



# ClassNK Academy's Mission

ClassNK Academy was established in 2009 to provide people employed in the maritime industry with a working knowledge of shipping and shipbuilding, focusing specifically on surveys, inspections and ship management.

# ClassNK Academy Programs

ClassNK Academy offers various courses over a wide range of topics for both newcomers as well as the experienced.

The course materials are developed based on ClassNK's extensive knowledge of maritime regulations, cutting-edge research and the data and experience gained over more than a hundred years of carrying out classification and related activities.

The course content is primarily aimed at providing new employees and those with limited practical experience at various companies with basic technical knowledge about shipbuilding and shipping. The material also includes the latest technical information, which allows participants to acquire knowledge they can readily put to use.

# Certificate of Completion

Once a course has been taken, ClassNK will issue a certificate of participation to the attendees as proof of their satisfactory completion.

# Classification Societies and International Conventions

This course provides a primer on classification societies, including their role in the maritime industry, history, and core duties. Additionally, it covers outlines of ship inspections (Class Surveys, Statutory Surveys, etc.) and the major international conventions applicable to ships.

This course will help you deepen your understanding of the interactions and relationships between classification societies and other members of the maritime community.

### Featured Contents:

- Classification Societies
- Classification surveys & Statutory surveys
- International Conventions

### Duration: One day

### Who Should Attend?

Superintendents, ship officers, shipbuilders and repair yard personnel, etc.  
(0-2 years experience)



# Classification Surveys (Hull)

This course provides the outlines of classification surveys for hull on new ships in construction. Additionally, it covers the outlines of the class maintenance surveys for ships in service as well as typical hull damage and how to deal with it.

This course will help you deepen your understanding of preparation for surveys and proper maintenance on hull.

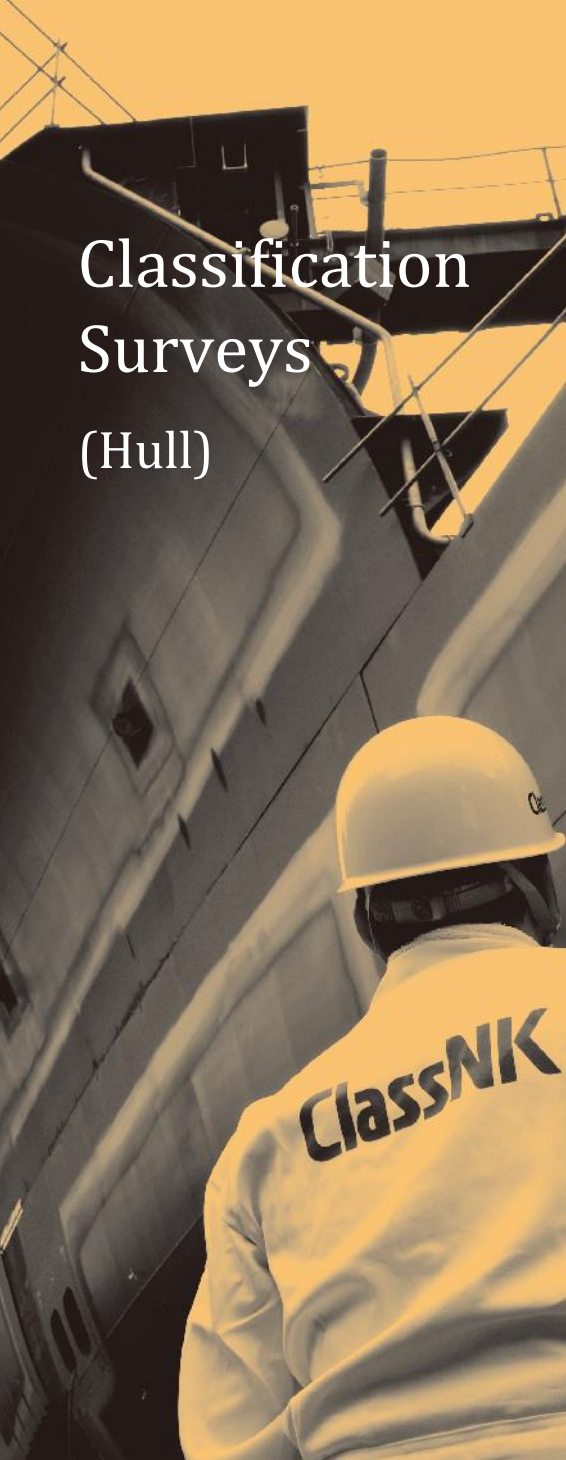
## Featured Contents:

- Classification surveys (Hull)
- Acceptance inspection
- Hull structure inspection
- Inspection before launching
- Corrosion prevention
- Hull outfitting
- Stability experiments
- Class maintenance surveys (Hull)
- Hull Damage

**Duration: One day**

## Who Should Attend?

Superintendents, and shipbuilders, etc.  
(0-2years experience)



# Classification Surveys (Machinery & Electrical Installations)

This course provides the outlines of the classification surveys for machinery and electrical installations for new ships in construction. Additionally, it covers the outline of the class maintenance surveys for ships in service as well as machinery damage investigations.

This course will help you deepen your understanding of preparation for surveys and proper maintenance on machinery and electrical installations.

## Featured Contents:

- Outline of the Class Surveys
- Survey at Manufacturers
- Survey at Shipyards
- Survey at Shipyards - Piping
- Survey at Shipyards - Electrical
- Survey at Shipyards - Hazardous Areas
- On Board Tests
- Sea Trial
- Class Maintenance Surveys
- Machinery Damages

**Duration: One day**

## Who Should Attend?

Superintendents, shipbuilders and repair yard personnel, etc.  
(0-2 years experience)



# Materials and Welding

This course provides the explanation of the process to produce steel materials for ships, welding methods during ship construction, examples of welding defects, and checkpoints during inspections.

This course will help you deepen your understanding of the basics and necessary surveys regarding materials, welding and non-destructive testing.

## Featured Contents:

- Outlines Materials, Welding and Non-Destructive Testing
- Outline of welding
- Outlines Non-Destructive Testing
- Vertical Inspection for ensuring the quality of hull welds

## Duration: One day

## Who Should Attend?

Superintendents, shipbuilders' personnel, steel manufacturers, repair yard personnel etc.

(0-2 years experience)



# SOLAS

(Safety Equipment,  
Safety Radio)

In this course, we will explain what is described in the International Convention for the Safety of Life at Sea (SOLAS) concerning firefighting appliances, lifesaving appliances, radio installations and navigational equipment which are the essential parts of safe navigation and cargo handling operation. This course will help you understand the background and principle of the convention.

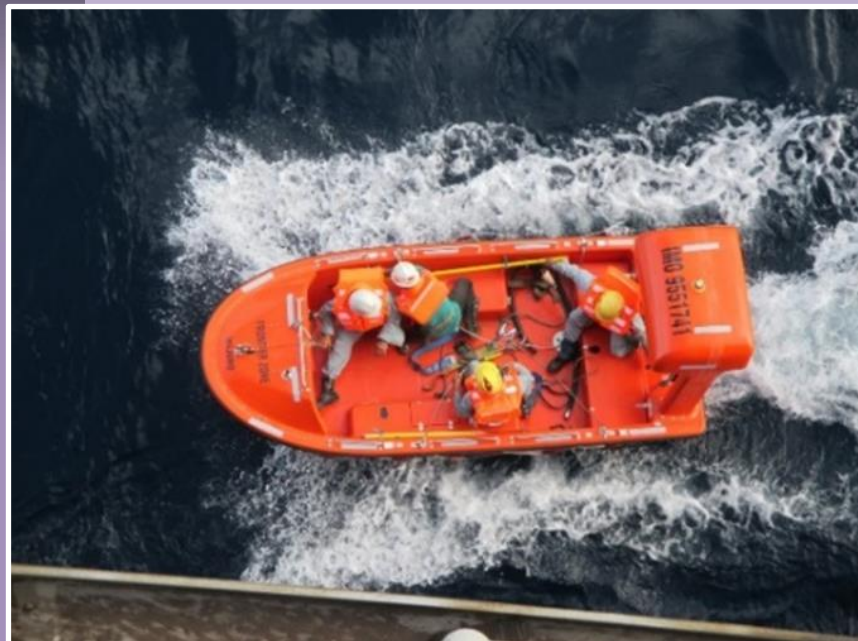
## Featured Contents:

- Fire Protection, Detection & Extinction
- Life-Saving Appliances
- Navigational Equipment
- Preventing Collisions
- Safety Radio
- Deficiencies pointed by PSC

## Duration: One day

## Who Should Attend?

Superintendents, ship officers, shipbuilders and repair yard personnel, etc.  
(0-5 years experience)



# MARPOL, IBC Code, IGC Code

In this course, we will explain what is described in the International Convention for the Prevention of Pollution from Ships (MARPOL), the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code) and The International Code of the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code) which deeply related to marine pollution. This course will help you understand the background and principle of these conventions and regulations.

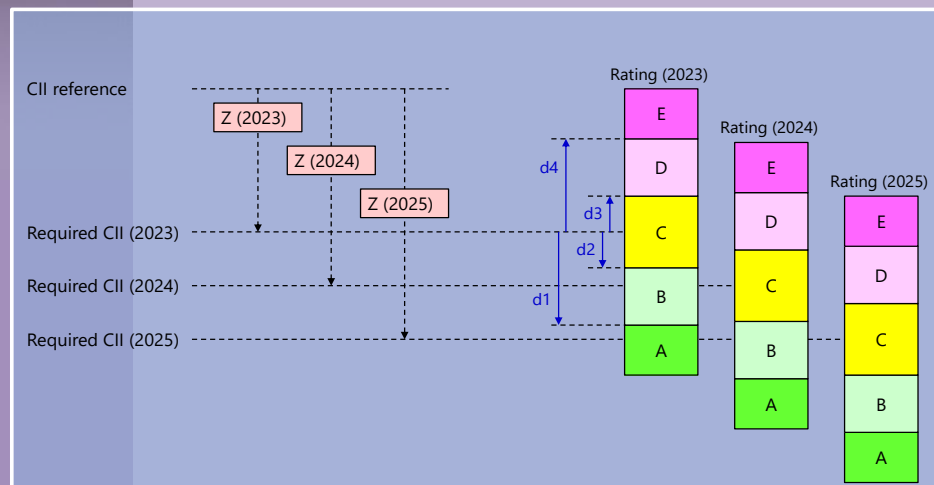
## Featured Contents:

- MARPOL General
- Annex I (Oil)
- Annex II (Noxious Liquid Substances)
- IBC Code (Chemical)
- IGC Code (Gas)
- Annex III (Packaged Harmful Substances)
- Annex IV (Sewage)
- Annex V (Garbage)
- Annex VI (Air Pollution & Energy Efficiency)

## Duration: One day

## Who Should Attend?

Superintendents, ship officers, shipbuilders and repair yard personnel, etc.  
(0-5 years experience)



SOLAS  
(Safety  
Construction),  
ICLL  
(Load Lines),  
TM69  
(Tonnage)

In this course, we will explain what is described in the International Convention for the Safety of Life at Sea (SOLAS) concerning safety construction of ships, subdivision and stability, the International Convention on Load Lines (ICLL) about the loading limit of ships, and the International Convention on Tonnage Measurement that stipulates the volume of ships.

This course will help you gain a systematic knowledge of the requirements required by these conventions.

**Featured Contents:**

- **Outline of SOLAS Convention**
  - Structure of ships
  - Subdivision and stability
- **International Convention on Load Lines (ICLL)**
- **International Convention on Tonnage Measurement**

**Duration: One day**

**Who Should Attend?**

Superintendents, ship officers, shipbuilders and repair yard personnel, etc.  
(0-5 years experience)





# ISM Code, ISPS Code, MLC

In this course, we will explain a basic overview of the ISM Code, ISPS Code, and Maritime Labour Convention (MLC 2006), which directly related to overall ship management that ensure safe ship operations and decent working and living conditions for seafarers through system verification.

This course will help you gain a comprehensive understanding of these codes and a convention and acquire knowledge on responding to non-conformities.

## Featured Contents:

- Application of the requirements of the ISM Code, the ISPS Code, and the MLC 2006
- Overview of requirements, background of the introduction and features of the ISM Code, the ISPS Code, and the MLC 2006

## Duration: One day

## Who Should Attend?

QM managers for ship owners, management companies, ship officers and superintendents, etc.

(0-5 years experience)



# Incident Investigation & Analysis and Risk Management



## Incident Investigation course

Incident investigation and analysis is performed in various fields, including transportation, manufacturing, medicine and more. Some is performed by individual companies while others are performed on a large scale with international cooperation and according to international rules.

The International Safety Management Code (ISM Code) and the Tanker Management and Self Assessment (TMSA) guidelines prepared by the Oil Companies International Marine Forum (OCIMF) require investigation and analysis of incidents as one element of ship safety management. This course describes the procedure and means to investigate and analyze incidents and near-misses related to ship owner or management company operations with these requirements in mind.

### Featured Contents:

- Purpose of incident investigation and analysis
- Review of the capabilities and limitations of each tool and when and where to employ them
- How to apply casual factor and root cause analysis for investigating safety, reliability and quality related incidents
- Case studies (group work)

## Risk Management course

Risk management is applied to a variety of fields including business management, finance, medicine, information security and occupational safety, and the maritime industry is no exception. Risk management is used to develop regulations for ship structures and equipment. In the Tanker Management and Self Assessment guidelines (TMSA) developed by the Oil Companies International Marine Forum (OCIMF), too, risk management is required under ship management techniques. The International Safety Management (ISM) Code describes the establishment of risk control measures as one of the purposes of ship safety management and explains the necessity of risk management.

### Featured Contents:

- Overview of the basic theories and principals of hazard identification and risk assessment
- Describes qualitative and quantitative methodologies
- Review of the capabilities and limitations of each tool and when and where to use them
- FSA (Formal Safety Assessment)
- Overview of TMSA
- Case studies (group work)

**Duration: Two days**

### Who Should Attend?

QM managers for ship owners, management companies, ship officers and superintendents etc. (more than 2 years experience)

# ISM Internal Audits



This course provides general instructions for internal audits of a safety management system and outlines the International Safety Management (ISM) Code for internal auditors. Internal audits are required by the ISM Code (established by the IMO) and Tanker Management and Self-Assessment (TMSA, published by the OCIMF) as one of the essential elements for the proper implementation and continuous improvement of safety management systems. The ISM Code defines safety management systems with the goals of safe ship operation and environmental protection. TMSA provides detailed guidelines on tanker management systems for purposes similar to the above. Effective implementation of SMS internal audits requires not only sufficient competence from the auditor, but understanding of the internal audit by all people concerned. This lecture will help a wide range of people who are involved in ship safety management, including future auditors, deepen their understanding of SMS internal audits.

## Featured Contents:

- Defines safety fundamentals
- Requirements of the ISM Code, Part A and B
- Audit planning, preparation, performance, recording, reporting and follow-up
- Handling of anomalies, non-conformities and corrective actions
- Audit and interview techniques
- Overview of TMSA
- Case studies (group work)

## Duration: Two days

## Who Should Attend?

QM managers for ship owners, management companies, ship officers and superintendents etc. (more than 2 years experience)



# Damage (Hull)

This course offers easy-to-understand explanations of how hull damage occurs as well as how it is dealt with using representative examples of damage to different ship categories. It also includes an introduction to the preparations that classification surveys require.

Taking this course will help you understand the basic concepts necessary for the proper maintenance of hull.

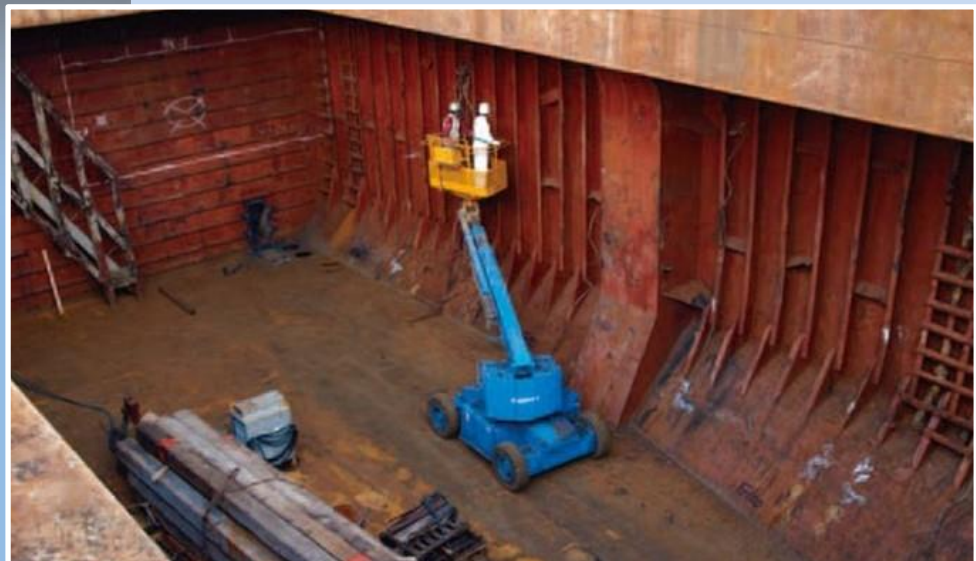
## Featured Contents:

- Recent hull damage statistics
- Actions to be taken when damage is found
- Hull damage mechanisms
- Repair guidance
- Preparation for class surveys

## Duration: One day

## Who Should Attend?

Superintendents, ship officers, shipbuilders and repair yard personnel, etc.  
(0-5 years experience)



# Damage (Machinery)

This course offers easy-to-understand instruction on how damage to machinery and electrical equipment occurs and how it is dealt with, using representative examples of damage to different types of machinery.

Taking this course will help you understand the basic concepts necessary for the proper maintenance of mechanical and electrical equipment.

## Featured Contents:

- Recent machinery damage statistics
- Main diesel engine
- Propulsion shafting
- Aux. diesel engine
- Aux. Boiler
- Others

Fire in engine room / Damage due to alumina / Fire of feeder panel

## Duration: Half a day

## Who Should Attend?

Superintendents, ship officers, shipbuilders and repair yard personnel, etc.  
(0-5 years experience)



# Port State Control (PSC)

This course introduces participants to subjects including the international conventions that relate to Port State Control (PSC), the recent direction of PSC in general, detainment statistics and the primary matters that receive PSC attention.

Taking this course will provide one with knowledge useful for reducing the odds of being detained by PSC.

## Featured Contents:

- What is Port State Control (PSC)
- Statistics on PSC Detentions
- Common Deficiencies
- Measures to reduce detentions – Effective Operation of SMS
- Measures to reduce detentions – Utilization of Information

## Duration: Half a day

## Who Should Attend?

Superintendents, ship officers, shipbuilders and repair yard personnel, etc.  
(0-5 years experience)

