

Enrolment Course Structure

Course Code – EN8.MIN

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

Location: MTH

First Year			
Unit Code	Unit Name	Unit Rules	CR Points
Semester 1			
ENGRG 1001	Computational Skills for Engineers		15
ENGRG 1002	Physics for Engineers 1		15
ENGRG 1003	Engineering Design 1		15
MATHS 1100	Applied Mathematics 1	EX: MATHS1001	15
Semester 2			
COOPE 1001	Professional Identity (Engineering)	PR: Students must be enrolled in one of the following courses: EN8, EN8.MIN, EN8.MEC, EN8.EIE, EN8.CIV	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 Code	Unit Name	Unit Rules	CR Points
Semester 1			
ENGRG 2301	Solid Mechanics	PR: ENGRG1003	15
ENGRG 2402	Mining Geology and Mineral Processing		15
	Minor Unit 1		15
Winter Semester			
ENGRG 2403	Rock Fragmentation	EX: ENGIN2505	15
Semester 2			
ENGRG 2302	Fluid Mechanics	PR: ENGRG1002 & ENGRG1004 EX: ENGIN3301	15
ENGRG 3402	Surface Environment and Ventilation	CR: ENGRG2302	15

ENGRG 2404	Rock Mechanics Application	EX: ENGIN5507	15
Minor Unit 2			15
Third Year			
Unit Code	Unit Name	Unit Rules	CR Points
Semester 1			
COOPE 2011	Cooperative Placement 1 (Engineering)	PR: COOPE1001 & At least 105 credit points from ENGRG subject-area at any level EX: BUGEN3751, BUGEN3752, SCCOR3003, SCCOR3014, COOPC2025, COOPC2005	30
ENGRG 2306	Surface Mining Operations and Equipment	PR: If undertaking an Undergraduate Course THEN must have completed ENGRG2403 EX: ENMIN3070, ENMIN5018	15
Minor Unit 3			15
Semester 2			
COOPE 2012	Cooperative Placement 2 (Engineering)	PR: COOPE1001 & At least 105 credit points from ENGRG subject-area at any level	30
ENGRG 3403	Underground Production Systems	PR: If undertaking an Undergraduate Course THEN must have completed ENGIN2502 EX: ENMIN3020, ENGIN3501	15
Minor Unit 4			15
Fourth Year			
Unit Code	Unit Name	Unit Rules	CR Points
Semester 1			
ENGRG 4001	Engineering Design Project	PR: At least 300 credit points EX: ENGIN3002	15
ENGRG 4002	Engineering Capstone Project 1	PR: At least 300 credit points EX: ENGIN4001	15
ENGP 9405	Mine Planning and Scheduling	EX: ENGRG4401	15
ENGP 9409	Mine Safety and Environmental Engineering	EX: ENGRG9403	15

Semester 2

ENGRG 4003	Engineering Capstone Project 2	PR: ENGRG4002 EX: ENGIN4002	30
ENGRG 9406	Mine Surveying		15
ENGP 9407	Smart Engineering Technologies	EX: ENGRG9407	15

Course Coordinator

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Minor Units

ARTIFICIAL INTELLIGENCE

ITECH 1400 Foundations of Programming

ITECH 1503 Data and Information Systems

ITECH 2500 Algorithms for Artificial Intelligence

ITECH 2501 Business Analytics and Decision Support

BUSINESS ENTREPRENEURSHIP

BUMGT 1100 Introduction to Management

BUMGT 1103 Contemporary Human Resource Management

BUMGT 3105 Leadership and Change

BUMGT 3106 Human Resource Practice and Strategy

INFRASTRUCTURE SYSTEMS

ENGP 9110 Road and Traffic Engineering

ENGRG 2106 hydrology and hydraulics

EBGRG 2107 Construction Engineering

ENGRG 4106 Intelligent Technologies for Sustainable Construction

ENVIRONMENTAL SCIENCE

SCENV1001 Environmental Studies

SCENV2600 Geographic Information Systems

SCENV3120 Landscape Restoration and Mine Site Rehabilitation

SCENV3500 Climate and Environmental Issues in a Changing World

ELECTRICAL AND ELECTRONIC SYSTEMS

ENGRG 2201 Digital Logic and Electronic Systems

ENGRG2204 Renewable Energy principles

ENGRG2205 Electrical Machines fundamentals
ENGRG9202 Electrical Demand, Forecasting and Management

MECHANICAL SYSTEMS AND AUTOMATION

ENGRG 2303 Engineering Dynamics
ENGRG 2307 Engineering Computer Applications and Interactive Design
ENGRG 3303 Engineering Materials and Manufacturing
ENGRG 3304 Industrial Automation and IoT

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.