

## **Module Objectives**

### **Year 1 Modules**

#### **Workplace Safety & Health Management at Shipyard**

On completion of the module, trainees should be able to apply the knowledge in Workplace Safety & Health Management and operational aspects of marine safety at the shipyard and production workshops

#### **Marine Production Technology**

On completion of the module, trainees should be equipped with the knowledge in basic properties and applications of materials. They should also be able to install and test marine and offshore systems and fabricate steel structures and blocks for marine vessels and offshore installations

#### **Fundamental of Marine Design & Drafting**

On completion of the module, trainees should be able to interpret ship general arrangement drawings, tank arrangement drawings and block assembly drawings. They should also be able to produce lines, docking and integrity plans.

### **Year 2 Specialisation Modules (Engineering Design)**

#### **Applied Engineering Mathematics & Science**

On completion of the module, trainees should be able to apply essential mathematical and science knowledge and analytical skills to naval architectural and marine system design work.

#### **Marine Structure & Piping System Design**

On completion of the module, trainees should be able to produce arrangement drawing of hull structure, mechanical equipment, and marine piping system in accordance with appropriate standards, classification societies, Safety of Life at Sea (SOLAS) and International Maritime Organization (IMO) requirements.

#### **Marine Mechanical & Electrical System Design**

On completion of the module, trainees should be able to design marine and offshore electrical and HVAC systems, and prepare drawings in accordance with appropriate standards, classification societies, Safety of Life at Sea (SOLAS) and International Maritime Organization (IMO) requirements.

#### **Basic Naval Architecture**

On completion of the module, trainees should be able to perform engineering calculations to analysis ship flotation, equilibrium and stability, evaluate design considerations for various types of platforms and ships to meet design standards and statutory rules.

## **Year 3 Modules**

### **Effective Supervision**

On completion of the module, trainees should be able to perform supervision in the marine industry and possess design thinking and communication skills in their approach towards complex issues and problems.

### **Project Management**

On completion of the module, trainees should be able to apply the knowledge in newbuilding processes, shipyard organization, material flow and key concepts of management process, critical path analysis, and use of computer applications for project administration of ship repair or newbuilding projects.

### **Company Project**

On completion of the module, trainees should have applied their acquired competencies in an authentic project that would value-add to the company.

### **On-the-Job Training**

On completion of the module, trainees should be able to apply the skills and knowledge acquired at ITE College and workplace to take on the full job scope, including supervisory function, where appropriate, at the company.