HIGHER NITEC IN INTEGRATED MECHANICAL & ELECTRICAL DESIGN

Core Modules

Engineering Graphics
On completion of the module, students should be able to produce technical sketches, engineering detailed drawings, 3D solid modelling, and assembly drawings in accordance with ISO standards.

Engineering Mathematics and Statics
On completion of the module, students should be able to apply knowledge of mathematics to solve engineering problems involving the use of algebra, indices, logarithms, trigonometry and statistics. Students would also be equipped with the fundamental knowledge of statics, and be able to solve engineering problems involving equilibrium of bodies subjected to forces.

Building Information Modelling
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.

Electrical System Design
On completion of the module, students should be able to perform design on electrical system for buildings, and prepare the drawings in accordance to the standard codes of practice and government regulations.

Air Conditioning and Ventilation System Design
On completion of the module, students should be able to estimate the cooling load of a building, create 3D models and perform design on air-conditioning ducting, and prepare working drawings for ducting layouts and related pipework using catalogues and in accordance to the standard codes of practice and government regulations.

Plumbing and Fire Protection System Design
On completion of the module, students should be able to produce piping layouts and prepare drawings on plumbing system, sanitary system and sprinkler system in accordance to the standard codes of practice and government regulations.

Industry Attachment
Students will be attached to M&E consultant companies to complement and reinforce the skills and knowledge acquired at ITE and to develop competencies in other specialised areas.