

HIGHER NITEC IN TECHNOLOGY - CIVIL & STRUCTURAL ENGINEERING DESIGN

Course Code: HTCSZ

COURSE OBJECTIVE

This course provides students with the technical skills and knowledge to prepare BIM models, steel structural drawings, reinforced concrete drawings and civil engineering drawings according to designer's sketches and specifications in compliance with architectural drawings and relevant Codes of Practices.

COURSE STRUCTURE

S/N	Module Details	Module Code	Module Objectives
C1	Engineering Graphics 39 hrs (T) 81 hrs (P) Credits: 6 Prerequisite: Nil	ED4001FP	On completion of the module, students should be able to produce technical sketches, engineering detailed drawings, 3D solid modelling, assembly drawings in accordance with ISO standards.
		Equivalent Code ED4001PA	
C2	Building Information Modelling 39 hrs (T) 81 hrs (P) Credits: 7 Prerequisite: Advised to complete ED4001FP	ED4007FP	On completion of the module, students should be able to create 3D models, extract information, perform taking-off from BIM model and produce BIM components.
		Equivalent Code Nil	
C3	Building Structures and External Works 60 hrs (T) 60 hrs (P) Credits: 8 Prerequisite: Advised to complete ED4001FP	ED4004FP	On completion of the module, students should be able to produce foundation layout plans and schedules of footing and staircase, reinforced concrete drawings of floor, staircase, and structural components such as foundations, retaining walls and detailed drawings of external works such as drains, sewers, culverts, carriageway, drainage and sewerage systems.
		Equivalent Code Nil	
C4	Reinforced Concrete Detailing and Design 40 hrs (T) 80 hrs (P) Credits: 8 Prerequisite: Advised to complete ED4001FP	ED5001FP	On completion of the module, students should be able to create 3D models using BIM, to draw structural drawings for piling, pile caps, reinforced concrete core walls, prepare column schedules and detailed drawings of reinforced concrete beams and slabs, precast concrete components and precast beam and slab drawings.
		Equivalent Code Nil	
C5	Steel Structure Detailing and Design 60 hrs (T) 60 hrs (P) Credits: 7 Prerequisite: Advised to complete ED4001FP	ED5003FP	On completion of the module, students should be able to create 3D steel structure models using BIM software and to produce structure working drawings with detailed connections of steel members.
		Equivalent Code ED5003PA	

Abbreviations: T - Theory, P - Practical

CREDITS FOR CERTIFICATION

Total of 36 credits from successful completion of 5 modules.

VENUE

ITE College East

Note:

- 1) The training schedule of lessons is subject to change.
- 2) Depending on the demand, not all the modules in the CET *Higher Nitec* in Technology courses will be offered in each intake. Where the modules are offered and there is insufficient enrolment, the classes will be cancelled and a full refund will be given to the affected students.