Mid-year Enrolment Course Structure

Course Code – EN8.CIV

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

First Year			
Unit Code	**Unit Rules**	**Unit Rules**	**CR Points**
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 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			
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**	**CR Points**

Semester 1

Unit Code	Unit Name	Unit Rules	CR Points
ENGRG2106	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

Unit Code	Unit Name	Unit Rules	CR Points
COOPE2012	Cooperative Placement 2 (Engineering)	**PR:** COOPE1001 & At least 105 credit points from ENGRG subject-area at any level	30
ENGRG2104	Structural Engineering 1	**PR:** ENGRG1003 **EX:** ENGIN2203	15
	Minor Unit 3		15

Fourth Year

Unit Code	Unit Name	Unit Rules	CR Points

Semester 1

Unit Code	Unit Name	Unit Rules	CR Points
ENGRG9101	Modelling and Simulation in Engineering	**PR:** MATHS2100 or ENGRG2301 or Course: EZO **EX**: ENCIV3502	15
ENGRG3101	Structural Engineering 2	**PR:** ENGRG2104 **EX**: ENCIV3310 & ENGIN3201	15
ENGRG4002	Engineering Capstone Project	**PR**: At least 300 credit points **EX**: ENGIN4001	15
	Minor Unit 4		15

Semester 2

Unit Code	Unit Name	Unit Rules	CR Points
ENGRG4105	Geotechnical Engineering 2	**PR:** ENGRG2102 **EX:** ENGIN3202 or ENGRG3102	15
ENGRG4106	Intelligent Technologies for Sustainable Construction	**PR:** ENGRG2107 **EX:** ENGIN4203 or ENGRG4102 or ENGPG9105	15
ENGRG4003	Engineering Capstone Project 2		30

Fifth Year

Unit Code	Unit Name	Unit Rules	CR Points

Semester 1

Unit Code	Unit Name	Unit Rules	CR Points
ENGRG9103	Water Resource Management	**PR:** ENGRG2103 & ENGRG2106 **EX:** ENGIN4201	15
ENGRG4001	Engineering Design Project 1		15

COOPE2011	Co-Operative Placement 1 (Engineering)	**PR**: At least 105 credit points & COOPE1001 **EX**: BUGEN3751, BUGEN3752, SCCOR3003, SCCOR3014, COOPC2025, COOPC2005	30

Minor Units

<u>AI IN ENGINEERING</u>

ITECH1400 Foundations of Programming

ITECH1504 Connected Systems

ITECH2500 Algorithms for Artificial Intelligence

ITECH3500 Machine Learning 1

<u>BUSINESS ENTREPRENEURSHIP (ECONOMICS AND FINANCE)</u>

BUECO1300 Introduction to Economics

BUECO2301 Financial Markets and Digital Innovations

BUECO2302 Investment and Portfolio Management

BUECO3304 Sustainability and Development

<u>COMPUTATIONAL ENGINEERING</u>

ENGRG9101 Modelling and Simulation in Engineering

ITECH1400 Foundations of Programming

ITECH2500 Algorithms for Artificial Intelligence

ITECH2509 Data Structures and Algorithms

<u>ENERGY STUDIES</u>

ENGRG2302 Fluid Mechanics

ENGRG2304 Thermodynamics

ENGRG9101 Modelling and Simulation in Engineering

ENGRG9304 Energy Conversion

<u>ENVIRONMENTAL ENGINEERING</u>

SCENV2400 Wetlands and Water Resources

SCENV3120 Landscape Restoration and Mine Site Rehabilitation

SCENV3500 Climate and Environmental Issues in a Changing World

SCGEO1104 Landscape Evolution

SCGEO2106 Hydrology

SCSUS1500 Sustainable Earth

INDUSTRY 4.0

ENGRG4201 Control System Engineering

ENGRG9203 Advanced Control System Engineering

ENGRG9301 Computer Aided Manufacturing

ITECH1502 Cybersecurity Fundamentals

ITECH1503 Data and Information Systems

ITECH1504 Connected Systems

MINING TECHNOLOGY

ENGRG2401 Introduction to Mining Engineering and Technologies

ENGRG2404 Rock Mechanics Application

ENGRG3401 Surface and Underground Mining Systems

ENGRG4401 Mine Planning and Scheduling

PROJECT MANAGEMENT

ENGIN5205 Engineering Project Management Theory

ENGIN5208 Sustainable Engineering Practice

ENGIN5209 Engineering Project Resource Planning

ENGIN5210 Engineering Project Execution

SOFTWARE ENGINEERING

ITECH1400 Foundations of Programming

ITECH1503 Data and Information Systems

ITECH2004 Data Modelling

ITECH2306 Agile Coding

STATISTICAL DATA SCIENCE

ITECH5007 Data Science for All

STATS1000 Statistical Methods

STATS2100 Experimental Design & Analysis

STATS2101 Statistics for Prediction

Specialisation Elective Unit 1
ENGRG9101 Modelling and Simulation in Engineering
ENGRG9103 Water Resource Management

Specialisation Elective Unit 2
ENGRG9104 Structural Engineering 3
ENGRG9105 Geotechnical Engineering 3

Additional Information

This Course structure applies to mid-year entry students.

TEQSA have advised that, in accordance with B1.1.3 of [Higher Education Standards Framework (Threshold Standards) 2021](#) all Higher Education Providers are required to show their TEQSA Provider number and Provider Category on all relevant public material. ITS have ensured that our website and email signature templates have been amended to ensure compliance and have provided a knowledge article to assist you to update your signatures. Marketing are working to update the brand library and all social media accounts.

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.