



Advanced Marine Accidents Investigation Masterclass

08 – 12 December 2025

Dubai / UAE

Course Introduction

This Advanced Marine Accidents Investigation Masterclass training course is designed to equip maritime professionals with the expertise and practical skills needed to carry out thorough investigations into marine accidents. The course emphasizes identifying root causes, understanding relevant legal and regulatory frameworks, and utilizing advanced methods for accident analysis, reporting, and prevention.

This Marine Accidents Investigation training course will:

- Enhance participants' understanding of international standards for marine accident investigations
- Develop advanced analytical skills for identifying root causes and contributing factors
- Provide hands-on experience in evidence collection, preservation, and analysis
- Improve report writing skills aligned with IMO and international guidelines
- Foster proactive strategies for accident prevention and safety management

Training Objectives

By the end of this Marine Accidents Investigation training course, participants will be able to:

- Have an extended knowledge and understanding of the Incident and Accident Theories
- Understand the Common Causes of Marine Accidents
- Gain knowledge on the Principles of Marine Accident Investigation
- Define the Six-step accident investigation process
- Learn the Scene Protection and Examination - Who should be involved at this stage
- Understand the Basic v. Root Cause: Getting from “effect” to “cause”
- Carry out the Site Risk Assessment and Investigation Management
- Describe the Role of the investigation Team Leader and a trained and prepared workforce during an Investigation

Training Methodology

This Marine Accidents Investigation training course will utilize a variety of proven professional learning techniques to ensure maximum understanding, comprehension and retention of the information presented. The training will be highly interactive and participative. This involves regular discussion between both delegates and the course expert tutor. The training course will provide the participant with an in-depth knowledge through Supportive comprehensive course manual Handouts, Power Point Presentation for each session enabling practical application and reinforcement that enabling practical application and reinforcement.

Who should Attend?

This Marine Accidents Investigation training course is suitable to a wide range of professionals but will greatly benefit:

- Designated Persons Ashore (DPA)
- Marine surveyors and inspectors
- Safety officers
- Maritime professionals involved in incident investigations
- Shipping Companies Management & Team Leaders
- Personnel involved in Safety Management System Preparation & Implementation
- Marine Superintendents
- Quality Managers
- Masters, Deck & Engine officers

Course Outline**Day One:** Introduction to Marine Accident Investigations

- Overview of Accident Investigation Principles
- Objectives and importance of investigations
- Key concepts: Safety vs. liability
- Legal and Regulatory Frameworks
- IMO Resolution A.849(20) and its amendments
- International Conventions: SOLAS, MARPOL, COLREGS
- National and flag state investigation requirements
- Common Causes, Types of Marine Incidents and Their Classifications
- The Common Causes of Marine Accidents
- Grounding, collisions, fires, explosions, structural failures, and pollution

Day Two: Investigation Methodology, Process and Procedures

- Phases of Marine Accident Investigations
- Notification and initial response
- Planning and resource allocation
- Evidence collection and preservation
- Advanced Techniques for On-Site Investigations
- Inspection of the scene and damage assessment
- Witness interviewing techniques
- Understanding human factors and crew actions
- Chain of Evidence
- Proper documentation of evidence
- Use of photography, video, and sketches

Day Three: Advanced Analytical Techniques

- Root Cause Analysis (RCA)
- Methods: Fishbone diagrams, 5 Whys, and Bow-Tie analysis
- Practical application in marine accidents
- Human and Organizational Factors
- Human Error Analysis (HEA)
- Safety culture and systemic failures
- Data Analysis and Accident Reconstruction
- Tools and software for data processing
- Simulation and modeling techniques
- Forensic Analysis
- Investigating material failures, fire, and explosion dynamics

Day Four: Reporting and Recommendations

- Report Writing Standards
- IMO guidelines for marine accident reports
- Structure and content of investigation reports
- Writing clear findings and actionable recommendations
- Presentation of Findings
- Communicating findings to stakeholders
- Handling sensitive information
- Lessons Learned and Preventive Measures
- How to use investigation outcomes to improve safety management systems (SMS)
- Feedback loops for continuous improvement

Day Five: Practical Exercises and Case Studies

- Interactive Case Studies
- Analysis of real-life marine accidents
- Group discussions on root causes and preventive measures
- Role-Playing Exercises
- Conducting mock interviews with witnesses
- Simulated accident scenarios for on-site investigations
- Final Assessment
- Participants conduct a complete investigation simulation and present their findings
- Course Wrap-Up

Training Method

- Pre-assessment
- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests
- Each participant receives a 7" Tablet containing a copy of the presentation, slides and handouts
- Post-assessment

Program Support

This program is supported by interactive discussions, role-play, case studies and highlight the techniques available to the participants.

Schedule

The course agenda will be as follows:

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| • Technical Session | 08.30-10.00 am |
| • Coffee Break | 10.00-10.15 am |
| • Technical Session | 10.15-12.15 noon |
| • Coffee Break | 12.15-12.45 pm |
| • Technical Session | 12.45-02.30 pm |
| • Course Ends | 02.30 pm |

Course Fees*

- **5,950 USD**
**VAT is Excluded If Applicable*