

## Enrolment Course Structure

Course Code – EN8.CIV

Course Name – Bachelor of Engineering (Civil) (Honours)

Location: MTH

First Year			
Unit Code	Unit Name	Unit Rules	CR Points
Semester 1			
ENGRG 1001	Computational Skills for Engineers	EX: ENGIN1004	15
ENGRG 1002	Physics for Engineers 1	EX: ENGIN1002	15
ENGRG 1003	Engineering Design 1	EX: ENGIN1005	15
MATHS 1100	Applied Mathematics 1	EX: MATHS1001	15
Semester 2			
COOPE 1001	Professional Identity (Engineering)	PR: Enrolled in EN8.CIV, EN8.EIE, EN8.MEC, EN8.MIN	15
ENGRG 1004	Physics for Engineers 2	EX: ENGIN1002 & ENGIN1003	15
ENGRG 1005	Engineering Design 2	EX: ENGIN1004 & ENGIN3002	15
MATHS 2100	Applied Mathematics 2	EX: MATHS1005 & MATHS1102	15
Second Year	Unit Name	Unit Rules	CR Points
Semester 1			
ENGRG 2106	Hydrology and Hydraulics	PR: ENGRG1002 EX: ENGIN2201	15
ENGRG 2107	Construction Engineering	PR: ENGRG1004 EX: ENGRG2101	15
ENGRG2301	Solid Mechanics	PR: ENGRG1003 EX: ENGIN2301	15
	Minor Unit 1		15
Semester 2			
ENGRG 2102	Geotechnical Engineering 1	PR: ENGRG1002 EX: ENGIN2204	15
ENGRG 2103	Water and Wastewater System	PR: ENGRG1002 EX: ENGIN3206	15
ENGRG 2104	Structural Engineering 1	PR: ENGRG1003 EX: ENGIN2203	15
	Minor Unit 2		15

Third Year	Unit Code	Unit Name	Unit Rules
<b>Semester 1</b>			
COOPE 2011	Cooperative Placement 1 (Engineering)	<b>PR:</b> COOPE1001 & At least 105 credit points from ENGRG subject-area at any level <b>EX:</b> BUGEN3751 & BUGEN3752 & SCCOR3003 & SCCOR3014 & COOPC2025 & COOPC2005	30
ENGRG 3101	Structural Engineering 2	<b>PR:</b> ENGRG2104 or ENGIN2203 <b>EX:</b> ENGIN3201	15
	Minor Unit 3		15
<b>Semester 2</b>			
COOPE 2012	Cooperative Placement 2 (Engineering)	<b>PR:</b> COOPE1001 & At least 105 credit points from ENGRG subject-area at any level	30
ENPG 9110	Road and Traffic Engineering	<b>EX:</b> ENGIN205 & ENGRG2105	15
	Minor Unit 4		15
Fourth Year	Unit Code	Unit Name	Unit Rules
<b>Semester 1</b>			
ENGRG 4001	Engineering Design Project	<b>PR:</b> At least 300 credit points <b>EX:</b> ENGIN3002	15
ENGRG 4002	Engineering Capstone Project 1	<b>PR:</b> At least 300 credit points <b>EX:</b> ENGIN4001	15
ENGRG 9101	Modelling and Simulation in Engineering	<b>EX:</b> ENGRG4101	15
ENGRG 9103	Water Resource Management	<b>EX:</b> ENGIN2203	15
<b>Semester 2</b>			
ENGRG 4105	Geotechnical Engineering	<b>PR:</b> ENGRG2102 <b>EX:</b> ENGIN3202 & ENGRG3102	15
ENGRG 4003	Engineering Capstone Project 2	<b>PR:</b> ENGRG4002 <b>EX:</b> ENGIN4002	30
ENGRG4106	Intelligent Technologies for Sustainable Construction	<b>PR:</b> ENGRG2107 <b>EX:</b> ENGIN4203 & ENPG9105 & ENGRG4102	15

### Course Coordinator

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## Minor Units

### AI IN ENGINEERING

ITECH 1400 Foundations of Programming

ITECH 1504 Connected Systems

ITECH 2500 Algorithms for Artificial Intelligence

ITECH 3500 Machine Learning 1

### BUSINESS ENTREPRENEURSHIP (ECONOMICS AND FINANCE)

BUECO 1300 Introduction to Economics

BUECO 2301 Financial Markets and Digital Innovations

BUECO 2302 Investment and Portfolio Management

BUECO 3304 Sustainability and Development

### ENVIRONMENTAL SCIENCE

SCENV 3120 Landscape Restoration and Mine Site Rehabilitation

SCENV 3500 Climate and Environmental Issues in a Changing World

SCENV 2600 Geographic Information Systems

SCSUS 1500 Sustainable Earth

### MINING TECHNOLOGY

ENGRG 2306 Surface Mining Operations and Equipment

ENGRG 2404 Rock Mechanics Application

ENGRG 3403 Underground Production Systems

ENGRG 2403 Rock Fragmentation

## Additional Information

This course structure applies to students commencing from 2026. Students who commenced prior to 2026 should refer to the continuing enrolments page.

## Glossary

**Semester:** designated teaching period.

**PR:** Pre-requisite, a unit/s that must be completed prior to undertaking another unit.

**CO:** Co-requisite, a unit/s that must be completed simultaneously, or prior to, undertaking another unit.

**EX:** Exclusion, a unit/s that may not be taken.