



STCW High Voltage

Course Introduction:

The STCW High Voltage Course provides comprehensive theoretical training for maritime professionals to safely and efficiently work with high-voltage (HV) systems on board vessels. This course aligns with the Standards of Training, Certification, and Watchkeeping (STCW) requirements, equipping participants with essential knowledge of international safety standards, HV equipment handling, and risk management. Emphasis is placed on understanding potential hazards, safety protocols, and effective emergency response strategies when dealing with high-voltage systems.

Participants will explore crucial topics, including safe working procedures, personal protective equipment (PPE), grounding networks, and arc fault prevention. The course also covers international technical standards, HV equipment safety guidelines, and protective relay systems. Through accident and case analyses, attendees will gain insights into real-world scenarios, ensuring they can identify risks and implement preventive measures while working on high-voltage installations.

Course Objectives:

Upon completion of this course, participants will:

- Understand safe practices for working on high-voltage (HV) equipment.
- Identify international requisites and technical standards for HV work on board ships.
- Recognize the dangers associated with HV systems, including arc faults and electrical hazards.
- Apply safe working procedures, including proper PPE and specialized tools for HV tasks.
- Analyze individual and group case studies related to HV incidents.
- Understand general protection systems and power plant regulations.
- Gain awareness of switching operations and relay protection systems.

Who Should Attend?

This course is designed for marine engineers, electro-technical officers (ETOs), electrical supervisors, and shipboard personnel responsible for the operation, maintenance, and safety of high-voltage systems on board vessels. It is ideal for those seeking to enhance their theoretical understanding of high-voltage safety without the need for practical sessions, ensuring compliance with international safety standards and best practices.

Course Outline:

Topics:

- Safe Steps for working on HV equipment
- International Requisites for HV Work On-board
- Grounding Network Simulation Exercise
- Safe Working Procedures
- PPE and Tools for HV Work
- International Technical Standards
- HV Equipment Safety Guidelines
- Dangers of Electricity
- Arc Faults in Switchgear
- Important Considerations in Marine Electrical Installations
- Individual Accident Analysis
- Group Work Case Analysis
- Protection Relay Exercise
- General Protection and Power Plant Regulation
- Switching Exercise

Course Methodology:

A variety of methodologies will be used during the course that including:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

