b>40</b>
<b>Autumn session</b>				
CIVL 1001	Surveying for Engineers	10	ELEC 1003	Electrical Fundamentals
CIVL 2012	Soil Mechanics	10	ENGR 1018	Fundamentals of Mechanics
CIVL 3002	Concrete Structures (UG)	10	Business Major Subject 1	10
ENGR 3014	Engineering Science Project 2	10	Business Major Subject 2	10
	<b>Credit Points</b>	<b>40</b>		
<b>Industrial Experience</b>				
ENGR 2033	Industrial Experience (Engineering Technologist)	0		<b>Credit Points</b>
	<b>Credit Points</b>	<b>40</b>		<b>40</b>
	<b>Total Credit Points</b>	<b>240</b>		
<b>Subject</b>	<b>Title</b>	<b>Credit Points</b>		<b>Credit Points</b>
<b>Optional Elective</b>				<b>40</b>
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	10		

## 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 sequences below.

### Start year intake

Course	Title	Credit Points	Credit Points	Credit Points
<b>Year 1</b>				
<b>Autumn session</b>				
MATH 1016	Mathematics for Engineers 1	10	ENGR 4041	Final Year Project 1 (UG Engineering)
ENGR 1011	Engineering Physics	10	BLDG 4008	Digital Construction
				<b>Credit Points</b>
				<b>40</b>
<b>Year 2</b>				
<b>Autumn session</b>				
CIVL 3014	Structural Analysis	10		
CIVL 3002	Concrete Structures (UG)	10		
CIVL 4017	Surface Water Hydrology	10		
				<b>Credit Points</b>
				<b>40</b>
<b>Year 3</b>				
<b>Autumn session</b>				
CIVL 3012	Steel Structures	10		
CIVL 3007	Engineering Geomechanics	10		
ENGR 3020	Numerical Methods in Engineering	10		
				<b>Credit Points</b>
				<b>40</b>
<b>Year 4</b>				
<b>Autumn session</b>				
CIVL 3014	Structural Analysis	10		
CIVL 3002	Concrete Structures (UG)	10		
CIVL 4017	Surface Water Hydrology	10		
				<b>Credit Points</b>
				<b>40</b>
<b>Year 5</b>				
<b>Autumn session</b>				
ENGR 4041	Final Year Project 1 (UG Engineering)	20		
BLDG 4008	Digital Construction	10		
				<b>Credit Points</b>
				<b>40</b>

<b>Spring session</b>			<b>Year 4</b>		
ENGR 4042	Final Year Project 2 (UG Engineering)	20	CIVL 3012	Steel Structures	10
ENGR 4035	Smart and Liveable Cities	10	CIVL 3007	Engineering Geomechanics	10
Business Major Subject 6		10	ENGR 3020	Numerical Methods in Engineering	10
	<b>Credit Points</b>	<b>40</b>	Business Major Subject 3		10
<b>Year 6</b>				<b>Credit Points</b>	<b>40</b>
<b>Autumn session</b>					
Business Major Subject 7		10	ELEC 1006	Engineering Computing	10
Business Major Subject 8		10	CIVL 1001	Surveying for Engineers	10
Business Professional Subject 3		10	Business Professional Subject 2		10
Business Professional Subject 4		10	Business Major Subject 4		10
	<b>Credit Points</b>	<b>40</b>	<b>Industrial Experience</b>		
	<b>Total Credit Points</b>	<b>440</b>	ENGR 3017	Industrial Experience (Engineering)	0
<b>Mid-year intake</b>				<b>Credit Points</b>	<b>40</b>
Course	Title	Credit Points	<b>Year 5</b>		
<b>Year 1</b>			<b>Spring session</b>		
<b>Spring session</b>			ENGR 4041	Final Year Project 1 (UG Engineering)	20
MATH 1016	Mathematics for Engineers 1	10	ENGR 4035	Smart and Liveable Cities	10
ENGR 1024	Introduction to Engineering Practice	10	Business Major Subject 5		10
PROC 1008	Introduction to Materials Engineering	10		<b>Credit Points</b>	<b>40</b>
Business Core Subject 1		10	<b>Autumn session</b>		
	<b>Credit Points</b>	<b>40</b>	ENGR 4042	Final Year Project 2 (UG Engineering)	20
<b>Autumn session</b>			BLDG 4008	Digital Construction	10
MATH 1019	Mathematics for Engineers 2	10	Business Major Subject 6		10
ENGR 1011	Engineering Physics	10		<b>Credit Points</b>	<b>40</b>
Business Core Subject 2		10	<b>Year 6</b>		
Business Core Subject 3		10	<b>Spring session</b>		
	<b>Credit Points</b>	<b>40</b>	Business Professional Subject 3		10
<b>Year 2</b>			Business Professional Subject 4		10
<b>Spring session</b>			Business Major Subject 7		10
ELEC 1003	Electrical Fundamentals	10	Business Major Subject 8		10
ENGR 1018	Fundamentals of Mechanics	10		<b>Credit Points</b>	<b>40</b>
Business Core Subject 4		10		<b>Total Credit Points</b>	<b>440</b>
Business Major Subject 1		10	<b>Related Programs</b>		
	<b>Credit Points</b>	<b>40</b>	Bachelor of Engineering Advanced (Honours) (3771) ( <a href="https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-engineering-advanced-honours/">https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-engineering-advanced-honours/</a> )		
<b>Autumn session</b>			Bachelor of Engineering Science (3691) ( <a href="https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-engineering-science/">https://hbook.westernsydney.edu.au/archives/2023-2024/programs/bachelor-engineering-science/</a> )		
MECH 2003	Mechanics of Materials	10			
CIVL 2003	Fluid Mechanics	10			
Business Professional Subject 1		10			
Business Major Subject 2		10			
	<b>Credit Points</b>	<b>40</b>			
<b>Year 3</b>					
<b>Spring session</b>					
ENGR 2016	Pavement Materials and Design	10			
CIVL 2007	Introduction to Structural Engineering	10			
CIVL 2002	Environmental Engineering	10			
CIVL 3011	Hydraulics	10			
	<b>Credit Points</b>	<b>40</b>			
<b>Autumn session</b>					
CIVL 3014	Structural Analysis	10			
CIVL 3002	Concrete Structures (UG)	10			
CIVL 4017	Surface Water Hydrology	10			
CIVL 2012	Soil Mechanics	10			
	<b>Credit Points</b>	<b>40</b>			