

LEVEL 5 DIPLOMA IN CIVIL TECHNOLOGY

Program Description

The Level 5 Diploma in Civil Technology program aims to provide learners with knowledge, skills and competencies that will be required of them as functional members in engineering and construction community. Working in partnership with the industry, the Diploma in Civil Technology program provides quality education that prepares highly skilled technicians capable of serving the community and fulfilling personal ambitions and excellence.

Program Learning Outcomes

Upon successful completion of the program, the graduates will be able to:

1. Identify, formulate, and solve engineering problems by applying principles of engineering, science and mathematics.
2. Apply the engineering design process to create engineering solutions that meet specified needs that integrates consideration of public health, safety, and welfare, as well as cultural, social, environmental and economic factors.
3. Utilize principles, hardware, and software that are appropriate to produce drawings, reports, quantity estimates and other documents related to civil engineering, and to prepare and review technical drawings and construction details.
4. Demonstrate the necessary skills to conduct standard tests, interpret and analyze results of measurements and experiments on civil engineering materials while identifying and utilizing appropriate technical literature.
5. Communicate technical information effectively with a range of audiences, by applying written, oral and graphical communication in technical and non-technical environments.
6. Function effectively and professionally as a member of a technical team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet technical objectives.

Occupation and Industry Sector

Requirements

Completion Requirements

Students seeking the Level 5 Diploma in Civil Technology qualification must successfully complete all mandatory core courses worth 90 credits

Code	Title	Credit Hours
Civil Technology Core Courses		
Required Credits: 90		
CVT 100	Perform Construction Site Surveying	3
CVT 101	Apply CAD Drafting for Civil Infrastructure	4
CVT 102	Explore Civil Engineering Materials and Testing	4
CVT 103	Explore Soil Mechanics	4
CVT 104	Prepare construction cost and control estimating	3
CVT 200	Perform Structural Analysis	3
CVT 201	Explore the Fundamentals of Road Design	3
CVT 202	Perform technical project-based investigation	4

CVT 203	Discover Building Information Modelling in Construction	4
CVT 204	Assess Water Supply Engineering systems	4
CVT 205	Perform Construction Technology Practices	4
CVT 206	Explore CAD techniques in Civil Engineering	3
CVT 207	Apply principles of geotechnics and substructure	4
CVT 208	Explore Reinforced Concrete Elements	4
CVT 209	Explore Structural Steel elements	3
CVT 210	Develop Urban Transportation Planning Systems	3
CVT 211	Examine environmental engineering concepts	3
GED 100	Develop English language skills	3
HSE 100	Explore Health, Safety and Environment at Workplace	2
MAT 210	Apply fundamental concepts and skills in algebra, geometry, and trigonometry	4
MCT 100	Perform basic machining	4
MCT 102	Discover Fluid Mechanics	2
MCT 110	Interpret and Prepare Technical Drawings	3
MCT 122	Analyse Static Loads	3
MCT 216	Develop knowledge of work organization and management	2
CVT 130	Perform Practical Training 1	2
CVT 230	Perform Practical Training 2	2
CVT 231	Perform practical training in civil engineering based industries.	3

Description	Data
Total Required Credits	90
Program Code	DPCVT
Major Code	CVT

Ideal Study Plan

Recommended Sequence of Study Level 5 Diploma in Civil Technology

Year 1		Credit Hours
Semester 1		
GED 100	Develop English language skills	3
MCT 110	Interpret and Prepare Technical Drawings	3
HSE 100	Explore Health, Safety and Environment at Workplace	2
MAT 210	Apply fundamental concepts and skills in algebra, geometry, and trigonometry	4
CVT 100	Perform Construction Site Surveying	3
MCT 100	Perform basic machining	4
Credit Hours		19
Semester 2		
MCT 102	Discover Fluid Mechanics	2
CVT 101	Apply CAD Drafting for Civil Infrastructure	4
CVT 102	Explore Civil Engineering Materials and Testing	4
MCT 122	Analyse Static Loads	3
CVT 103	Explore Soil Mechanics	4
CVT 104	Prepare construction cost and control estimating	3
MCT 216	Develop knowledge of work organization and management	2
CVT 130	Perform Practical Training 1	2
Credit Hours		24

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Year 2

Semester 3

CVT 200	Perform Structural Analysis	3
CVT 201	Explore the Fundamentals of Road Design	3
CVT 202	Perform technical project-based investigation	4
CVT 203	Discover Building Information Modelling in Construction	4
CVT 204	Assess Water Supply Engineering systems	4
CVT 205	Perform Construction Technology Practices	4
CVT 230	Perform Practical Training 2	2
Credit Hours		24

Semester 4

CVT 206	Explore CAD techniques in Civil Engineering	3
CVT 207	Apply principles of geotechnics and substructure	4
CVT 208	Explore Reinforced Concrete Elements	4
CVT 209	Explore Structural Steel elements	3
CVT 210	Develop Urban Transportation Planning Systems	3
CVT 211	Examine environmental engineering concepts	3
CVT 231	Perform practical training in civil engineering based industries.	3
Credit Hours		23
Total Credit Hours		90