This course provides an overview of the various design and construction-related tests and surveys that a newbuilding undergoes between the vessel’s order and its final delivery. Taking this course will improve your understanding of the preparations necessary for these surveys as well as increasing your awareness of key details that require attention.

**Featured Contents:**
- Outline of survey classification survey during construction
- Acceptance inspection
- Hull structure inspection
  - Confirmation of scantling of members and assembly accuracy
  - Check point during welding
- Inspection before launching
  - Tightness test and structural test
  - Measurement of principal dimensions
  - Markings
- Corrosion prevention
  - Painting, PSPC, Cathodic protection
- Basic information on hull outfitting
  - Rudder, Hatch cover, Piping, Fire fighting system, Closing devices
- Stability experiments

**Duration: One day**

**Who Should Attend?**
Superintendents, shipbuilders and repair yard personnel, etc.
(0~2 years experience)
This course covers the fabrication of steel used for ship construction, including easy-to-understand explanations of such topics as welding techniques, common errors and what inspections entail. Taking this course will provide you with a deeper understanding of materials, welding, non-destructive testing, and both basic and required examinations and inspections.

Featured Contents:

• Outlines
  Materials, Welding and Non-Destructive Tests for Ships
  Steels & Welding Consumables
  Welding Process
  Weld Defects
  Non-Destructive Tests

• Manufacturing processes
  Rolled steels
  Castings, Forgings

• High performance steels
  YP47 steels
  Steels with fatigue crack resistant properties
  Corrosion resistant steels

• Special steels (stainless steels)

• Vertical Inspection for ensuring the quality of hull welds
  Damage examples of ships in service
  Outline of vertical inspection

Duration: One day

Who Should Attend?
Superintendents, shipbuilders’ personnel, steel manufacturers, etc.
(0~2 years experience)
This course serves as 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. Completion of this course should provide a deeper understanding of the interactions and relationships between classification societies and other members of the maritime community.

**Featured Contents:**

- **Classification Societies**
  - History of classification society
  - Activities as Recognized Organization (RO)
  - Roles of classification society
  - Purpose and roles of International Association of Classification Societies (IACS)

- **International Conventions**
  - Purpose and roles of International Maritime Organization (IMO)
  - Major international maritime conventions
    - SOLAS, ICLL, COLREG, Tonnage, MARPOL
    - STCW, AFS, BWM, SRC, MLC

- **Classification surveys & Statutory surveys**

**Duration: One day**

**Who Should Attend?**
Superintendents, ship officers, shipbuilders and repair yard personnel, etc. (0~2 years experience)
This course covers all the inspections of machinery and electrical equipment that take place over a new vessel’s construction; from the order being placed to the completion of construction. It also provides easily understandable explanations of each type of tests and how they are carried out. Taking this course will provide one with a deeper understanding of the preparations required for these inspections and tests as well as specific aspects to pay attention to.

**Featured Contents:**

*< Part 1 Machinery >*
- Outline of Newbuilding Survey
- Surveys at Manufacturers
- Survey at Shipyards
- Inspection of Piping System
- On board Test
- Sea Trial

*< Part 2 Electrical Installation >*
- General
- General specification, Ambient condition
- Protection of enclosure for electric equipment
- Survey at Manufacturer
- Survey at Shipyards

**Duration: One day**

**Who Should Attend?**
Superintendents, shipbuilders personnel, etc. (0~2 years experience)
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 provide one with the knowledge necessary for proper hull maintenance.

**Featured Contents:**
- Recent hull damage statistics
- Actions to be taken when damage is found
  - Damage evaluation
  - Action to be taken by Master / Manager
  - Request for class survey
  - Temporary and Permanent repairs
- Hull damage mechanisms
  - Causes / Types of damage
  - Recent examples of hull damage
  - Class survey check points
  - Bulk Carriers / Double Hull Oil Tankers / Container Carriers / General Cargo Ships / Chemical Tankers / Vehicle Carriers / Chip Carriers / LNG Tankers
- 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)
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. After taking this course, one will understand the basic concepts necessary for the proper maintenance of mechanical and electrical equipment.

**Featured Contents:**
- Recent machinery damage statistics
- **Main diesel engine**
  - Crankshaft / Degraded heavy fuel / Combustion chamber / Connecting rod
  - Crosshead pin / Damage at shop test / Turbocharger
- **Propulsion shafting**
  - Coupling bolts / Propeller shaft / Propeller breakage
  - Other notice for shafting
- **Aux. diesel engine**
  - Connecting rod
- **Aux. Boiler**
  - Internal crack / Furnace Collapse / Exhaust gas economizer
- **Others**
  - Fire in engine room / Damage due to alumina / Fire of feeder panel

**Duration: One day**

**Who Should Attend?**
Superintendents, ship officers, shipbuilders and repair yard personnel, etc. (0~5 years experience)
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)?
  - Scope of PSC
  - Actions to be taken for PSC inspection
  - Recent PSC Developments
- 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)
In addition to an overview of safety equipment (firefighting, lifesaving and navigation), this course also introduces applicable international treaties and examples of failures. Taking this course will provide you with a deeper understanding of inspection requirements and what to watch out for when carrying out equipment maintenance at sea.

**Featured Contents:**
- Contents of SOLAS and COLREG
- Survey Interval & Cargo Ship Safety Equipment Certificates
- Application & Preparation for Surveys
- Examples of deterioration of Safety Equipment:
  - Life saving appliance
  - Navigation lights
  - Fire fighting
- Maintenance and Inspection for Life saving appliances
- Maintenance and Inspection for Fire fighting systems and appliances
- Survey items conducted by service suppliers

**Duration:** Half a day

**Who Should Attend?**
Superintendents, ship officers, shipbuilders and repair yard personnel, etc. (0~5 years experience)
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)
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)