## 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	C
Parramatta Campus - Victoria Road	Internal	Program Advice (edbe@westernsydney.e	c du <sub>C</sub>
Parramatta City Campus-Macquarie Street	Internal	Program Advice (edbe@westernsydney.e	S du
Penrith Campus	Internal	Program Advice (edbe@westernsydney.e	S du <sub>o</sub>
Sydney City Campus	Internal	Peter Lendrum (https:// directory.westernsydney search/email/ p.lendrum@city.western	

### **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
CIVL 3011	Hydraulics	10
	er to 3740 Bachelor of Engineering	. •
	achelor of Engineering Science at the end	
•	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 (Honour		
		40
Engineering (Honour	s) (3740) program.	40
Engineering (Honour du.au/ Year 3 rdnev.edu.au)	s) (3740) program.	<b>40</b>
Engineering (Honour du.au/ Year 3 rdney.edu.au) Autumn session	s) (3740) program.  Credit Points	
Engineering (Honour du.au/ Year 3 rdney.edu.au) Autumn session CIVL 3014	s) (3740) program.  Credit Points  Structural Analysis	10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017	Structural Analysis Surface Water Hydrology Concrete Structures (UG)	10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002	Structural Analysis Surface Water Hydrology Concrete Structures (UG)	10 10 10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002	Structural Analysis Surface Water Hydrology Concrete Structures (UG)	10 10 10 10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject	Structural Analysis Surface Water Hydrology Concrete Structures (UG)	10 10 10 10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject	Structural Analysis Surface Water Hydrology Concrete Structures (UG)	10 10 10 10 40
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012	Structural Analysis Surface Water Hydrology Concrete Structures (UG)  Credit Points  Steel Structures	10 10 10 10 40
Engineering (Honour du.au/ Year 3 day edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007	s) (3740) program.  Credit Points  Structural Analysis Surface Water Hydrology Concrete Structures (UG)  tt  Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering	10 10 10 10 40 10
Engineering (Honour du.au/ Year 3 dray.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020	Structural Analysis Structural Analysis Surface Water Hydrology Concrete Structures (UG) tt Credit Points Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt	10 10 10 10 40 10 10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject	Structural Analysis Structural Analysis Surface Water Hydrology Concrete Structures (UG) tt Credit Points Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt	10 10 10 10 40 10 10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience	Structural Analysis Surface Water Hydrology Concrete Structures (UG)  tt Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering	10 10 10 10 40 10 10 10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience	Structural Analysis Surface Water Hydrology Concrete Structures (UG)  tt Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt Industrial Experience (Engineering)	10 10 10 40 40 10 10 10
Engineering (Honour du.au/ Year 3 (dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017	Structural Analysis Surface Water Hydrology Concrete Structures (UG)  tt Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt Industrial Experience (Engineering)	10 10 10 40 40 10 10 10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017 Year 4	Structural Analysis Structural Analysis Surface Water Hydrology Concrete Structures (UG)  It Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering Industrial Experience (Engineering) Credit Points  Advanced Engineering Thesis 1:	10 10 10 40 40 10 10 10
Engineering (Honour du.au/ Year 3 (dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017 Year 4 Autumn session ENGR 4037	Structural Analysis Surface Water Hydrology Concrete Structures (UG) tt Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt Industrial Experience (Engineering) Credit Points  Advanced Engineering Thesis 1: Preliminary Investigations	10 10 10 40 40 10 10 10 10
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017 Year 4 Autumn session ENGR 4037 One Alternate Subject	Structural Analysis Surface Water Hydrology Concrete Structures (UG) tt Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt Industrial Experience (Engineering) Credit Points  Advanced Engineering Thesis 1: Preliminary Investigations	10 10 10 40 40 10 10 10 40
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017 Year 4 Autumn session ENGR 4037 One Alternate Subject Select two electives	Structural Analysis Surface Water Hydrology Concrete Structures (UG)  tt Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt Industrial Experience (Engineering) Credit Points  Advanced Engineering Thesis 1: Preliminary Investigations	10 10 10 40 40 10 10 10 40
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017 Year 4 Autumn session ENGR 4037 One Alternate Subject Select two electives	Structural Analysis Surface Water Hydrology Concrete Structures (UG) tt Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt Industrial Experience (Engineering) Credit Points  Advanced Engineering Thesis 1: Preliminary Investigations	10 10 10 40 40 10 10 10 40
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017 Year 4 Autumn session ENGR 4037 One Alternate Subject Select two electives	Structural Analysis Surface Water Hydrology Concrete Structures (UG)  tt Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering tt Industrial Experience (Engineering) Credit Points  Advanced Engineering Thesis 1: Preliminary Investigations	10 10 10 40 40 10 10 10 40
Engineering (Honour du.au/ Year 3 dney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017 Year 4 Autumn session ENGR 4037 One Alternate Subject Select two electives	Structural Analysis Surface Water Hydrology Concrete Structures (UG)  It Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering Industrial Experience (Engineering)  Credit Points  Advanced Engineering Thesis 1: Preliminary Investigations  It In the structures of the structure of t	10 10 10 40 10 10 10 10 40 40
Engineering (Honour du.au/ Year 3 Idney.edu.au) Autumn session CIVL 3014 CIVL 4017 CIVL 3002 One Alternate subject Spring session CIVL 3012 CIVL 3007 ENGR 3020 One Alternate subject Industrial Experience ENGR 3017 Year 4 Autumn session ENGR 4037 One Alternate Subject Select two electives Elective subjects	Structural Analysis Surface Water Hydrology Concrete Structures (UG)  It Credit Points  Steel Structures Engineering Geomechanics Numerical Methods in Engineering Industrial Experience (Engineering)  Credit Points  Advanced Engineering Thesis 1: Preliminary Investigations  It In the structures of the structure of t	10 10 10 40 10 10 10 10 40 40

ENGR 4036	Advanced Engineering Thesis 2: Detailed Investigations	10
One Alternate sul	oject	10
Select one elective	re	10
Flective subjective subjecti	ects 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 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		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/2021-2022/majors-minors/geotechnical-minor/) Structures, Minor (https://hbook.westernsydney.edu.au/ archives/2021-2022/majors-minors/structures-minor/) Water and Environment, Minor (https://hbook.westernsydney.edu.au/ archives/2021-2022/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-vear intake

Mid-year intak	e	
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 m	ust 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	(level 2 or higher)	10
•	sfer to 3740 Bachelor of Engineering Bachelor of Engineering Science at the end	
Students who fail to of completion of 10 of 200 Credit point	o maintain a minimum GPA of 5.0 at the end 50 Credit Points, and again at the completion s will be automatically transferred to the B. urs) (3740) program	

Spring	session

Spring session		
CIVL 3012	Steel Structures	10
ENGR 3020	Numerical Methods in Engineering	10
CIVL 3011	Hydraulics	10
One Alternate subject	t	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 subject		10
Industrial Experience		
ENGR 3017	Industrial Experience (Engineering)	0

**Credit Points** 

**Credit Points** 

#### 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	et	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 must	st be Level 2 or higher	
	Credit Points	40
	Total Credit Points	320

#### **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 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		redit oints
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 lken during the third year of this program, however Juired to enrol in the subject.	r,
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/2021-2022/majors-minors/geotechnical-minor/)
Structures, Minor (https://hbook.westernsydney.edu.au/archives/2021-2022/majors-minors/structures-minor/)
Water and Environment, Minor (https://hbook.westernsydney.edu.au/archives/2021-2022/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-vear intake

otait year intai		
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 fol	llowing:	10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
	Credit Points	40
Spring session		
ENGR 1018	Fundamentals of Mechanics	10
PROC 1008	Introduction to Materials Engineering	10
Select one elective		10
Select one of the following:		10
MATH 1016	Mathematics for Engineers 1	
MATH 1019	Mathematics for Engineers 2	
	Credit Points	40

Vear 2

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

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

#### Mid-year intake

Course	Title	Credit Points
Year 1		Tomics
Spring session		
Select one of the fo	ollowing:	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

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

#### **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
Year 1		· omico
Autumn session		
ELEC 1006	Engineering Computing	10
ENGR 1011	Engineering Physics	10
ENGR 1024	Introduction to Engineering Practice	10
Select one of the fo		10
MATH 1021	Mathematics for Engineers Preliminary	
MATH 1016	Mathematics for Engineers 1	
	Credit Points	40
Spring session		
Select one of the fo	ollowina:	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
	ust be Level 1 or higher	10
Liective unit in	ust be Level 1 of 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
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 subj		10
one / memate dabj	Credit Points	40
Year 4	o.cuit i onito	40
Autumn session		
ENGR 4025	Final Year Project 1 (UG Engineering)	10
One Alternate subj		10
one Alternate subj		10

Select two elective	s	20
•	must be level 2 or higher (an exception s completing Mathematics for Engineers t)	
	Credit Points	40
Spring session		
ENGR 4026	Final Year Project 2 (UG Engineering)	10
ENGR 4011	Sustainability and Risk Engineering	10
Major Alternate Su	bject	10
Select one elective		10
•	must be level 2 or higher (an exception is completing Mathematics for Engineers t)	
	Credit Points	40
	Total Credit Points	320

#### **Equivalent Subjects**

The subjects listed below count towards completion of this program for students who passed these subjects in 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	llowing:	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	llowing:	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
	nust be level 2 or higher (an exception completing Mathematics for Engineers	
	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 Subje	ct	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 Subje	ct	10
	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 Sub	ject	10
Select two electives		20
*Elective subjects m	oust be level 2 or higher (an exception	
• •	completing Mathematics for Engineers	
Preliminary subject)		
	Credit Points	40

#### **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 Points
Year 1		
Autumn session		
ENGR 1011	Engineering Physics	10
MATH 1016	Mathematics for Engineers 1	10
Business Core Subj	ect 1	10
Business Core Subj	ect 2	10
	Credit Points	40
Spring session		
MATH 1019	Mathematics for Engineers 2	10
PROC 1008	Introduction to Materials Engineering	10

<b>Business Core S</b>	ubject 4	
	Credit Points	40
Year 2		
Autumn session		
ELEC 1006	<b>Engineering Computing</b>	10
Business Profes	sional Subject 1	10
Business Profes	sional Subject 2	10
Business Major	Subject 1	1
	Credit Points	4
Spring session		
ELEC 1003	Electrical Fundamentals	1
ENGR 1018	Fundamentals of Mechanics	1
Business Major	-	1
Business Major		1
	Credit Points	4
Year 3		
Autumn session		
CIVL 1001	Surveying for Engineers	10
MECH 2003	Mechanics of Materials	1
CIVL 2003	Fluid Mechanics	1
CIVL 2012	Soil Mechanics	1
	Credit Points	4
Spring session		
ENGR 2016	Pavement Materials and Design	1
CIVL 2007	Introduction to Structural Engineering	1
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CIVL 2002	Environmental Engineering	
CIVL 3011  Year 4	Environmental Engineering Hydraulics Credit Points	1
CIVL 2002 CIVL 3011 Year 4 Autumn session CIVL 3014	Hydraulics  Credit Points  Structural Analysis	1 4
Year 4 Autumn session CIVL 3014 CIVL 3002	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG)	1 4 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017	Hydraulics  Credit Points  Structural Analysis  Concrete Structures (UG)  Surface Water Hydrology	1 4 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002	Hydraulics  Credit Points  Structural Analysis  Concrete Structures (UG)  Surface Water Hydrology  Subject 4	1 4 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 9	Hydraulics  Credit Points  Structural Analysis  Concrete Structures (UG)  Surface Water Hydrology	1 4 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major s	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4  Credit Points	1 4 1 1 1 1 4
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major S Spring session CIVL 3012	Hydraulics  Credit Points  Structural Analysis  Concrete Structures (UG)  Surface Water Hydrology  Subject 4  Credit Points  Steel Structures	1 1 1 1 4 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4 Credit Points  Steel Structures Engineering Geomechanics	1 4 1 1 1 4
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4 Credit Points  Steel Structures Engineering Geomechanics Subject 5	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4 Credit Points  Steel Structures Engineering Geomechanics Subject 5 Subject 6	1 4 1 1 1 4 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4 Credit Points  Steel Structures Engineering Geomechanics Subject 5	1 4 1 1 1 4 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4 Credit Points  Steel Structures Engineering Geomechanics Subject 5 Subject 6	1 4 1 1 1 4 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4 Credit Points  Steel Structures Engineering Geomechanics Subject 5 Subject 6 Credit Points	1 4 1 1 1 4 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4 Credit Points  Steel Structures Engineering Geomechanics Subject 5 Subject 6 Credit Points	1 4 1 1 1 4 1 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology  Subject 4  Credit Points  Steel Structures Engineering Geomechanics  Subject 5 Subject 6  Credit Points  ence Industrial Experience (Engineering)	1 4 1 1 1 1 1 1 1 4
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi ENGR 3017 ENGR 4025	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology  Subject 4 Credit Points  Steel Structures Engineering Geomechanics Subject 5 Subject 6 Credit Points  ence Industrial Experience (Engineering) Final Year Project 1 (UG Engineering)	1 4 1 1 1 1 1 4 4 1 1 1 1 1 1 1 1 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3002 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi ENGR 3017 ENGR 4025 Business Profes	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology  Subject 4  Credit Points  Steel Structures Engineering Geomechanics  Subject 5 Subject 6  Credit Points  ence Industrial Experience (Engineering) Final Year Project 1 (UG Engineering) sional Subject 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi ENGR 3017 ENGR 4025 Business Major 3	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology  Subject 4  Credit Points  Steel Structures Engineering Geomechanics  Subject 5 Subject 6  Credit Points  ence Industrial Experience (Engineering) Final Year Project 1 (UG Engineering) sional Subject 3 Subject 7	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi ENGR 3017 ENGR 4025 Business Profes	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology  Subject 4  Credit Points  Steel Structures Engineering Geomechanics  Subject 5 Subject 6  Credit Points  ence Industrial Experience (Engineering) Final Year Project 1 (UG Engineering) sional Subject 3 Subject 7 Subject 8	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi ENGR 3017 ENGR 4025 Business Major 3 Business Major 3	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology  Subject 4  Credit Points  Steel Structures Engineering Geomechanics  Subject 5 Subject 6  Credit Points  ence Industrial Experience (Engineering) Final Year Project 1 (UG Engineering) sional Subject 3 Subject 7	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi ENGR 3017 ENGR 4025 Business Profes Business Major 3 Business Major 3 Spring session	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology  Subject 4  Credit Points  Steel Structures Engineering Geomechanics  Subject 5 Subject 6  Credit Points  ence Industrial Experience (Engineering) Final Year Project 1 (UG Engineering) sional Subject 3 Subject 7 Subject 8  Credit Points	1 4 1 1 1 1 1 1 1 4 4 4 4 4 4 4 4 4 4 4
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi ENGR 3017 ENGR 4025 Business Major 3 Business Major 3 Spring session ENGR 4026	Hydraulics Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology Subject 4 Credit Points  Steel Structures Engineering Geomechanics Subject 5 Subject 6 Credit Points  ence Industrial Experience (Engineering) Final Year Project 1 (UG Engineering) sional Subject 3 Subject 7 Subject 8 Credit Points  Final Year Project 2 (UG Engineering)	1 1 1 1 1 1 1 1 1 4 1 1 1 1 1 1 1 1 1 1
Year 4 Autumn session CIVL 3014 CIVL 3002 CIVL 4017 Business Major 3 Spring session CIVL 3012 CIVL 3007 Business Major 3 Business Major 3 Year 5 Autumn session Industrial Experi ENGR 3017 ENGR 4025 Business Profes Business Major 3 Business Major 3 Spring session	Hydraulics  Credit Points  Structural Analysis Concrete Structures (UG) Surface Water Hydrology  Subject 4  Credit Points  Steel Structures Engineering Geomechanics  Subject 5 Subject 6  Credit Points  ence Industrial Experience (Engineering) Final Year Project 1 (UG Engineering) sional Subject 3 Subject 7 Subject 8  Credit Points	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

10

**Business Core Subject 3** 

Business Professional Subject 4	
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

Year 1 Spring session MATH 1016 Mathematics for Engineers 1 PROC 1008 Introduction to Materials Engineering Business Core Subject 1 Business Core Subject 2  Credit Points  Autumn session MATH 1019 Mathematics for Engineers 2 ENGR 1011 Engineering Physics Business Core Subject 3 Business Core Subject 4  Credit Points  Year 2 Spring session ENGR 1018 Fundamentals of Mechanics Business Professional Subject 1 Business Professional Subject 2 Business Major Subject 1  Credit Points  Autumn session MECH 2003 Mechanics of Materials CIVL 2003 Fluid Mechanics Business Major Subject 2 Business Major Subject 3  Credit Points  Year 3 Spring session ENGR 2016 Pavement Materials and Design CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering CIVL 2002 Environmental Engineering CIVL 2001	10 10 10 40 40 10 10 40
MATH 1016 Mathematics for Engineers 1 PROC 1008 Introduction to Materials Engineering Business Core Subject 1 Business Core Subject 2  Credit Points  Autumn session  MATH 1019 Mathematics for Engineers 2 ENGR 1011 Engineering Physics Business Core Subject 3 Business Core Subject 4  Credit Points  Year 2  Spring session ENGR 1018 Fundamentals of Mechanics Business Professional Subject 1 Business Professional Subject 2 Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials CIVL 2003 Fluid Mechanics Business Major Subject 2 Business Major Subject 2 Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering	10 10 10 40 10 10 10 40
Business Core Subject 1 Business Core Subject 2  Credit Points  Autumn session  MATH 1019  Mathematics for Engineers 2  ENGR 1011  Engineering Physics  Business Core Subject 3  Business Core Subject 4  Credit Points  Year 2  Spring session  ENGR 1018  Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003  Mechanics of Materials  CIVL 2003  Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016  Pavement Materials and Design  CIVL 2007  Introduction to Structural Engineering  CIVL 2002  Environmental Engineering	10 10 10 40 10 10 10 40
Business Core Subject 2  Credit Points  Autumn session  MATH 1019  Mathematics for Engineers 2  ENGR 1011  Engineering Physics  Business Core Subject 3  Business Core Subject 4  Credit Points  Year 2  Spring session  ENGR 1018  Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003  Mechanics of Materials  CIVL 2003  Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016  Pavement Materials and Design  CIVL 2007  Introduction to Structural Engineering  CIVL 2002  Environmental Engineering	10 40 40 10 10 10 10 40
Credit Points  Autumn session  MATH 1019 Mathematics for Engineers 2  ENGR 1011 Engineering Physics  Business Core Subject 3  Business Core Subject 4  Credit Points  Year 2  Spring session  ENGR 1018 Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10 40 10 10 10 10 40
Credit Points  Autumn session  MATH 1019 Mathematics for Engineers 2  ENGR 1011 Engineering Physics  Business Core Subject 3  Business Core Subject 4  Credit Points  Year 2  Spring session  ENGR 1018 Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	40 10 10 10 10 40
Autumn session  MATH 1019 Mathematics for Engineers 2  ENGR 1011 Engineering Physics  Business Core Subject 3  Business Core Subject 4  Credit Points  Year 2  Spring session  ENGR 1018 Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10 10 10 10 40
MATH 1019 Mathematics for Engineers 2 ENGR 1011 Engineering Physics Business Core Subject 3 Business Core Subject 4  Credit Points  Year 2 Spring session ENGR 1018 Fundamentals of Mechanics Business Professional Subject 1 Business Professional Subject 2 Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials CIVL 2003 Fluid Mechanics Business Major Subject 2 Business Major Subject 2 Business Major Subject 3  Credit Points  Year 3 Spring session  ENGR 2016 Pavement Materials and Design CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering	10 10 10 40
ENGR 1011 Engineering Physics  Business Core Subject 3  Business Core Subject 4  Credit Points  Year 2  Spring session  ENGR 1018 Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10 10 10 40
Business Core Subject 3 Business Core Subject 4  Credit Points  Year 2  Spring session  ENGR 1018  Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003  Mechanics of Materials  CIVL 2003  Fluid Mechanics  Business Major Subject 2  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016  Pavement Materials and Design  CIVL 2007  Introduction to Structural Engineering  CIVL 2002  Environmental Engineering	10 10 <b>40</b>
Business Core Subject 4  Credit Points  Year 2  Spring session  ENGR 1018  Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003  Mechanics of Materials  CIVL 2003  Fluid Mechanics  Business Major Subject 2  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016  Pavement Materials and Design  CIVL 2007  Introduction to Structural Engineering  CIVL 2002  Environmental Engineering	10 <b>40</b>
Credit Points  Year 2  Spring session  ENGR 1018 Fundamentals of Mechanics  Business Professional Subject 1  Business Professional Subject 2  Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	40
Year 2 Spring session ENGR 1018 Fundamentals of Mechanics Business Professional Subject 1 Business Professional Subject 2 Business Major Subject 1  Credit Points  Autumn session MECH 2003 Mechanics of Materials CIVL 2003 Fluid Mechanics Business Major Subject 2 Business Major Subject 3  Credit Points  Year 3 Spring session ENGR 2016 Pavement Materials and Design CIVL 2002 Environmental Engineering CIVL 2002	
Spring session ENGR 1018 Fundamentals of Mechanics Business Professional Subject 1 Business Professional Subject 2 Business Major Subject 1  Credit Points  Autumn session MECH 2003 Mechanics of Materials CIVL 2003 Fluid Mechanics Business Major Subject 2 Business Major Subject 2 Business Major Subject 3  Credit Points  Year 3  Spring session ENGR 2016 Pavement Materials and Design CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering	1.0
ENGR 1018 Fundamentals of Mechanics Business Professional Subject 1 Business Professional Subject 2 Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials CIVL 2003 Fluid Mechanics Business Major Subject 2 Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering	1.0
Business Professional Subject 1 Business Professional Subject 2 Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
Business Professional Subject 2 Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
Business Major Subject 1  Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
Credit Points  Autumn session  MECH 2003 Mechanics of Materials  CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
MECH 2003 Mechanics of Materials CIVL 2003 Fluid Mechanics Business Major Subject 2 Business Major Subject 3  Credit Points  Year 3  Spring session ENGR 2016 Pavement Materials and Design CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering	40
CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	
CIVL 2003 Fluid Mechanics  Business Major Subject 2  Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
Business Major Subject 3  Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
Credit Points  Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	10
Year 3  Spring session  ENGR 2016 Pavement Materials and Design  CIVL 2007 Introduction to Structural Engineering  CIVL 2002 Environmental Engineering	40
Spring session ENGR 2016 Pavement Materials and Design CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering	-10
ENGR 2016 Pavement Materials and Design CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering	
CIVL 2007 Introduction to Structural Engineering CIVL 2002 Environmental Engineering	10
CIVL 2002 Environmental Engineering	10
	10
CIVE 3011 HVGIAURCS	
Credit Points	10
	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	
CIVL 3007 Engineering Geomechanics	10
Business Major Subject 4	10 10

ELEC 1003	Electrical Fundamentals	10
	Credit Points	40
Autumn session		
CIVL 1001	Surveying for Engineers	10
Business Major Subject 5		10
Business Major Subject 6		10
ELEC 1006	Engineering Computing	10
	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 Professional 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/2021-2022/programs/bachelorengineering-advanced-honours/)

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

hbook.westernsydney.edu.au/archives/2021-2022/programs/bachelorengineering-science/)