

HIGHER NITEC IN OFFSHORE & MARINE ENGINEERING DESIGN

Core Modules

Engineering Graphics

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

Offshore and Marine Structure Design

On completion of the module, students should be able to perform offshore and marine initial design and prepare general arrangement and structural drawings in accordance with standards and appropriate classification society requirements.

Offshore and Marine Electrical System Design

On completion of the module, students should be able to design electrical system of a ship, including control and communication system, and prepare the drawings in accordance with standards and appropriate classification society requirements.

Offshore and Marine Piping System Design

On completion of the module, students should be able to design mechanical piping, marine system, life safety and fire fighting appliance of a ship, and prepare the drawings in accordance to standards, appropriate classification society, Safety of Life at Sea (SOLAS) and International Maritime Organization (IMO) requirements.

Offshore and Marine HVAC System Design

On completion of the module, students should be able to estimate the cooling load of a ship, design air-conditioning and mechanical ventilation ducting, heating system and prepare working drawings for ducting layouts and related pipe work in accordance with ISO standards and appropriate classification society requirements.

Marine Structure and System Modelling

On completion of the module, students should be able to use the latest 3D modelling software to support the design of both conventional offshore platforms and other marine vessels in accordance with industry requirements.

Industry Attachment

Students will undertake a 6-month industry attachment at the shipyards and design consultancy companies in the marine sector to complement and reinforce the skills and knowledge acquired at ITE to develop other competencies in other specialised areas.