



2012 Training Catalogue

DNV Academy, Korea



Practical training centre for shipbuilding and offshore structures

One of the major blind spots of Korean school system is that it is not easy to obtain applicable knowledge acquired for industries with real practices. Therefore, it is essential to build own competence and skills through practical training after graduating from the school. In other word, as it is difficult for most engineers to directly apply the theories learned from schools to the real design and production at the shipyard, we need separate practical training programs for those engineers.

DNV Academy Korea was first established in 2001 as a unique training centre providing practical trainings for shipbuilding and offshore technology. For last ten years in Korea, approximately 14,000 engineers in shipyards, owners' site teams, and manufacturers have participated in DNV Academy training programs.

We opened a new training facility at Pusan in 2009 to offer more comfortable and competitive training environment for our trainees. We continuously try our best to improve our training quality and our experienced training specialists worldwide are always dedicated to share our knowledge with our customers.

DNV Academy Korea as a training partner has contributed to the development of Korea's maritime industry, and DNV Academy will continue to progress and develop itself aligned with requirements of industry and society.

DNV has a number of developed training courses
The courses are divided into 4 groups:

General Courses

For graduates and new engineers on the specific area.

Design Courses

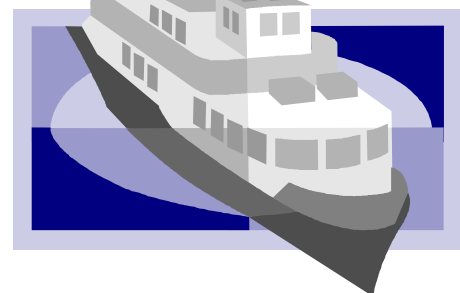
For experienced engineers in general more than two years or engineers attended at the relevant basic courses.

Advanced Courses

For engineers working for special topics with advanced technology or for special ships.

Special Courses

Courses for QC, production engineers, makers, owners, offshore engineers, power plant engineers, and other clients upon request.



For more information

Email : Academy.Korea@dnv.com

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0001 Shipbuilding Introduction 3 DAYS

Contents

- Shipbuilding, Shipping & Operation statistics
- Organization of maritime regime, Rules & Regulations, Class roles, Shipyard position
- Shipbuilding process & Information
- Ships structure & Basic design concept
- Ship's typical damages in operation for each type of ships
- Bulk carriers/Tankers/Containers – structure and details
- Hierarchy of hull structure & Strength
- Steel materials logic
- Navigation & other operational systems
- Information on hull production & inspection
- Certification of equipment & Components

Objective

Upon completion of this course, the participants will understand general information on ships & shipbuilding, class systematic, ship's operation condition and critical points, ships' general systems & function, hull structure & strength concept, and design basic concept

Target Group

All engineers newly employed working in shipping /shipbuilding (Design, production, QC & Supervisors)

Price : KRW 185,000 / day

1000 Stability – Concept & Rules 2 DAYS

Contents

- International rules & Regulations
- Stability basic terms
- Hydrostatics
- Intact stability
- Damage stability calculation (MARPOL, ICLL)
- Probabilistic damage stability (SOLAS)
- Inclining experiment
- Ballast water management
- Tonnage
- Critical cases
- Calculation examples

Objective

Upon completion of this course, the participants will understand basic ship stability, Rules and regulations, intact/damage stability, inclining test & tonnage calculation and calculation method for light weight & LCG, etc.

Target Group

- All engineers working in shipping/shipbuilding (Design, production, QC & Supervisors)
- New designers in basic design departments

Price : KRW 185,000 / day

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1001 Hull Structure & Strength – Concept & Rules 3 DAYS

Contents

- Maritime Regime
 - Class Systematic & its role
 - The importance of ship's operational aspects and critical points in designs
 - Organisation of maritime regime and its effect on shipyard
 - Overview & background of various conventions
- Hull strength basic
 - Shipbuilding trend
 - Ship's operation and typical damages
 - Hierarchy of hull structure & strength
 - Strength criteria & requirements
 - Hull steel materials logic
- Practical design aspects
 - Background of prescriptive rule requirement
 - Welding and detail construction design
 - Inspection & N.D.T.

Objective

Upon completion of this course the participants will understand general information on shipbuilding, Class systematic, ship's operation condition and critical points, hull structure and force flow, strength concept & design points, general hull Rules and the background, etc.

Target Group

- All engineers working in shipping/shipbuilding (Design, production, QC & Supervisors)
- New designers in basic design departments

Price : KRW 185,000 / day

1002 System General & Statutory – Concept & Rules 3 DAYS

Contents

- Basic principles of accommodation design
- Basic principles of machinery arrangement, piping, ventilation and insulation
- Rules and regulations introduced by IMO, ILO and Class
- General review of machinery outfitting, hull outfitting, piping and accommodation outfitting
- Application of international conventions

Objective

Upon completion of this course the participants will understand role of Class, purpose of Rules, regulations and recommendations, ship's function, basic concept of system, etc.

Target Group

- All engineers working in shipping/shipbuilding (Design, production, QC & Supervisors)
- New designers in basic design departments

Price : KRW 185,000 / day

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1003 Electric general - Principles & Rules 2 DAYS

Contents

- Basic concept of electric systems
- Electrical equipment and the function
- General principles and requirements
- Instrumentation and control systems
- Emergency source

Objective

Upon completion of this course the participants will understand what are Rules and regulations, electrical systems in principle, alarm & control system and instrumentation in principle, etc.

Target Group

- All engineers working in shipping/shipbuilding (Design, production, QC & Supervisors)
- New designers in basic design departments

Price : KRW 185,000 / day

2001 Bulk carriers - Hull design 2 DAYS

Contents

- Different type of bulk carriers and their characteristics
- Different type of bulk cargoes and their characteristics
- Bulk carrier operation
- Bulk carrier safety & loading flexibility
- Typical damage of bulk carrier
- Bulk carrier design concept and parameters
- Scantling calculation and strength analysis
- Structural detail & function of bulk carriers
- Theoretical knowledge of beams/loads/strength
- CSR for bulk carriers
- PMA & PSPC

Objective

Upon completion of this course the participants will understand bulk

- Bulk carrier operation, bulk carrier strength & design, bulk carrier rules background, etc.
- Application of rules for practical design
- CSR application for bulk carriers

Target Group

Engineers attended at basic hull course or experienced engineers more than 2 years

Price : KRW 235,000 / day

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2002 Tankers - Hull design 2 DAYS

Contents

- General hull structure of tankers
- Tanker design basis
- Newly introduced CSR rule & rule background
- Loads concepts and application of loads
- Buckling / Fatigue
- Tanker design concept and parameters
- Hull girder strength and H-ULS
- Sloshing and impact
- Finite element analysis and guidance for strength analysis
- Prescriptive rules review & scantling requirements
- Material & welding

Objective

Upon completion of this course the participants will understand tanker structure, tanker strength & design concept, tanker rules background, various loads and loads application on tanker, CSR rule and its application to design, etc.

Target Group

Engineers attended at basic hull course or experienced engineers more than 2 years

Price : KRW 235,000 / day

2003 Container carriers - Hull design 2 DAYS

Contents

- General hull structure of container carriers
- Container carrier statistic and market & design trend
- Class Rules and application
- Guidance for strength analysis
- Tensional strength analysis method
- Operational aspects and design concept
- Container ship evolution & current design trend
- Container securing
- Interaction between hull structure & outfitting
- Critical areas for hull structure
- Typical hull damages

Objective

Upon completion of this course the participants will understand container carrier operation, container carrier strength & design, container carrier rules background, container securing & outfitting and critical areas in design, etc.

Target Group

Engineers attended at basic hull course or experienced engineers more than 2 years

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2004 Machinery Piping & Statutory Design 3 DAYS

Contents

- Design principles
- Ship piping system
- Machinery piping system
- Pipes, pumps, valves, flexible hoses and detachable pipe connections
- Ventilation system
- Fire-fighting system

Objective

Upon completion of this course the participants will understand applicable class rules and international regulations, machinery & system design in general, oil pollution, drainage of compartment, handling of fuel oil, ventilation, etc.

Target Group

Engineers attended at basic hull course or experienced engineers more than 2 years

Price : KRW 235,000 / day

2005 Propulsion Shafting Design 2 DAYS

Contents

- General design for fatigue strength
- Shafting design taking into account the influence factors such as size, surface finish factors, material strength and torsional vibration levels
- Criteria for shaft dimensions based on the Rules
- Bolts connections considering the dynamic characteristics of shafting system
- Brief introduction to shaft alignment

Objective

Upon completion of this course the participants will understand principle of shafting fatigue/lifetime and design, influence of shaft alignment and torsional vibration, DNV involvement and class requirements, etc.

Target Group

Engineers attended at system general course or experienced engineers more than 2 years

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2006 Hull piping & Statutory design 2 DAYS

Contents

- Cargo handling system and cargo vessels
- Applicable Class Rules and international requirements
- Design principles of ballast, bilge, air, sounding, deck fire-fighting, fire integrity, load line and ventilation system in cargo area
- Rule background and the application
- Relevant MARPOL, SOLAS, LL and BC code

Objective

Upon completion of this course the participants will understand ship cargo handling system, applicable class rules & international requirements, design principle of each system, Classification of cargoes, etc.

Target Group

Engineers attended at system general course or experienced engineers more than 2 years

Price : KRW 235,000 / day

2007 Accommodation design 2 DAYS

Contents

- Background of Rules for accommodation and the application
- Relevant regulations of SOLAS and ILO convention
- Arrangement of means of escape
- Ventilation system in accommodation
- Fire insulation/detection/alarm/fight system in accommodation
- General requirements for ship's piping system
- Rules and convention for sanitary and fresh water system

Objective

Upon completion of this course the participants will understand SOLAS 74 & ILO requirements, fire technical considerations, means of escape, details of construction, accommodation comfort, ventilation system, etc.

Target Group

Engineers attended at system general course or experienced engineers more than 2 years

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2008 Electric design 2 DAYS

Contents

- General requirements, class & statutory
- Design principles
- Distribution principles & redundancy
- Emergency source
- Control systems
- Instrumentation
- General installation onboard

Objective

Upon completion of this course the participants will understand applicable Rules & regulations, electrical system in principle, alarm & control system, instrumentation in principle, etc.

Target Group

Engineers attended at electric general course or experienced engineers more than 2 years

Price : KRW 235,000 / day

2010 Safety of navigation I –Equipment 2 DAYS

Contents

- SOLAS Chapter V
- IMO performance standards
- Navigation equipment
- Magnetic Compass, TMHD, THD, Gyro-compass, ROTI, Echo sounder, Speed Log (SDME), LORAN C/Chayka, GPS, GLONASS, DGPS/DGLONASS, Combined GPS/GLONASS, ECDIS, AIS, Radar, Radar reflector, VDR, ARPA, Heading control system (Autopilot), Track control System (TCS), INS, IBS, Sound reception system, Daylight signaling lamp, etc.

Objective

Upon completion of this course the participants will understand safety of navigation, IMO, SOLAS and COLREG, DNV Rules and application, etc.

Target Group

Experienced engineers/designers more than 2 years

Price : KRW 235,000 / day

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2011 Safety of navigation II - Bridge design 2 DAYS

Contents

- IMO Conventions (SOLAS, COLREG 72, STCW95)
- Panama regulations
- ISO 8468 Ship's Bridge Layout, etc.
- DNV Bridge Class Notations
- Bridge configuration
- Field-of-vision
- Workstation arrangement
- Console configuration
- Working environment

Objective

Upon completion of this course the participants will understand safety of navigation, IMO, SOLAS and COLREG, DNV Rules and application, etc.

Target Group

Structural engineers/naval architects with basic knowledge of structural design of ship and/or offshore structures

Price : KRW 235,000 / day

3002-1 Fatigue Assessment I 2 DAYS

Contents

- Fatigue damages
- SN-curves and miner summation
- Fatigue assessment for NAUTICUS (Newbuilding), Classification Notes 30.7
- Introduction to fatigue assessment for PULS-1/PULS-2

Objective

Upon completion of this course the participants will understand fatigue basic, DNV CN for fatigue and the procedure for PULS notations, NAUTICUS software for fatigue strength assessment, etc.

Target Group

Engineers in hull/outfitting department more than 2 year experience

Price : KRW 310,000 / day

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3002-2 Fatigue Assessment II 2 DAYS

Contents

- SN-curves and miner summation
- Summary of Classification Notes 30.7 and PLUS1/PLUS-2
- Introduction to wave load analysis and full stochastic fatigue analysis
- Direct calculation method of fatigue assessment

Objective

Upon completion of this course the participants will understand fatigue basic, DNV CN for fatigue and the procedure for PLUS notations, NAUTICUS software for fatigue strength assessment, direct calculation method etc.

Target Group

Engineers in hull/outfitting department more than 2 year experience

Price : KRW 310,000 / day

3005 Material Technology 2 DAYS

Contents

- Basic requirements to construction materials
- Basic facts about metallic materials
- Phase diagrams
- Steels, carbon manganese, aluminum, stainless steels and others

Objective

Upon completion of this course the participants will understand materials, application to ships, requirements, etc.

Target Group

Engineers in hull/outfitting design department more than 2 year experience

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3006 Noise & Vibration 2 DAYS

Contents

- Concept of noise & vibration
- 1st step, 2nd step and 3rd step analysis
- Measurements and trouble shooting
- Design recommendations to reduce noise & vibration

Objective

Upon completion of this course the participants will understand concept of noise & vibration, approach method, analysis steps, design against noise & vibration, etc.

Target Group

Engineers having basic knowledge in noise & vibration and in FEA

Price : KRW 310,000 / day

3007 LNG – Hull 2 DAYS

Contents

- Rules and regulations
- Strength analysis
- Temperature analysis and materials

Objective

Upon completion of this course the participants will obtain improved understanding of LNG carriers, strength of hull structures, Rules and regulations, material selection for lower temperature cargoes, etc.

Target Group

Engineers having basic knowledge in hull design and gas carriers

Price : KRW 310,000 / day

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3008 LNG – System 2 DAYS

Contents

- LNG cargo handling, systems & operation
- Cargo piping
- Cargo tank safety relief valves
- Fire protection
- Personnel protection equipment
- Electric installations in cargo area
- Instrumentation & cargo equipment

Objective

Upon completion of this course the participants will understand LNG carriers, cargo containment system, Rules and regulations, etc.

Target Group

Engineers having basic knowledge in system design and gas carriers

Price : KRW 310,000 / day

3009 Offshore – Safety Evaluation of Process System 3 DAYS

Contents

- Introduction to offshore processing
- Applicable codes and standards for offshore production plants
- Process Flow Diagram (PFD) and Process and Instrumentation Diagram (P&ID)
- Emergency Shut Down (ESD) and Process Shut Down(PSD) systems
- Flare and depressurising system

Objective

Upon completion of this course the participants will understand the main safety features and safety requirements for typical offshore production plants, principles outlined in internationally recognized design standards for offshore production plants (e.g. API RP 14C), etc.

Target Group

Experienced Designers more than 2 years

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3012 Offshore – Hull General 2 DAYS

Contents

- FPSO Hull design
- DNV offshore standard and recommended practices for offshore ships
- Direct analysis of wave bending moments and shear forces
- FPSO design by DNV Software
- Preliminary section scantlings
- Design of FPSO specific details

Objective

Upon completion of this course the participants will understand structure design of FPSO units from the initial design phase to the detail design phase, etc.

Target Group

Structural engineers/naval architects with basic knowledge of structural design of ship and/or offshore structures

Price : KRW 310,000 / day

3013 Offshore – System General 2 DAYS

Contents

- General introduction to modern offshore technology
- Conversion and subsea systems
- Principles of area classification
- Emergency Shut Down (ESD) Systems
- Fire and Gas (F&G) detection systems
- Fire integrity

Objective

Upon completion of this course the participants will understand the basic principles of modern offshore technology, special features and requirements for a FPSO compared to a conventional tanker, DNV Offshore Standards and applicable recognized international standards, etc.

Target Group

System engineers with basic knowledge of system design of ship and/or offshore structures

Price : KRW 310,000 / day

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3014 LPG – Hull 2 DAYS

Contents

- Basic properties of gas carriers
- LPG carriers – Tank type A and type C
- Rules and regulations
- Design loads
- Material selection for lower temperature cargoes
- Strength of hull structure and cargo tanks
- Critical details

Objective

Upon completion of this course the participants will obtain improved understanding of LPG carriers, strength of hull structures, Rules and regulations, material selection for higher and lower temperature cargoes, etc.

Target Group

Engineers having basic knowledge in hull design and gas carriers

Price : KRW 310,000 / day

3015 LPG – System 2 DAYS

Contents

- Applicable rules & regulations, Type of cargoes
- Damage stability & cargo tank location
- Ship arrangement
- Cargo containment
- Cargo handling systems I & II
- Design of pressure vessel type cargo tanks
- Design of prismatic type cargo tanks

Objective

Upon completion of this course the participants will understand LPG carriers, cargo containment system, Rules and regulations, etc.

Target Group

Engineers having basic knowledge in system design and gas carriers

Price : KRW 310,000 / day

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3016 Ice Mechanics 2 DAYS

Contents

- Physics and mechanics
- Ice in the Ocean
 - Physical properties
- Mechanics of ice
 - Numerical modeling
- Local/global loads, performance
- Global ice loads
 - basic understanding
- Local ice loads (Dynamic action models)
- Effects of reamer
- Field development
- Use of physical modeling
- Seeding and freezing of ice sheet

Objective

The purpose of the course is to give an introduction to ice mechanics with emphasis on design issues and technical aspects related to ships in ice and field development

Target Group

Engineers having basic knowledge in propulsion design, hull design and gas carriers

Price : KRW 310,000 / day

3019 Drillship Hull 2 DAYS

Contents

- Basic principles of drilling vessel design
 - Drilling semi-submersible
 - Drill ship's
 - Self-elevating units
- Rules, Regulations, Classification of drillship
- Hull Girder Capacity (yield, buckling)
- Fatigue Assessment
- Structural design for structural categories (special/primary/secondary)
- Hull interface (moonpool area, substructure)

Objective

Upon completion of this course the participants will understand basic design concept of drillship's hull, differences between standard ship design and drillship design and how to apply the DNV standards for hull design

Target Group

All engineers working in offshore/drillship segment (design, production, QC & supervisors)

Price : KRW 310,000 / day

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3020 Drillship System 2 DAYS

Contents

- The basic principles of modern drilling system technology
- Rules, Regulations and Classification of drillship
- Special features of a drillship
- Drilling systems
- Safety related aspects
- System interfaces
 - Risk analysis

Objective

Upon completion of this course the participants will understand the basic principles of modern drillship technology, special features of drilling units and an overview of production systems, drilling systems, layout and rules & regulations etc.

Target Group

All engineers working in offshore/drillship segment
(design, production, QC & supervisors)

Price : KRW 310,000 / day

3021 FLNG Hull 2 DAYS

Contents

- Basic design concept and design philosophy of FLNG
 - General arrangement and layout
 - Material selection
 - Structural strength
 - Stability
- Rules, Regulations to be applied
- Scope of DNV Classification
- Use of Risk Assessment in FLNG design
 - Collisions
 - Sloshing
 - Stability and Buoyancy hazards

Objective

Upon completion of this course the participants will understand basic design concept of FLNG, strength criteria & requirements and maintenance/inspection philosophies of FLNG

Target Group

All engineers working in LNG FPSO & FSRU segment
(design, production, QC & supervisors)

Price : KRW 310,000 / day

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3022 FLNG System 2 DAYS

Contents

- Basic design concept and design philosophy of FLNG
 - Process descriptions and process flow diagrams
 - Operation/Safety philosophy
- Conceptual level design
 - Safety systems
 - Emergency shutdown
 - Electric systems
 - Mechanical systems
- Rules & Regulations to be applied
- Use of Risk Assessment in FLNG design
 - Loss of well containment for LNG production installations
 - Gas release into confined space
 - Release of toxic on other hazardous substance
 - Loss of mooring, propulsion, station keeping

Objective

Upon completion of this course the participants will understand basic design concept of FLNG's safety, novel aspects and application in LNG transfer, conceptual system design

Target Group

All engineers working in LNG FPSO & FSRU segment (design, production, QC & supervisors)

Price : KRW 310,000 / day

3024 Safe and Sustainable Engineering for Mobile Offshore(Drilling) Units 2 DAYS

Contents

- Safety, Health and the Environment(SHE) in risk management & design application
- Theory, concepts, models, principles for engineering design
- SHE regulations and interpretations
- Acts, frameworks, standards, guidelines
- NORSOK – Introduction and overview on structure, updates, implementation
- Technical Safety and Working Environment
 - regulations, principles, methods
- Exploring an efficient offshore project process for the yard
- Perspectives from owners

Objective

Upon completion of this course, the participants will understand general information on SHE (safety, health and environmental) risk in operational conditions which pertain to design ; theories, concepts, models and principles for design assessments ; a sample of relevant international regulatory information ; Norwegian regulations, standards ; Project process for yard in Norwegian projects

Target Group

Project Managers, Discipline Lead Engineers, Production Managers, Commissioning and Contract Managers shall benefit from this course

Price : KRW 310,000 / day

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4000 Technical Manager 2 DAYS

Contents

- Maritime regime & typical damages
- European culture & cultural awareness
- Key points of hull, system and electric
- Owners' typical concerned points in NB
- Operational feedback
- Free communication
- Information exchange

Objective

Upon completion of this course the participants will be graded up as a technical manager with global knowledge on shipbuilding, technical communication with clients, and preventing serious mistakes, etc.

Target Group

- Engineers participated in the three level DNV Academy courses of General course, Design course and Advanced course
- Experienced senior engineers or technical managers

Price : KRW 185,000 / day

4001 Hull Production 2 DAYS

Contents

- Maritime regime, Class role
- Materials, material protection, material selection
- Typical damages in operation
- Basic hull strength and requirements
- Inspection points on B/C, Tanker and Container carrier

Objective

Upon completing of this course the participants will understand general information on shipbuilding, class systematic, ship's operation condition and critical points, hull structure and strength, Rule requirements, inspection points, etc.

Target Group

- QA/QC engineers, production engineers, and owner's supervisors
- New designers in hull structural design or in outfitting design department

Price : KRW 185,000 / day

For more information

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4002 System & Outfitting Production 2 DAYS

Contents

- General Rules and regulations
- Class roles
- Definitions of machinery outfitting, hull outfitting, piping, accommodation outfitting
- Operational experience and typical damages
- Basic principles of machinery arrangement, piping, ventilation and insulation
- Inspection points of outfitting

Objective

Upon completion of this course the participants will understand role of Class, purpose of Rules, regulations and recommendations, ship's function, basic concept of system, inspection points, etc.

Target Group

- QA/QC engineers, production engineers, and owner's supervisors
- New designers in hull structural design or in outfitting design department

Price : KRW 185,000 / day

4101 Welding in Structure & Piping 2 DAYS

Contents

- p-WPS
 - Welding metallurgy
 - Rule requirements
- Welding Procedure Specification
 - Essential Valuable (ASME,AWS,ISO,NORSOK &DNV)
- Welder qualification
- Rule interpretation

Objective

Upon completion of this course the participants will understand general information on general requirements of code and DNV rule, Welder qualification procedure and how to establish WPS

Target Group

Welding Engineers or QC person who working for manufacturers supplying structures or steel products manufacturers

Price : KRW 185,000 / day

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4102 Piping & Outfitting, Maker 2 DAYS

Contents

- Maritime regime, Class role
- General requirement for piping & outfitting
- Materials
- Pipe, pump, valve flexible hose and detachable pipe connections, etc.
- Manufacture, workmanship, inspection and testing
- Operational experience and information exchange

Objective

Upon completion of this course the participants will understand general information on shipbuilding, Class role and relevant Rule requirement, documentation requirement and inspection points, etc.

Target Group

Engineers working for manufacturers producing piping and outfitting to ship building yard

Price : KRW 185,000 / day

4103 Casting Technology - Welding, NDT 2 DAYS

Contents

- Basic of metallurgy
- Steel making technologies
- Heat treatment technologies
- Casting making
- Mechanical Testing
- Welding application in Casting materials
- Welder qualification
- Non-destructive testing, UT, MT, PT
- Approval of manufacturer

Objective

Upon completion of this course the participants will understand general information on Welding & NDT, updated technology in Welding & NDT and how to improve productivity

Target Group

All engineers who are involved in the service areas of welding & NDT

Price : KRW 185,000 / day

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4104 Forging Technology - Welding, NDT 2 DAYS

Contents

- Basic of metallurgy
- Steel making technologies
- Heat treatment technologies
- Forging making
- Mechanical Testing
- Welding application in Forging materials
- Welder qualification
- Non-destructive testing, UT, MT, PT
- Approval of manufacturer

Objective

Upon completion of this course the participants will understand general requirements for materials, manufacture, inspection, certification and testing procedures

Target Group

All engineers working for manufacturers supplying forging and casting to the shipyards

Price : KRW 185,000 / day

4105 NDT Concept for Hull & Offshore 2 DAYS

Contents

- Hull & Offshore structure in relation to NDT
- Limitation & Principle of Non-destructive testing (RT, UT, MT, PT)
- NDT Requirements of Hull structure and forging & casting components
- NDT Requirements of Offshore structure and components
- Explanation for international Standard vs. DNV standard requirements

Objective

Upon completion of this course the participants will understand general knowledge on how to improve productivity with regard to NDT and will obtain practical experiences through understanding of each component

Target Group

All engineers who are involved in the service areas of NDT

Price : KRW 310,000 / day

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4106 Ice Strengthening of Propulsion Machinery 2 DAYS

Contents

- General Introduction to FSICR (Finnish-Swedish Ice Class Rules) & Polar Class
- Propeller Blades Design
- Propeller Hub and Pitch Mechanism
- Ice Impact Simulation Calculations
- Propulsion Shaft Design against Fatigue
- Design of Shaft Line Components

Objective

Upon completion of this course the participants will obtain a technical design guidance for propulsion system according to the Ice class rules & Polar class rules

Target Group

All engineers having basic knowledge in propulsion design

Price : KRW 310,000 / day

4200 Coating Technology & IMO PSPC 2 DAYS

Contents

- Paint technology
- Surface preparation
- Paint application
- Paint failures
- Inspection methods
- Amended SOLAS Regulation
- IMO PSPC
- IACS interpretation of PSPC for CSR, PR34
- Verification-Initial review
- Survey during construction and final review

Objective

Upon completion of this course the participants will understand basic painting technology, the practical consequences of PSPC and understanding how class interpret and will handle the PSPC requirements

Target Group

- All engineers working in shipping/shipbuilding (Design, production, outfitting, QC & Supervisors) Owners' Site teams, Project Managers
- PSPC assistant inspector

Price : KRW 185,000 / day

For more information

Email : Academy.Korea@dnv.com

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6001 Fuel Management 2.5 DAYS

Contents

- Crude oil qualities and refining processes
- Fuel oil properties and performance in diesel engines
- International fuel oil standards
- Fuel sample Analysis
- Sampling procedures
- Quality throughout the fuel handling system
- Fuel oil cleaning system
- Emission and environmental aspects –
Marpol Annex VI

Objective

Upon completion of this 2.5 day's course participants will have a thorough understanding of all aspects of Bunker Fuel Oil Quality Management so that they can implement Safe, Efficient and Environmental practices

Target Group

- Ship Owners & Managers
- Power Plant Engineers & Managers
- Fuel Suppliers & Purchasers
- Marine Engineers & Officer (Senior & Junior)
- Technical Superintendents & Managers
- Insurance Companies

Price : USD 1,700

6002-1 Norsok Standard - Strength & Material 3 DAYS

Contents

- Basic, Melting and Rolling
- M-001 Material Selection
- M-101 Structural Steel Fabrication
- M-120 Material Data
- M-122 Cast Structural Steel
- M-123 Forged Structural Steel
- M-601 Welding and Inspection of piping
- M-630 Material Data Sheets for piping
- Standards in Norwegian Regulations
- N-001 Integrity of Offshore Structures
- N-003 Actions and Action Effects
- N-004 Design of Steel Structures
- N-005 Condition Monitoring of Loadbearing Structures
- Global Structural Analysis
- Hydrodynamic Analysis

Objective

Upon completion of this course the participants will understand the background of the Norsok Regime and how the standards are developed and maintained

Target Group

All engineers working in offshore plant project

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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**6002-2 NORSOK Standard
- Safety/Working Environment/Process
3 DAYS**

Contents

- Introduction of S-001, S-002, S-003, S-005, S-006, S-011, S-012
- S-002 Working Environment
- S-012 Health, Safety and Environment (HSE) in construction – related activities
- Rules and Regulations – PSA Regulations
- P-001 Process Design
- P-100 Process Systems

Objective

Upon completion of this course the participants will understand the background of the NORSOK Regime and how the standards are developed and maintained

Target Group

All engineers working in offshore plant project

Price : KRW 310,000 / day

**6003 Subsea Production Systems
3 DAYS**

Contents

- Standards and rules of subsea production system
- Drilling, Well Head, XT concepts
- Workover system
- Tie-In and Umbrical
- ROV intervention system and Tooling
- Template and Manifold
- Production control system
- Valves
- FAT PVT SIT Testing
- Anodes Corrosion
- Subsea processing

Objective

Upon completion of this course the participants will understand general information on subsea production system including drilling, well head, XT, umbrical, ROV, production control system, subsea processing and an overview of rules and standards etc.

Target Group

Project Manager, Discipline Lead Engineers, Production Manager, Commissioning Manager shall benefit from this course

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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6004 LNG Liquefaction System 2 DAYS

Contents

- Basic LNG technologies
- Feed pretreatment
 - Acid gas removal
 - Dehydration / Mercury removal
- LNG liquefaction cycle
 - Cascade cycle
 - Mixed refrigerant cycle (single MR, C3MR and etc)
 - N2 expander cycle
- Evaluation of liquefaction process for FLNG
- Cryogenic equipment for LNG liquefaction
 - Transfer system
 - Compressor / Expander / Heat exchanger

Objective

Upon completion of this course the participants will understand general information on LNG liquefaction system including feed treatment system, various liquefaction cycles and FLNG applications etc.

Target Group

Project Manager, Discipline Lead Engineers, Production Manager, Commissioning Manager shall benefit from this course

Price : KRW 310,000 / day

6005 Wave Load Analysis for Ship 3 DAYS

Contents

- Introduction of basis for hydrodynamics
- Overview of ship motion in waves
- Ship motion analysis using HydroD
- Estimation of roll damping using WAVESHIP
- Overview of statistics for sea waves
- Statistical post-processing using POSTRESP

Objective

Upon completion of this course the participants will understand hydrodynamic basis, ship motion in wave, etc. and will perform ship motions analysis, statistical post-processing using DNV SESAM package

Target Group

Engineers having some knowledge in hydrodynamic analysis

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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6006 LNG Essential 2 DAYS

Contents

- LNG boom
- LNG chain overview
- LNG facts
- Introduction to liquefaction
- Liquefaction processes
- Storage and transfer
- Transportation
- Receiving terminals
- Floating LNG
- Regulations, verification schemes and class aspects
- DNV LNG services
- Trends and development projects

Objective

Upon completion of this course the participants will understand general information on LNG and the LNG value chain

Target Group

All engineers working in LNG projects and managers and marketing personnel who need to present and profile LNG capabilities

Price : KRW 310,000 / day

6007 Arctic Offshore Structures : SHE Standards and Winterization

2 DAYS

Contents

- Introduction: Managing risk in Arctic offshore activities
- ISO 19906 - Arctic Offshore Structures
- Barents 2020 project: Assessing SHE standards for offshore activities in the Arctic
- Rules and regulations for Arctic offshore activities
- Conclusion: Applying standards for designing offshore units for the Arctic
- Challenges of cold climate operations: freezing and icing
- Winterization principles and rules for ships
- Winterization principles and rules for offshore structures
- Future developments in winterization solutions and rules

Objective

Upon completion of this course the participants will understand current developments in SHE standards and rules for Arctic offshore installations, and principles for winterizing structures to make them suitable for Arctic climates

Target Group

Engineers having basic knowledge in propulsion design, hull design and gas carriers

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

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6008 UK HSE - Safety Legislation Awareness 2 DAYS

Contents

- How and Why UK Offshore Safety Legislation has developed
- Overview – Which Documents Make-up UK Legislation
- Meaning and Requirement of Legislation
- European Directives – Focus on PED and ATEX
- Interfaces Between Legislation and Classification
- The Role of the HSE
- Verification – Performance Standards and Verification Schemes

Objective

Upon completion of this course the participants will understand an overview of the safety legislation applicable to offshore assets in the UK, the regulatory framework, and what it means to contractors

Target Group

Any contractor involved in projects for offshore assets to operate in UK waters – designers, consultants, vendors, fabricators

Price : KRW 310,000 / day

6009 Integrated Software Dependent Systems (ISDS) 2 DAYS

Contents

- Motivation for ISDS
- What is software?
- ISDS structure and organization
- Relationship to other rules/standards
- Requirements for project roles
- Application to different software types
- Process assessments and audits
- Evidence of compliance
- ISDS project timeline

Objective

Upon completion of this course the participants will understand the concepts and requirements of DNV OS D-203, Integrated Software Dependent Systems

Target Group

Managers and engineers involved in offshore vessels and special ships employing substantial software-dependent systems

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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6010 System Integration for ISDS 3 DAYS

Contents

- Basic terms and concepts
- Systems integration in OS D-203
- Relationship to other rules/standards
- Operational scenarios
- Functional design and architecture
- Interface assurance
- Evidence of compliance
- Integration testing
- Engineering review techniques
- Reliability, availability, and maintainability

Objective

Upon completion of this course the participants will understand the concepts of system integration as defined in DNV OS D-203, Integrated Software Dependent Systems, as well as gain an introduction to basic system integration methods

Target Group

Managers and engineers involved in offshore vessels and special ships employing substantial software-dependent systems

Price : KRW 310,000 / day

6011 Dynamic Positioning System 3 DAYS

Contents

- DP system in general
- Design features - Interpretation of class rules
- ERN and FMEA – concepts and appreciation
- DP – Functionality, redundancy and failure response testing
- Survey requirements in terms of class rules

Objective

Upon completion of this course the participants will understand the design features, class rules related to DP system, Operational Challenges and Survey / Inspection requirements

Target Group

All engineers with experience of general ship systems and the fields of instrumentation, automation and electrical engineering

Price : KRW 310,000 / day

For more information

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6012 Pipeline Overview 2 DAYS

Contents

- Concept Development
- Safety/Risk Aspects
- Flow Assurance
- Safety and Risk Aspects
- Flow Assurance
- Line Pipe
- Inspection At Pipe Mills & Coating Yards
- Welding
- NDT Methods & Principles
- Installation
- Tie in and Seabed Intervention
- Commissioning
- Operation

Objective

Upon completion of this course the participants will get an overview of pipeline applications, ranging from transport of un-processed hydrocarbons from subsea wells to platforms via trunk lines for oil/gas, and further to distribution networks that is bringing gas to consumers and industrial users

Target Group

Professionals that are involved in pipelines activities and engineers that want to get a good foundation for pipeline design and other specialist courses

Price : KRW 310,000 / day

6013 Pipeline Design 3 DAYS

Contents

- Design Flow & Regulations
- Hydraulics
- Safety Evaluations
- Material Selection & Preliminary Wall Thickness Design
- System Layout / Loading Scenarios
- LRFD Design
- Links between Material & Design
- Load Effects including pressure
- Pressure Containment
- Local Buckling & Collapse
- Pipe-Soil Interaction
- Global Buckling / Meteocean Data
- Fatigue – Free Spans
- On Bottom Stability
- Trawling
- CP Design
- Engineering Critical Analysis (ECA)
- Subsea Tie In
- Installation Analysis

Objective

Upon completion of this course the participants will understand the design philosophy of the DNV-OS-F101 pipeline standard, simple wall thickness design, and an overview of relevant failure modes for pipeline design

Target Group

Design engineers and engineers working with design related subjects, who need a more detailed knowledge of standard pipeline design and its tasks

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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6014 Jack – Up_Hull 2 DAYS

Contents

- Jack-up drilling unit in general
- DNV rules and offshore standards related to Jack-up hull
- Key components of Jack-up
 - Hull
 - Legs
 - Leg-hull connection
 - Foundation system
- Structural design
 - Global strength analysis
 - Accidental conditions
 - ULS
 - Fatigue

Objective

Upon completion of this course the participants will understand the design features, class rules and offshore standards related to hull and structure of Jack -up drilling unit

Target Group

All engineers with experience of general offshore structure and offshore drilling units

Price : KRW 310,000 / day

6015 Jack – Up_System 2 DAYS

Contents

- Jack-up drilling unit in general
- DNV rules and offshore standards related to Jack-up systems
- Key components of Jack-up drilling system
 - Hoisting, rotation and pipe handling system
 - Marine riser
 - BOP
 - Heave compensation
 - Well testing

Objective

Upon completion of this course the participants will understand the design features, class rules and offshore standards related to Jack -up drilling system

Target Group

All engineers with experience of general offshore and drilling system

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

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6016 FSRU 2 DAYS

Contents

- LNG FSRU unit in general
- DNV rules and offshore standards related to LNG FSRU
- Structure design
 - Topside structure
 - Fatigue / Corrosion
 - Guidance on analysis
- Key technologies of LNG FSRU
 - Cargo containment system
 - Regasification plant
 - LNG transfer system
 - Position mooring

Objective

Upon completion of this course the participants will understand the design features, class rules and offshore standards related to LNG FSRU

Target Group

All engineers with experience of LNG carrier, LNG process and general offshore system

Price : KRW 310,000 / day

6017 MOU Drill 2 DAYS

Contents

- Offshore drilling unit in general
- DNV rules and offshore standards related to mobile offshore drilling units
- Basic drilling technologies
- Drilling systems and equipment
 - Hoisting, rotation and pipe handling system
 - Marine riser
 - BOP
 - Heave compensation
- Drilling structures
- Well control systems

Objective

Upon completion of this course the participants will understand the design features, class rules and offshore standards related to offshore drilling units

Target Group

All engineers with experience of general offshore system and drilling unit

Price : KRW 310,000 / day

For more information

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6018 Fixed Platforms 2 DAYS

Contents

- Fixed platform in general
- DNV rules and offshore standards related to fixed platform
- Topside system and equipment
 - Oil and gas processing
 - Safety system
- Structure design
 - Topside structure
 - Jacket and substructure
 - Foundation
- Structure analysis
 - Fatigue analysis
 - Ship impact analysis
 - Load out analysis

Objective

Upon completion of this course the participants will understand the design features, class rules and offshore standards related to fixed platforms

Target Group

All engineers with experience of general offshore structure and system

Price : KRW 310,000 / day

6019 Riser & Umbilicals – Technology Overview 2 DAYS

Contents

- Introduction to riser & umbilical Technology
- System Overview
 - Compliant riser systems
 - Top tensioned riser systems
 - Hybrid riser systems
- Flexible pipe technology
- Umbilical Technology
- Drilling and C/WO riser technology

Objective

Upon completion of this course the participants will understand a broad overview of the essential elements involved in riser and umbilical design

Target Group

All professionals who are involved in riser and umbilical activities, and engineers who want to get a good foundation in riser and umbilical design

Price : KRW 310,000 / day

For more information

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6020 Modern Energy Technology (Offshore & Onshore) 3 DAYS

Contents

- Modern oil and gas technology within reservoir engineering, exploration drilling, production and decommissioning
- Main topside processes, pipelines, subsea systems, deep water technology
- Main processes involved in downstream processing of oil and gas
- Main aspects of LNG technology, both liquefaction and regasification
- Latest developments within cleaner energy technology

Objective

Upon completion of this course the participants will understand the major technical areas in offshore and onshore oil and gas production, clean energy technology, LNG technology, refinery technology

Target Group

Technical practitioners within offshore classification, offshore and onshore verification and consulting, and those engaged in clean energy project

Price : KRW 310,000 / day

SA-01 Phast Introduction 2 DAYS

Contents

All areas of consequence modelling within the software, including discharge, dispersion, pool formation and evaporation, fires, explosions and toxic effects

Objective

Upon completion of this course, participants will understand and be able to use the theoretical and practical aspects of Phast. They will be able to create a range of scenarios from scratch, modelling the effects of releases of hazardous material from initial discharge, through dispersion to final flammable and toxic effects. They will also be able to review and understand results and view these in tabular and graphical form and on maps in order to assess the effects of hazardous events and mitigate their consequences

Target Group

Those who need to carry out consequence modelling calculations in the process industries including regulators and legislators, insurance companies, engineering contractors and consultants, or those who need to understand the output of a consequence model built in Phast

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

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SA-02 Phast Risk Introduction 2 DAYS

Contents

All areas of risk modeling within the software including assessment of the impact of hazardous releases on the human population, taking account of probabilistic meteorological data (wind-roses), event frequencies, ignition probabilities, and location of population areas

Objective

Upon completion of this course, participants will understand and be able to use the theoretical and practical aspects of Phast Risk. Starting from the release case scenario models developed during the Introduction to Phast course, participants will use these to develop a simple QRA example. Participants will learn to use the extended functionality provided by Phast Risk, including population and ignition source definition on a map, and will also learn about the additional reporting capabilities provided in Phast Risk such as risk contours, F/N curves and risk ranking reports

Target Group

Those who need to carry out QRA calculations in the process industries including regulators and legislators, insurance companies, engineering contractors and consultants, or those who need to understand the output of a QRA model built in Phast Risk

Price : KRW 310,000 / day

SA-03 Maros 2 DAYS

Contents

This course provide extensive guidance on how to use Maros to perform a range of analyses from a basic Reliability Availability and Maintainability (RAM) study to a more comprehensive plant-wide lifecycle performance forecasting analysis

Objective

The aim of this course is to explain the dynamic simulation concept adopted in Maros and to review the main software features & functionality. During the course, participants will be required to practice and apply their newly acquired knowledge of the software through extensive hands-on tutorials. Upon completion of this course participants should be able to scope, prepare for, run a performance forecasting analysis and produce typical outputs

Target Group

Those who need to carry out or understand the output of RAM analysis and Asset Evaluation & Optimization Studies in the Upstream sector of the oil and gas industry

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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NA-03 Nauticus Hull Rule Check – CSR Tank 2 DAYS

Contents

- Description of ship design parameters
- Cross-section modeling and analysis
- Modeling and analysis of transverse bulkheads
- Simplified fatigue and buckling
- Calculation of Local and Primary Support Members, including beam analysis
- Longitudinal strength calculations
- Calculation of structural details and welding

Objective

Upon completion of this course the participants will be able to carry out a strength analysis according to the prescriptive rules for CSR Tank by means of the Nauticus Hull tools Section Scantlings, PULS, 3D Beam and RuleCheckXL

Target Group

Engineers in hull/outfitting department

Price : KRW 310,000 / day

NA-04 Nauticus Hull Rule Check – CSR Bulk 2 DAYS

Contents

- Description of ship design parameters
- Cross-section modeling and analysis
- Modeling and analysis of transverse bulkheads
- Simplified fatigue and buckling
- Calculation of Local and Primary Support Members, including beam analysis
- Longitudinal strength calculations
- Calculation of structural details and welding

Objective

Upon completion of this course the participants will be able to carry out a strength analysis according to the prescriptive rules for CSR bulk by means of the Nauticus Hull tools Section Scantlings, PULS, 3D Beam and RuleCheckXL

Target Group

Engineers in hull/outfitting department

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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**NA-06 Nauticus Hull Cargo Hold FE Analysis
– CSR Tank
3 DAYS**

Contents

- Extruding cross sections from Section Scantling
- Using GeniE to create and mesh the cargo hold area
- Applying loads, corrosion additions and boundary conditions according to the CSR Tank rules
- Analyses and post processing with Sestra and Xtract
- Yield and buckling strength checks with PULS

Objective

Upon completion of this course the participants will be able to use Nauticus Hull and GeniE for cargo hold modeling and analyses of buckling and stress levels according to the CSR Tank rules

Target Group

Engineers in hull/outfitting department more than 2 year experience

Price : KRW 310,000 / day

**NA-07 Nauticus Hull Cargo Hold FE Analysis
– CSR Bulk
3 DAYS**

Contents

- Extruding cross sections from Section Scantling
- Using GeniE to create and mesh the cargo hold area
- Applying loads, corrosion additions and boundary conditions according to the CSR Bulk rules
- Yield, buckling and fatigue checks according to the CSR Bulk rules
- Analyses and post processing with Sestra and Xtract

Objective

Upon completion of this course the participants will be able to use Nauticus Hull and GeniE for cargo hold modeling and analyses of buckling, fatigue and stress levels according to the CSR Bulk rules

Target Group

Engineers in hull/outfitting department more than 2 year experience

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

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NA-11 Nauticus Shaft Alignment Advanced 3 DAYS

Contents

- Use of Nauticus Shaft Alignment intended for shaft alignment in direct coupled or geared propulsion systems
- Use of Nauticus Torsional Vibration intended for steady-state torsional vibration analysis in direct coupled or geared propulsion systems

Objective

Upon completion of this course the participants will be able to use Nauticus Shaft Alignment and Nauticus Torsional Vibration effectively for design, verification and troubleshooting (“reverse engineering”) and to optimize alignment

Target Group

Naval architects, designers, ship yards and approval engineers with no or limited experience using Nauticus Machinery

Price : KRW 310,000 / day

SE-04 Concept based FE modelling of Shell Structures 3 DAYS

Contents

- Introduction to Sesam focusing on the concept modeling, structural analysis and results presentation features of GeniE
- Linear static and dynamic analysis using Sestra
- General results processing using Xtract
- Introduction to sub-modeling analysis using Submod

Objective

Upon completion of this course the participants will know how to use the concept modeling technique of GeniE to create finite element (FE) models, analyses them in Sestra, and do general results presentations in Xtract

Target Group

Engineers performing design engineering tasks of fixed and floating offshore structures built up of beams, plates and shells

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

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SE-05 Hydrostatic Analysis of Offshore Floaters using HydroD
1 DAY

Contents

- Learn how to create different loading conditions by filling compartments, perform hydrostatic analysis, assess key decision factors and perform stability code checks

Objective

Upon completion of this course the participants will be able to do the hydrostatic analysis and stability checking of floating structures based on relevant code check standards

Target Group

Naval architects involved in conceptual studies as well as detailed engineering of offshore floating structures

Price : KRW 310,000 / day

SE-06 Hydrodynamic Analysis of Offshore Floaters - Frequency Domain using HydroD/Wadam
2 DAYS

Contents

- Global hydrodynamic response analysis
- Hydrodynamic analysis, short and long term statistics as well as transfer of wave loads to structural analysis
- HydroD supported by Wadam, Postresp and Xtract

Objective

Upon completion of this course the participants will be able to do the wave load analysis of offshore floaters based on the frequency domain methodology

Target Group

Naval architects involved in conceptual studies as well as detailed engineering of any offshore floating structure

Price : KRW 310,000 / day

For more information

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**SE-07 Hydrodynamic Analysis of Offshore Floaters
- Time Domain using HydroD/Wasim
2 DAYS**

Contents

- Linear and non-linear hydrodynamic analysis
- Short and long term statistics as well as load transfer of hydrodynamic results to structural analysis
- HydroD supported by Wasim, Postresp and Xtract

Objective

Upon completion of this course the participants will be able to do the wave load analysis of offshore floaters bases on time domain methodology

Target Group

Naval architects involved in conceptual studies as well as detailed engineering of any offshore floating structure

Price : KRW 310,000 / day

**SE-08 Topside Design using GeniE
1 DAY**

Contents

- Concept modeling for the topside module
- Linear static and dynamic analysis using Sestra
- General results processing using Xtract
- Code checking for beam structure

Objective

Upon completion of this course the participants will be able to do the multiple (alternative) analyses, beam code checking and re-design of topside structures

Target Group

Structural engineers performing design engineering tasks of typically topsides and modules

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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SE-09 Jacket Design using GeniE & Wajac 2 DAYS

Contents

- Concept modeling for the jacket structure
- Linear static analysis in Sestra
- Computation of environmental loads in Wajac
- Non-linear pile-soil analysis in Splice
- Code checking of beams and tubular joints

Objective

Upon completion of this course the participants will be able to do the analysis of jackets including the environment (hydrodynamic environment and pile-soil foundation)

Target Group

Structural engineers performing design engineering tasks of jackets and jack-ups

Price : KRW 310,000 / day

SE-11 Wind Induced Fatigue using Framework 1 DAY

Contents

- Concept modeling using GeniE
- Computation of static wind loads in Wajac
- Linear static analysis in Sestra
- Vortex shedding induced fatigue analysis in Framework

Objective

Upon completion of this course the participants will be able to the analysis for gust wind and vortex shedding induced fatigue analysis of beam structures

Target Group

Structural engineers performing wind fatigue analysis of topside structures

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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SE-10 Progressive Collapse Analysis using Usfos 3 DAYS

Contents

- Learn how to import models created by GeniE into Usfos
- Non-linear data generation in Usfos
- Plastic limit state analysis of jackets subjected to accidental loads (ship collision, dropped objects, fire and explosion) and extreme environmental loads (wave, wind and current)

Objective

Upon completion of this course the participants will be able to do the analysis for ultimate strength and progressive collapse analysis of steel space frame structures using Usfos

Target Group

Structural engineers performing ultimate strength, accidental and life time extension analysis of jackets

Price : KRW 310,000 / day

SE-12 Installation Analysis of Jackets using Installjac 2 DAYS

Contents

- Launching and upending analysis based on Installjac
- Learn how to do launching and upending analysis
- How to create loads for given time steps for use in a structural analysis

Objective

Upon completion of this course the participants will be able to do the installation analysis of jacket structures

Target Group

Hydrodynamic and structural engineers assessing jacket installations

Price : KRW 310,000 / day

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

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SE-18 Coupled Motion Analysis & Riser Design of Offshore Floating Installations using DeepC 3 DAYS

Contents

- Concept modeling of riser & mooring system and vessels
- Environmental load modeling
- Coupled analysis, set up and execution
- The Seamless interaction with HydroD, Simo and Riflex
- Static configuration of vessel and mooring system
- Post processing of time series results
- Fatigue analysis of lines ULS code checking of steel risers

Objective

Upon completion of this course the participants will be able to the DeepC tool for carrying out both coupled floater motion analysis of individual lines in time domain. Modelling of the slender structure, set-up and execution of the analysis, as well as postprocessing

Target Group

Hydrodynamic and structural engineers working with design of floating offshore structures

Price : KRW 310,000 / day

SE-20 Mooring Lines Analysis using Mimosa 2 DAYS

Contents

- Modeling of vessel data and mooring lines
- Environmental load modeling
- Static and dynamic motion response analysis
- Transient motion analysis
- Dynamic positioning with thrusters
- Interaction with Sesam suite of programs (HydroD/Wadam)
- Statistical postprocessing of results

Objective

Upon completion of this course the participants will be able to do the frequency domain analysis of mooring lines

Target Group

Naval architects/structural engineers involved in design of mooring lines

Price : KRW 310,000 / day



**SE-21 Simulation of Marine Operations
using Simo
3 DAYS**

Contents

- Flexible modelling of multibody systems
- Environmental loading due to wind, waves and current
- Non-linear time domain simulation
- Passive and active control forces
- Interaction with Sesam suite of programs (HydroD/Wadam)
- Interactive or batch simulation, prepared for real time

Objective

Upon completion of this course the participants will be able to use Simo tool for simulation of marine operations

Target Group

Naval architects involved with analysis of marine operations

Price : KRW 310,000 / day

**5104 Train the Trainer – new method
for high impact
3 DAYS**

This course allows you to redesign and practice delivering any workshop, seminar, course or training package using techniques, tools and a set of principles in order for learning to stick

Objective

Upon completion participants will:

- Know the difference between learning and training
- Know how to meet the different learning styles of their participants
- Know methods of evaluating training
- Be able to design and deliver training that helps their participants learn faster, retain more and transfer new knowledge and skills to the workplace
- Be able to design and deliver enjoyable training experiences
- Have an extended toolbox of training methods, templates and a set of pedagogical principles in order for learning to stick

Target Group

- Lecturers and group leaders who are hoping to improve their training skills
- Surveyors, engineers and admin staff who are preparing to deliver a course in the future
- For people who would like to develop more effective training techniques and methods
- Beneficial course for 'trainers to be'

For more information

Email : Academy.Korea@dnv.com

Tel: +82 51 610 7733 / FAX: +82 51 611 4038

www.dnv.com



5100 Intercultural Communication 2 DAYS

This course gives an insight into cross-cultural communication skills and provides techniques for improving and consolidating working relationships across cultures

Objective

Upon completion participants will :

- Better understand their own culture in context with others Better understand value systems of other cultures and how they affect the working environment
- Select appropriate cultural criteria in order to measure cultural gaps between their own business culture and their counterpart's
- Predict and diagnose a potentially hazardous cross-cultural situation and apply corrective measures to avoid "culture clash"
- Communicate in a way that makes cultural "sense" to the culture of their overseas counterpart, thus enhancing co-operation and a common understanding of each other's work goals and visions
- Apply appropriate strategies in order to more efficiently manage relationships with colleagues/clients from other cultures

Target Group

- Owner's superintendents, Shipyard's engineers who contact foreign ship owners and Class surveyors
- Shipyard's managers
- Expatriates who are dispatched in Korea
- Employees who have frequent contact with foreign customers/co-workers

5101 Communication Skill 2 DAYS

This course will help improve communication skills for surveyors and create added value to what the surveyors offer to their customers

Objective

Upon completion participants will:

- Know how to be more assertive without being aggressive Be able to communicate in a way which is clear and leaves no room for misinterpretation
- Know how to use a range of communication techniques to influence customer perception of the surveyors
- Know how to make use of communication techniques that apply positive incentive and pressure on others
- Learn how to get vessel personnel involved in solving technical problems rather than simply "policing" them and "directing" them on how to fix NCs
- Learn basic negotiation principles
- Understand the basic psychology of negotiation
- Understand how communication style and behavioural style differs from culture to culture

Target Group

- Suitable and recommended for everyone who wants to further improve his/her communication skills, especially at work place
- For those who would like to learn more effective communication skill while avoiding misunderstanding that may come from a 'communication barrier'

For more information

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5102 The Art of Presentation I 2 DAYS

The course will help you improve your presentation techniques so that your messages are clear and concise while having a strong impact on your audience. It will also help reduce aversion towards public speaking

Objective

Upon completion participants will be able to:

- Plan a professional presentation in a short period of time Adjust the content strategically to cater to the needs of different audiences
- Add variation to the presentation Improve the style of presentation techniques based on feedback from the audience
- Prior to the course a 5 minute presentation needs to be prepared. More information about this will be distributed by Global Training Support

Target Group

- People at any level who would like to learn how to deliver a quality presentation
- Presenters who are looking for useful tips on improving general presentation skills and methods
- Beneficial course for 'presenters to be'

5103 The Art of Presentation II 2 DAYS

This is an in-depth course with a hands-on focus on presentation skills. It combines advanced principles and theory modules with individual training with a view to enabling participants to deliver highly engaging and memorable presentations

Objective

In this course you will learn how to:

- Utilize your own unique presence in a powerful way
- Consciously use your body language for optimal impact
- Read and work with the energy of the audience Address audiences of all kinds – from skeptical to positive
- Handle difficult questions with style
- Employ techniques to create a strong impact and ensure your message gets through
- Leave a lasting impression

Target Group

- For those who are looking for more advanced and Intensive presentation course
- For those who have completed 'The art of presentation I' and would like to step up to another level

For more information

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5001 Hull Supervision 2 DAYS

Contents

- Shipbuilding introduction and procedure
- Maritime regime, Class role
- Materials, material protection, material selection
- Typical damages in operation
- Hull strength concept and Rule requirements
- Major supervision points on B/C, Tanker and Container carrier
- General principle of ship design and critical points

Objective

Upon completion of this course the participants will understand general overview on shipbuilding, class systematic, ship's operational condition and critical points, hull structure and strength, general hull rules background, supervision points, etc.

Target Group

- Owner's superintendents, QA/QC engineers and shipyard's production engineers
- New designers in hull structural design or in outfitting design department

Price : KRW 235,000 / day

5002 System Supervision 2 DAYS

Contents

- General Rules and regulations of SOLAS, MARPOL and Classification Society
- Class roles
- Definitions of machinery outfitting, hull outfitting, piping, accommodation outfitting
- Operational experience and typical damages
- Basic principles of machinery arrangement, piping, ventilation and insulation
- Supervision points of outfitting

Objective

Upon completion of this course the participants will understand role of Class, purpose of Rules/Regulations/Recommendations, ship's function, basic concept of system and supervision points, etc.

Target Group

- Owner's superintendents, QA/QC engineers and shipyard's production engineers
- New designers in hull structural design or in outfitting design department

Price : KRW 235,000 / day

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5003 LNG Carrier 2 DAYS

Contents

- Overview of Gas carriers & trend
- Principles of cargo containment systems
- Cargo equipment and cargo operations
- Piping requirements
- GTT information
- Cargo handling systems
- Propulsion systems
- Basic hull structures & critical points
- Information for site supervision

Objective

Upon completion of this course the participants will understand LNG carriers, cargo containment system, Rules and regulations, etc.

Target Group

- Engineers having basic knowledge in hull structural design, system design, and gas carriers
- Production Engineers and QC members for Gas carriers
- Surveyors/Owners' site team involving in Gas carriers

Price : KRW 235,000 / day

5004 Culture Awareness 2 DAYS

Contents

- Korean Culture vs European Culture
- Typical Owner characteristics
- Intercultural communication and behaviour styles
- Intercultural competence
- A model for culture – National level

Objective

Upon completion of this course the participants will increase awareness on different cultures and improve communication abilities and the participants shall ;

- Be aware of how culture has an effect on daily life
- Know some of the differences between Korean and western culture
- Be able to handle some Dos and Don'ts

Target Group

- Owner's superintendents, Shipyard's engineers who contact foreign Ship owners and Class surveyors
- Shipyard's managers

Price : KRW 235,000 / day

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