

Diploma (Specialized in Marine Engineering)

OVERVIEW

Marine Engineering includes the engineering of boards, ships, oil rigs, and any other marine vessel or structure, as well as oceanographic engineering. Specifically, Marine Engineering is the discipline of applying engineering sciences including Mechanical Engineering, Electrical Engineering, Electronic engineering and computer science to the development, design, operation and maintenance of watercraft propulsion and on-board systems and oceanographic technology. It includes but is not limited to power and propulsion plants, machinery, piping, automation and control systems for marine vehicles of any kind, such as surface ships and submarines.

PROGRAMME OBJECTIVES:

The Diploma (Specialized in Marine Engineering) is a foundation diploma for learners to understand the scope of marine engineering in the industry. Learner will learn to apply Marine engineering theory to practice and competently perform technical operations to the standards expected by the engineering profession. Upon completion of the course, the student may progress to Specialist Diploma levels.

DURATION COMPONENTS:

Classroom Training Hours: 30 Hours Per Module

MODULE SYNOPSIS:

FWSH101 Fundamental of Workplace Safety and Health

The Fundamental of Workplace Safety and Health module provides students with the requisite knowledge of Health and Safety in the workplace. Upon completion of the module, students should be able to identify hazards in the workplace and state their possible effects and outline methods for creating a safe working environment and dealing with incidents.

MP102 Managing People

The Managing People module provides students with a solid grounding in the basics of managing people in the organization. Students are expected to identifying the various models and methods available to monitor tasks, explaining how orders are given and discuss the steps involved in ensuring that those orders are carried out.

ME106 Material Engineering

The Material Engineering module is designed to equip students with understand the importance of engineering materials and its properties, destructive testing and non-destructive testing, heat treatment and Iron - Carbon Equilibrium Diagram, Ferrous, Non- Ferrous and their Alloys and powder metallurgy and primary manufacturing process.

ASSESSMENT METHODS:

100% Coursework

PROGRAMME OUTCOMES:

The Diploma Programme in Marine Engineering seeks to provide more accessible and quality education and training to production personnel to meet the real work needs of marine industry and prepare them for the changes in techniques, technologies, markets and employment patterns. This Programme has been designed to enhance quality and productivity of marine personnel.

Upgrade and modernize the technical know-how of those will to engaged in the marine-related activities, of advancing their careers in marine; and Provide better industry-education linkage by matching learner's educational needs while collaborating with professional bodies and technical institution

AWARDING BODIES:

Global School of Technology and Management

NUMBER OF MODULE:

6

TOTAL CONTACT HOURS:

180

MD113 Marine Dynamics

This module aims to provide students with the basic seakeeping qualities expected from a good ship and an offshore design. Students will understand the factors influencing the seakeeping characteristics of ships and offshore structures and predict the seakeeping behaviour of ships and offshore structures. Students also learn the fundamental concepts of ship manoeuvring and identify the experimental methods used for obtaining motion derivatives and the post-processing of obtained data, including the derivation of semi-empirical methods.

EM105 Engineering Mechanics

The Engineering Mechanics module is equipped students with the solid understanding on importance of Statics and Dynamics in engineering. Students will be able to identify the machine members in which friction exists, comprehend the principals involved in Simple Mechanism and to explain the Geometric Properties of Sections and Basic Link Mechanism.

MEK106 Marine Engineering Knowledge

The Marine Engineering Knowledge module provides students with a basic understanding of the different types of ship and their prime movers, construction and operation of compression ignition engine, principals involved in steam turbines and gearing and refrigeration and air conditioning.