



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 1. Bridge Team Management (BTM)

**Duration:** Five days

**Conducted at:** Mumbai

#### **Objective:**

Large number of navigational accidents are attributed to human error. Lack of knowledge, poor communication, low situational awareness and an ineffective bridge team are said to be major contributing factors causing such accidents. The candidates at the end of the course would gain sufficient knowledge and experience to understand behavioral aspects of a successful bridge team in various situations along with technical information required for keeping an effective and safe navigational watch.

This course is an intense course on the theory of navigational practices including collision avoidance.

#### **Subject Areas:**

- Analysis of the trend of navigational accidents and the reasons thereof
- Understanding the effective use of human and technical resource to break the error chain leading to navigation accidents
- Management style and attitude of bridge team member plays an important role in successful completion of voyage
- To analyze the importance and interpretations of regulations governing navigation, STCW and SOLAS
- The theory and practice of passage planning and study of correct procedures for maintenance & corrections of chart and publications
- To study the finer concepts of collision avoidance regulations and their proper application on board, especially in restricted visibility.
- Case studies, analysis of various navigational accidents and supporting videos.

#### **USP:**

- 1 Concept building
- 2 Simulator practice on Full Mission Bridge Simulator
- 3 Exposure to conventions and amendments (STCW, SOLAS, ROR)
- 4 Simulator Exercises on different type of ships and in different areas of the world.
- 5 Animated videos recreating the accident scenarios.

#### **Eligibility:**

All deck officers



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## PROSPECTUS 2015-2016



## 2. Ice Navigation (ICE NAV)

**Duration:** Two days

**Conducted at:** Mumbai

### Objective:

The trainees who successfully complete this course will have gained theoretical knowledge and experience in navigating ships under various conditions in the ice infested waters and will develop practical skills in the safe operation and navigation of ships in cold and subzero climates.

In particular, trainees will gain:

A greater awareness of managing risks associated with cold climate and subzero climate.

Familiarization with IMO guidelines for ships operating in Arctic ice covered waters.

An awareness of operation and navigation technique in ice

A greater awareness and understanding of a good interactive communication style and benefit of building up a common shared mental model of the planned passage.

### Subject Areas:

Introduction to Ice navigation

Ice physics

Interpretation of ice chart

Vessel preparation for ice/ Navigation in ice

Exercise (using the information sheet, describe the passage and anticipated type & condition of ice)

Entering in ice field (Simulator training)

Classification of ice classed Ship and Ice damage

Construction of vessel for Ice

Ice related terms

Crew protection

Cold weather hazards

Precautions & procedures for Deck & Engine in ice areas

Ship manoeuvring in ice/ Breaking ice (Simulator training)

Following ice convoy (Simulator training)

### USP:

Upgraded software available for better hands on training in the ice region.

Candidates are allowed ample time in the Full Mission Bridge simulator, where they can visually distinguish between different types of ice and navigating through them.

### Eligibility:

This course is for certified navigating officer of any rank, preferably chief officers and Master. Ratings may be allowed in the course if the number of the officers is less for steering purposes only during bridge simulator exercise.



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 3. Maritime Resource Management (MRM)

**Duration:** Four days

**Conducted at:** Mumbai

**Objective:**

This is a 4 day course designed upon the “Swedish Club” guidelines. MRM training aims at developing the skills of mariners by introducing advanced leadership techniques and addressing the human factors which cause accidents at sea.

**Subject Areas:**

Situational, cultural & automation awareness

Attitude & management skill

Communication & Briefings

Challenge and response

Short Term Strategy

Authority & Assertiveness

Management styles

Workload

States of the ship

Human involvement in errors

Judgment and decision making

Leadership in emergencies

Crisis and crowd management

Simulator exercises and case studies based on behavioural aspects are also included.

**USP:**

The course is approved by Swedish Club

Simulator exercises are carried out in the Full Mission Bridge Simulator

**Eligibility:**

Certificated Masters, Navigating officers, Engineer Officers and Shore based Maritime personnel



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### 4. Large Vessel Manoeuvring (LVM)

**Duration:** Two days

**Conducted at:** Mumbai

**Objective:**

This course is theoretical and practical oriented course to understand the limitations imposed during handling of large vessels. Classroom lectures are provided for building theoretical background when executing simulator exercises.

These exercises are complex in nature and participants become familiar with the manoeuvring characteristics of the vessels and its response to the engine and helm order and also handling in various emergencies.

Each exercise will be preceded by a session for briefing and be followed by a debriefing.

**Subject Areas:**

Review of basic principles of ship handling

Familiarization with the bridge

Standard man oeuvres

Effect, limitations & use of engine, thruster and tugs

Anchoring aspects of large vessel

Wind and current effects, Shallow water effects, manoeuvring in heavy weather

Passage planning in Singapore Strait for large vessel

Planning and carrying out vessel's man oeuvre, exercise on simulator.

**USP:**

Hands on training on the Full Mission Bridge Simulator

**Eligibility:**

This course is open to all deck officers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 5. Ship To Ship Transfer (STS)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

The course objective is to provide ship handling knowledge to bridge team when involved in Ship-to-ship transfer operation. The course objective is to provide bridge team member knowledge regarding techniques and precautions under various meteorological and hydrodynamic conditions involved in mooring and unmooring two ships together for safe ship-to-ship transfer operation and deal with various emergencies involved.

The checklist and guidance advised as per the ICS – STS PUBLICATION is discussed in detail during the course.

**Subject Areas:**

General Principles of Ship to Ship Transfer  
Use of Safety Checklists  
Case study  
Simulator Exercise

**USP:**

Experienced faculty members conduct this course  
Hands on training provided on Full mission bridge simulator

**Eligibility:**

This course is open to all existing seafarers and office staff.



### 6. Theory And Practice Of Ship handling (TPSH)

**Duration:** Three days

**Conducted at:** Mumbai

#### **Objective:**

The trainees who successfully complete this 3-days course will have gained experience in handling ships under various conditions and will make a more effective contribution to bridge team during ship manoeuvring in normal & emergency situations

#### **Subject Areas:**

An understanding of the basic principles of the ship handling

An understanding of the effects on the behaviour of the ship of wind, current, shallow water, banks and narrow channels and condition of loading

Familiarization with the use of engines and helm for ship manoeuvring

A greater understanding of bank, channel and interaction effect

A greater awareness and understanding of a good interactive communication style and benefit of building up a common shared mental model of the planned passage.

#### **USP:**

- 240° Full mission bridge simulator
- Chart room stocked with chart and publication for real practice
- Instructor to participant communication
- Mooring station
- Radar station
- VHF
- Sound effect
- Upgraded ice navigation class

#### **Eligibility:**

This course is for certified navigating officer of any rank, preferably chief officers just prior to promotion as Master.





# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 7. Turkish Straits Dardanelles & Bosporus (TSDB)

**Duration:** Two days

**Conducted at:** Mumbai

**Objective:**

The trainees who successfully complete this course will have gained experience in navigating ships under various conditions in the Turkish Straits and will make a more effective contribution to bridge team during ship manoeuvring in normal & emergency situations.

**Subject Areas:**

Familiarization with passages of Dardanelles, Marmara Sea and Bosporus

Characteristics and navigational risk, Navigational regulations for the passage of Vessel through Dardanelles and Bosporus

Passage planning including contingency and emergency exercise

Familiarization with the simulator

Carrying out the planned exercise on the simulator

Position Reporting formats and procedures

**USP:**

Hands on training on the Full mission bridge simulator

**Eligibility:**

Trainees wishing to enter this course should have a minimum of six months watch keeping experience as officer in charge of a navigational watch.



### 8. Ship Handling Simulator (SHS)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

The participants who successfully complete this course will have gained experience in handling ships under various conditions and will make a more effective contribution to bridge team during ship manoeuvring in normal & emergency situations.

**Subject Areas:**

An understanding of the basic principles of the ship handling

An understanding of the effects on the manoeuvring of the ship due to pivot point shift, shallow water, banks and narrow channels

A greater understanding of bank, inside channel and vessel interaction effect

A greater awareness and understanding of dealing with emergencies

**USP:**

Hands on training on the Full Mission Bridge Simulator

**Eligibility:**

This course is open to all deck officers





### 9. Electronic Chart Display Information System – TRANSAS (ECDIS - TRANSAS)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

An officer in charge of a navigational watch needs to undergo below mentioned training for the new ECDIS training requirements:

- Generic Training
- Type-specific Training.

This course is intended to provide type-specific hands-on familiarization training, to all deck officers, on TRANSAS ECDIS models fitted on ships. Upon completion of this course the candidate will be able to familiarize with the ECDIS TRANSAS Model before joining a vessel fitted with that model along with various functions, menu & display layout, route planning & monitoring tools, safety features and various failures and updating tools on that particular model.

**Subject Areas:**

Operation of Power On/Off  
Description of the ECDIS System Configuration  
Operating of shifting the chart  
Description of the menu structure  
Displaying information on the Electric Navigational charts  
Description of the Display Panel  
Route Planning  
Route Monitoring  
Setting of ECDIS  
Charts installation and updating  
Changing over to backup system  
Explain main differences in various JRC Models

**USP:**

- 1 Candidates are allowed hands on training with full access on a working TRANSAS ECDIS.
- 2 The faculty at SIMS have received training directly by a TRANSAS ECDIS representative.

**Eligibility:**

Mandatory for Deck Officers



### 10. Electronic Chart Display Information System – Japan Radio Corporation (ECDIS - JRC)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

An officer in charge of a navigational watch needs to undergo below mentioned training for the new ECDIS training requirements:

- Generic Training
- Type-specific Training.

This course is intended to provide type-specific hands-on familiarization training, to all deck officers, on **JRC ECDIS** models fitted on board ships.

Upon completion of this course the candidate will be familiar with the JRC ECDIS along with the various function tabs, menu layout and operation of the keyboard. Important features such as route planning & monitoring tools, user maps, various alarms and failures and chart installation / updating are also part of this course.

**Subject Areas:**

Operation of Power On/Off  
Description of the ECDIS System Configuration  
Operating of shifting the chart  
Description of the menu structure  
Displaying information on the Electric Navigational charts  
Description of the Display Panel  
Route Planning  
Route Monitoring  
Setting of ECDIS  
Charts installation and updating  
Changing over to backup system  
Explain main differences in various JRC Models

**USP:**

- 1 Candidates are allowed hands on training with full access on a working JRC's ECDIS.
- 2 The faculty at SIMS has received training directly by a JRC ECDIS representative.

**Eligibility:**

Mandatory for Deck Officers



### 11. Electronic Chart Display Information System – FURUNO (ECDIS - FURUNO)

**Duration:** Own Pace

**Conducted at:** Mumbai

#### **Objective:**

An officer in charge of a navigational watch needs to undergo below mentioned training for the new ECDIS training requirements:

- Generic Training
- Type-specific Training.

This course is intended to provide type-specific hands-on familiarization training, to all deck officers, on **FURUNO ECDIS** models fitted on ships, after a candidate has undergone the generic training. Upon completion of this course the candidate will be able to familiarize with the ECDIS FURUNO Model before joining a vessel fitted with that model along with various functions, menu & display layout, route planning & monitoring tools, safety features and various failures and updating tools on that particular model.

#### **Subject Areas:**

Operation of Power On/Off  
Description of the ECDIS System Configuration  
Operating of shifting the chart  
Description of the menu structure  
Displaying information on the Electric Navigational charts  
Description of the Display Panel  
Route Planning  
Route Monitoring  
Setting of ECDIS  
Charts installation and updating  
Automatic Sailing (TCS)  
Changing over to backup system

#### **USP:**

1 Candidates are trained for FURUNO latest models

#### **Eligibility:**

Any deck officer who has successfully completed the ECDIS generic training course.



### 12. Advanced Training On Oil Tanker Operations (ASOT)

**Duration:** Three days

**Conducted at:** Mumbai

#### Objective:

This Advanced Safety Training on Oil Tankers course is primarily intended for Masters, Chief Officers and Second officers closer to promotion on Type 3 chemical tankers and oil tanker vessels. This course is more oriented towards the oil side with smaller portions covering chemical tanker topics as well.

A trainee on completion of this course will be able to carry out oil tanker operations / duties commensurate to his basic qualifications (support level/operator level) with due regard to our customers managed ships in a much more efficient manner.

#### Subject Areas:

- Precautions for H2S.
- MSDS Sheet interpretation, SOPEP, VRP.
- Important procedures listed SMS manual.
- Ship shore safety check list in detail.
- Commercial aspects.
- Loading plan.
- Discharge plan.
- Cargo equipment.
- Inert gas system.
- Tank cleaning, Crude Oil Washing plan.
- Simulator exercises on a fully functional Liquid Cargo Handling Simulator.
- Centrifugal pumps and Framo pumps.
- Cargo calculation.
- Ship to Ship operations
- Tanker mooring.
- Oil Record book entries.
- Type 3 chemical tankers, IBC code, Marpol Annex 2, cargo handling.

#### USP:

1 The course is made specifically to customer's requirement and complies with company procedures as per their SMS manuals.

2 The course includes training on the Liquid Cargo Handling Simulator and a practical demonstration of a working framo pump in our Tankroom.

#### Eligibility:

Persons joining as a Master, Chief Officers and senior second officers on oil tankers



### **13. Advanced Safety Training On Chemical Tanker Type – II (ASCT - II)**

**Duration:** Three days

**Conducted at:** Mumbai

#### **Objective:**

This course is primarily intended to familiarize deck officers with the cargo handling on board a Type II chemical tanker. Our focus here is to enhance the candidate's knowledge about personal safety and safe tanker practices on Type-II chemical tankers. The course involves practical training in our TANK ROOM and on completing the course the trainees will be able to demonstrate correct loading / discharging techniques, proper cargo watch-keeping and hazard mitigation. The course adds value to the Indian Administration approved courses such as "Chemical Tanker Familiarization" (CHEMFAM) and the "Specialized Training Programme on Chemical Tanker Operation" (CHEMCO) which are also conducted here.

#### **Subject Areas:**

Material Safety Data Sheet (MSDS) Sheet  
IBC code and MARPOL Regulations  
Chemical tanker operation & Cargo Watch keeping  
Special cargo care  
Safety management  
Cargo planning  
Tank cleaning  
FRAMO cargo pumping system

#### **USP:**

- 1 A practical course conducted using our TANK ROOM facility in addition to classroom lectures
- 2 The course covers all the safety aspects related to type II chemical tankers for a joining officer.

#### **Eligibility:**

Persons joining as a Master, Chief Officers and senior second officers on chemical tankers





### **14. Advanced Liquid Cargo Handling Simulator (Chemical) (C-LCHS)**

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

This course is theory & practical oriented. It is primarily intended for familiarization of Deck Officers with cargo handling equipment's and making cargo plan on chemical tankers.

The trainees who successfully complete this course will be able to explain the loading / discharging techniques, Tank cleaning and handling of various chemical cargoes safely. He will be able to identify the hazards and take appropriate precautions

**Subject Areas:**

- Hazards
- Ship shore safety check list
- IBC code, MARPOL
- Planning for loading
- Planning for discharging
- Executing of cargo plan
- Operation of FRAMO pump, tank stripping
- Tank cleaning
- Wall wash test
- Handling of special cargoes
- Testing of cargo related equipment's

**USP:**

- 1 Hands on training provided in Tank room
- 2 Supported by Liquid cargo handling simulator

**Eligibility:**

Mandatory for Deck Officers holding Certificate of Competency 2nd Mate and above, working and or intending to work on Chemical Tankers





### 15. Advanced Training On Gas Tanker Operations (ATGO)

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

This course is aimed to provide information, share experience and raise awareness about the practical operational and maintenance procedures on Liquefied Gas Tankers. The application of correct procedure on these subjects cannot be over-emphasized since hydrocarbon / chemical gases play a vital part in modern ship practice and their mishandling or misuse can lead, at the very least to lowered efficiency of operation and at worst to serious damage and even loss of life.

Successful completion of this course should enable trainees to serve on liquefied gas tankers in the capacity of master, chief engineer officer, chief mate or second engineer officer and to perform specific duties.

**Subject Areas:**

- Properties and Hazards of cargoes
- Cargo Equipment and instrumentation
- Tank Environment Control
- Safety Precaution and measures
- Emergency operations
- Firefighting Systems & procedures
- Hazards & Safety

**USP:**

- 1 Details of tank room –practical course in addition to classroom lectures
- 2 Supported by Liquid Cargo Handling Simulator

**Eligibility:**

Operational level and management level seafarers. Should have minimum 3 month sailing experience on gas tankers and must have done STCW 95 gas modular courses.



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

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## 16. Bulk Carrier Training (BCT)

**Duration:** Two days

**Conducted at:** Mumbai

### **Objective:**

The trainees who successfully complete this course would have gained theoretical knowledge to perform specific duties and carry specific responsibilities in connection with cargo in the capacity of an officer on board a Bulk Carrier managed by ESM

### **Subject Areas:**

- Introduction to Bulk carrier
- Cargo calculation procedures
- Exercise on cargo calculation procedure
- Important aspects of special bulk cargoes
- Procedures & requirements of draft survey
- Understanding Safety & vulnerability on Bulk Carriers
- Trade pattern & various other aspects of the specific company Bulk carriers

### **USP:**

- 1 Concept building
- 2 Practical sessions

### **Eligibility:**

All deck officers



# **SAMUNDRA INSTITUTE OF MARITIME STUDIES**

PROSPECTUS 2015-2016



## **17. Reefer Container handling course (In process)**



### **18. Operations And Maintenance Of FRAMO Cargo Pumping System (FRAMO)**

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

This course has been designed by FRAMO and conducted by SIMS. This course is meant for all officers on board ships fitted with FRAMO cargo pumping system. The course covers the hydraulics, controls, cargo pumping theory with associated practical.

Trouble shooting, testing alarms & interlocks are included. The cargo tank with working FRAMO hydraulic system installed at SIMS is used to demonstrate Loading, Discharging, Stripping, Emergency operation with Portable pump and Cofferdam purging operations.

**Subject Areas:**

Introduction

General Arrangement and Hydraulic Circuit

Hydraulic Oil and Filtration

Control Valves

FRAMO Cargo Pump

Operation of Cargo Pumps

Dismantling and assembling of cargo pump

**USP:**

1 Only one of its kinds with actual stainless steel tank and FRAMO system in our Tank room

2 Fully fitted- out cargo tank replica with FRAMO pump- FIRST IN THE WORLD

**Eligibility:**

All Shipboard officers and engineers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

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### 19. Boiler Combustion & Control (BCC)

**Duration:** Two days

**Conducted at:** Mumbai

#### Objective:

The trainees, upon successful completion of the course would have gained theoretical and practical knowledge regarding the auxiliary boiler combustion system, steam raising procedure, testing of alarms and shut downs – operation, troubleshooting and maintenance aspects.

#### Subject Areas:

The following subject areas will be covered:

Overview of boiler combustion system and steam raising

Individual components: - Assembly and design, working principle, fault conditions and maintenance of following:

- Burner assembly
- Airflow control, Air/ Fuel ratio controller
- Automatic programme for steam raising, dynamics of control behavior with varying steam demand
- Boiler drum water level sensing, alarms and testing
- Sensing devices for flame detection, drum pressure, and airflow
- Control circuit, safety circuits

Operation of the boiler under changing steam demand conditions, monitoring of parameters

Emergency operation of boiler in case of control failure

#### USP:

#### Eligibility:

All Engineers and Electrical Officers



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### **20. Automation & Control (AUTO)**

**Duration:** Five days

**Conducted at:** Lonavala

#### **Objective:**

This course is theoretical & practical and is primarily intended for familiarization of engineers and electrical officers with shipboard automation and control practices in the areas of measurement techniques of pressure, level, flow and temperature; instrumentation techniques, remote transmission, building PI diagrams, PID controllers.

The trainees who successfully complete this course will be able to explain the working and features of shipboard automation and control systems.

#### **Subject Areas:**

Different techniques of measurement of pressure, flow, level, temperature, etc.

Pneumatic Transmitters and current converters

Pneumatic systems using bellows, flapper, nozzle

Introduction to two steps, proportional, integral, derivative actions

Different arrangements for controllers using pneumatic components

Pneumatic Nakakita controller

Working of different temperature, level sensors

Experimentation using a servomechanism trainer for control of speed

Use of Nakakita pneumatic controller for control of temperature

Operation of the Miura boiler, study of its components, related functions, safety systems, cutouts, electrical relay operation, and study of the electrical circuit diagram

Use of Nakakita controller for control of level

Study of valve positioners and control valves

#### **USP:**

Experienced faculty members conduct this course and hands on training provided

#### **Eligibility:**

All Engineers and Electrical Officers





### **21. Main Engine Manoeuvring System (MEMS)**

**Duration:** Two days

**Conducted at:** Lonavala

**Objective:**

A main engine manoeuvring system based on B&W SMC 60 has been installed with actual ship board components. The 2 day course has been designed to cater to all engineers and electrical officers to understand and get hands on experience on the system.

**Subject Areas:**

Theory of Logic Gates

Basics of Starting & reversing

Pneumatics Valves and accessories

Symbols and Convention

Understanding of a pneumatic control and building simple circuits on Pneumatic trainer

B&W manoeuvring system in detail, circuit tracing and component identification

**USP:**

Hands on training on trying out & trouble shooting

**Eligibility:**

All Shipboard engineers



### **22. PHOENIX - Planned Maintenance System Course (PHOENIX)**

**Duration:** One day

**Conducted at:** Lonavala

**Objective:**

This course introduces the candidates to the very basics of planned maintenance systems & makes them adept users of the software. Various aspects of the planned maintenance system are discussed, structure of database & correct method of reporting planned & breakdown maintenance jobs. Inventory control, Spare Parts & Purchase order & requisition are discussed in detail.

**Subject Areas:**

- Component Grouping
- Searching Components, critical Spares
- Filtering work orders by rank, date, overdue, etc.
- Updating Counters
- Creating unplanned work order
- Reporting work orders
- Updating of Stock
- Create Location
- Creating a requisition for spares
- Receiving purchase orders in full or part
- Stock control (inventory corrections)
- Export/Import

**USP:**

- In-house developed software
- Data entry in the live version of the software

**Eligibility:**

This course is intended for all officers both on the navigation & engineering side.



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

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### 23. Electrical Practice (EP)

**Duration:** Twelve days

**Conducted at:** Mumbai & Lonavala

**Objective:**

The trainees who successfully complete this course will be familiarized with electrical knowledge on electrical equipment's such as motors, starters, alternators, transformers, lighting and wiring systems, working principle, operation and maintenance on the above system.

This course helps the trainees to explain the working and features of shipboard electrical systems, circuit diagrams, working of starter panels using embedded systems.

**Subject Areas:**

Electrical Power Systems, Three phase power, the various systems of three phase power

A comparison study of three phase – three wire power systems as opposed to three phases – four wire power systems on board a ship

Distribution of power to various consumers & concept of Switchboard systems

Group starter Panels

Relays & Timers

Motors – Three phase induction, squirrel cage motors.

Starting characteristics & Torque considerations

Starter Panels

TERASAKI Starter panels

**USP:**

Actual hands on training

**Eligibility:**

Any engineer or electrical officer



### **24. Familiarization & Safety Training on Chemical Tankers (FSCT)**

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

At the end of the course, the candidates shall be able to:

- Explain the hazards of the cargoes carried on chemical tankers
- Describe the operations and maintenance of submerged cargo pumps
- Explain the procedures and safety precautions during all cargo operations and tank cleaning
- Understand precautions for various special cargo
- Demonstrate tank inspection and wall wash test and passivation

**Subject Areas:**

- HAZARDS: Health, Environmental, Flammability
- Special Cargoes: Molasses, Sulphuric acid, Phenol
- Cargo equipment
- Cargo operation
- Critical Cargo Operation
- Pump operation
- Personal Protective Equipment
- Hose connection / Disconnection
- Loading & Discharging
- Line Flushing / Clearing frozen lines
- Tank cleaning
- FRAMO pump – Operation & maintenance
- Emergency portable pump (Rigging procedures)
- PV Valve Testing and overhaul
- Practical in tank room for operations and overhaul

**USP:**

A practical course conducted using our TANK ROOM facility in addition to classroom lectures

**Eligibility:**

All junior officers & ratings joining chemical tankers



### **25. Familiarization & Safety Training on Gas Tankers (FSGT)**

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

Successful completion of this course will enable trainees to serve on liquefied gas tankers in the capacity other than that of master, chief engineer officer, chief mate or second engineer officer and to perform specific duties.

**Subject Areas:**

This course is supplementary to the Indian Administration approved Liquefied Gas Tanker Familiarisation (GASFAM) course. It includes basic safety and pollution prevention precautions and procedures, layouts of fully pressurized liquefied gas tankers, types of cargo, their hazards and their handling equipment, general operational sequence and liquefied gas tanker terminology.

The following subject areas will be covered:

- Development of fully pressurized gas tankers
- Important terms
- Types of gas tankers
- Cargo handling equipment and instrumentation
- Cargo work
- Vessel underway in loaded condition
- Discharging
- Ship to Ship transfer
- General operation
- Safety precaution and emergency operations

**USP:**

Hands on training in the use of portable Gas meters

**Eligibility:**

All Officers and Ratings



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### **26. Familiarization & Safety Training on Oil Tankers (FSOT)**

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

At the end of the course, the candidates shall be able to:

- Describe the types of oil tankers
- Explain the hazards of the cargoes carried on oil tankers
- Explain the operations and maintenance of centrifugal cargo pumps
- Explain the purpose of a stowage plan, cargo plan
- Explain the procedures & safety precautions during all cargo operations on a oil tanker
- Explain the procedures & precautions during tank cleaning / gas freeing operations on oil tankers
- Explain the purpose of ship / shore safety check list
- Explain IG system, various alarms / trips
- Demonstrate the operation / limitation / calibration of portable gas meters

**Subject Areas:**

Training needs are as identified by our customers, and includes topics that are not covered in the Indian Administration / IMO approved Oil Tanker Familiarization (OILFAM) course. On completion of this course the candidates shall be able to apply relevant regulations and standards concerning operational safe handling on oil tankers.

**USP:**

Hands on training in the use of portable Gas meters

**Eligibility:**

All Officers and Ratings





# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 27. Behaviour Based Safety (BBS)

**Duration:** Half day

**Conducted at:** Mumbai

**Objective:**

This course covers the technique that can be used to identify behavioural issues pertaining to officers and crew on board. It includes collection of data of 'safe' and 'unsafe acts' and modification of behaviour.

The trainees who successfully complete the BBS course will be able to demonstrate use of BBS technique to identify critical behaviors, observe work areas and modify behavior of the team members.

**Subject Areas:**

History of safety performance evolution

Relation between safety and behaviour

Concepts of Behaviour Based Safety

ABC model

Effect of antecedents and consequences on behaviour

Behaviour Based Safety implementation process map

Different steps of BBS process map

Methods to modify antecedents and consequences

Open forum, discussion and conclusion

**USP:**

1. Course content presented in very simple and effective way.
2. A totally new approach to tackle unsafe behaviour in shipping industry.

**Eligibility:**

Any seafarer can attend this course.



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 28. Hazardous Area Course (HAZAREA)

**Duration:** Five days

**Conducted at:** Lonavala

#### Objective:

This course is theoretical & practical and is primarily intended for familiarization of engineers and electrical officers with hazards involved in using electric appliances in explosive atmospheres. This covers the causes of explosion, principles of zoning, gas grouping, ingress protection, explosion protective ratings of electrical appliances, philosophy behind protection systems, certification of explosion protected instruments, and exposes the candidates to the topics that concern the safety of operating within these areas.

The trainees who successfully complete this course will be able to explain the causes of explosions in ships, details of gas grouping and explosion protected instruments, zonal classification and certification of explosion protected instruments.

#### Subject Areas:

1. Demonstrating a good understanding of the concept of Hazardous area & the terminologies thereto related.
2. Understanding the hazards of using electrical equipment in the presence of flammable gases vapors and dust .
3. Comprehend the basics of explosion protection.
4. Static electricity & protection technique .
5. Earthing & bonding.
6. Sources of ignition.
7. Classification schemes.
8. Zoning & gas concentration diagrams.
9. Intrinsically safe equipment and other explosion protected equipment.
10. Apparatus that can be used in explosive zones or hazardous area.
11. Understanding the limitations of hazardous area protection.
12. National codes, Atex directive & legal issues.
13. Maintenance.
14. Safety in electrical system.

#### USP:

Experienced faculty members conduct this course.

#### Eligibility:

This course targets all Engineer officers, Electrical Officers & ETO's.



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 29. ISM Internal Auditor (ISMIA)

**Duration:** Two days

**Conducted at:** Mumbai

**Objective:**

The aim of this 2-days course is to provide the participant with the necessary skills to be able to plan, prepare for and conduct an effective Internal Safety Audit on an implemented ISM Code Safety Management System.

**Subject Areas:**

- The contents of ISM code
- How to make use of the elements of the ISM code to conduct an internal audit
- How to plan & prepare for the audit
- The traits of an auditor
- Techniques involved in conducting an audit
- How to write a non-conformity report

**USP:**

Trained Trainers

**Eligibility:**

The course is designed only for senior officers who can be asked to conduct or participate in an internal audit on board.



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 30. Marine Pollution Compliance (MARPOL)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

This course is a one day course. This course was developed to discuss the correct understanding, interpretation and application of the MARPOL convention and compliance as required by USCG and other Port states.

**Subject Areas:**

Understanding of MARPOL regulations

To understand USCG-MARPOL violations/ commercial implications

Understanding the requirements under Oil Pollution Act (OPA 90) and How to report in case of Emergency and Oil Pollution as per the Vessel Response Plan.

Learn Operation and Maintenance of Oily Water Separator /Oil Content Meter /Incinerator

To learn the contents of Technical circular and practices to be followed for MARPOL compliance

IOPP certificate and procedure for filling engine room oil record book as per MARPOL Annexe-1

Exercise on Oil Record Book

Proactive compliance with Voluntary Environmental Compliance Programme (VECP)

**USP:**

Experienced faculty members conduct this course

Proactive measures to comply with MARPOL latest regulations all over the world.

**Eligibility:**

All officers



### **31. Port State Control And Oil Major Inspections (PSCOM)**

**Duration:** Two days

**Conducted at:** Mumbai

**Objective:**

This course is intended for officers and the aim of the course is to develop understanding of Port State Control Inspections, Oil Major Vetting inspections and provide guidance on the preparation and conduct of such inspections to enable ship staff to ensure from the point of view of safety of life, ship and pollution prevention, that the ship is fit for service she is intended and fully complies with all applicable rules, regulations and conventions.

The basic aim being passing the inspections with a clean record and have zero deficiencies.

**Subject Areas:**

Port State Control Inspections

Oil Major Vetting inspections

**USP:**

Our faculty regularly upgrades their knowledge with the latest regulations / developments and keeps track of the trends in PSC / Vetting observations and brings these to the notice of the trainees.

**Eligibility:**

All deck and engineer officers including deck cadets and trainee marine engineers who have undergone pre sea training



### 32. Safety Awareness (SA)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

The objective of this 1-day course is to inculcate a SAFETY CULTURE among all the shipboard personnel. The trainees who successfully complete this course will understand the Companies and the customer's safety culture, with regards to HEALTH, SAFETY and ENVIRONMENT PROTECTION.

**Subject Areas:**

To develop a safety culture

Take 5: a Personal TOOL to be used by all on board and ashore.

GOLDEN RULES: basic safety rules followed by personnel worldwide.

Getting Health Safety and Environment quality Right

Environment Protection, Legal Implication if not followed.

**USP:**

Course content presented in very simple and effective way

A new approach to inculcate safety as a culture in the participants

**Eligibility:**

Any officer





# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 33. Ship Board Operating Environment (SOE)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

Shipboard Operating Environment is a company specific course designed for personnel joining our customers Vessels to familiarize them with the company IT protocol. It gives them an insight into the standards; procedures & reporting systems that BP want their personnel to adopt.

**Subject Areas:**

The layout or structure of the network, workstations, permitted & legal software lists are discussed.

The communication platform & privileges extended to the officers are made known to the joining personnel. It is indeed a very beneficial course that BP shipping has invested in, taking a day to familiarize their personnel with BP IT protocol & some other legal or ethical matters.

This course is run for a day where the joining personnel are made familiar with IT protocol, backup systems, Contingency measures & reporting a breakdown in the IT system to fixing the problem.

Introduction to other software & utilities like ENTEK & other CBM packages are briefly discussed.

The course is meant to be interactive aimed at having an organized & trouble-free IT system which is beneficial to shipboard personnel & the office with minimum downtime & effective usage of the IT system.

**USP:**

Experienced faculty members conduct this course

**Eligibility:**

This course is open to all officers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 34. Effective Behaviour Management

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

On completion of training, trainees will have gained knowledge and a clear concept of EBM using the audit technique of 'testing-verifying-recommending-correcting' based on the method of relating behavior and culture towards safety.

**Subject Areas:**

Effective Behaviour Management is a powerful tool at the work place to develop the safe working culture of the staff to follow correct procedures to prevent accidents. The course covers the theory and techniques of advances safety auditing with supportive videos and practical mock sessions. It is based upon techniques that have been proven in many different industries, cultures and countries, to have dramatic effects upon the safety related behaviours at all levels within the organization.

**USP:**

Experienced faculty members conduct this course

**Eligibility:**

Senior Officers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 35. Command Oriented Course(COC)

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

The trainees who successfully complete this course will have gained knowledge in improving management on board with emphasis on the responsibilities with reference to the legislation, practices and what is expected from employer, flag State, Port State and classification societies. The trainees will make a more effective contribution to smooth operation of the ship in normal & emergency situations. The trainees will gain

An understanding of the role of the Master and Chief Engineer on board the Ship

An understanding of the Ship manager and the way ESM functions

A greater understanding of charter parties, legislative and contractual obligation

A greater understanding of man management

An insight into insurance policy

An understanding of bunker planning and bunker disputes

**Subject Areas:**

Demand & expectations of various parties, ship owner, charterer, ship manager, ports & terminals, flag state, port state, underwriter and classification societies.

The role of a ship manager and the way ESM functions, role of shore based staffs.

Maritime legislation, Legal authority of Ship Master and overriding authority

Group exercise on recent on board accident

Working of H&M insurance & P+I club.

HSEQA, presentation on the integrated management system

Voyage bunker planning exercise

On board management for efficient and effective working Charter party terms (inclusion and exclusions with reference to legal and commercial implications) Discussion on LAYCAN, NOR, note of protest, B/L, LOI, COGSA, Salvage and towage contract.

Loss prevention measures

Surveys and certification

Interaction with the manning department and on board crew documentations

Controls of spares, stores, provisions, bond.

**USP:**

1 A special course developed by SIMS for senior deck officers of the ship

2 Course prepares aspiring officers for command

**Eligibility:**

This course is for senior deck officer just prior to promotion as Master. However, anyone in a senior rank may attend to enhance their knowledge and concepts.



### **36. Electronic Document Management System (EDMS)**

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

This course is applicable to all officers joining ESM fleet vessels. The course objective is familiarizing the candidates with ESM policy and procedures.

**Subject Areas:**

ESM safety management system manuals and them use.

Work permit system

Risk Assessment & JHA

Use of different types of forms, checklists, work permit

ESM statistical analysis of static PSC and OIL MAJOR Inspection parts performance

Incident categorization

Critical equipment

Decks officers duties, HSSE meeting, use of forms

Important company guidelines

ISO 9000, ISO 14000, OHSAS 18000 standards

Effective behaviour management

Drug - alcohol policy.

Medical treatment, Rest hour policy

Daily Work plan, Open reports & complaints

Document revisions

**USP:**

Familiarization with the company policy and recent amendments

Updates on new regulations

**Eligibility:**

All officers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### **37. Root Cause Analysis (RCA)**

**Duration:** 4.5 hrs.

**Conducted at:** Mumbai

**Objective:**

This one day course is the new concept of accident or incident investigations which goes well beyond the superficial factors.

**Subject Areas:**

This technique based on MSCAT involves learning the way to carry out a detailed investigation into any accident to find out the root cause and then to suggest changes to the management system to prevent reoccurrence.

**USP:**

Trainers trained in RCA Technique.

**Eligibility:**

All officers



### **38. Medicare Refresher Course (MED-REF)**

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

This is a 1 day refresher course for proficiency in medical care on board ship

The training, in particular is intended for seafarers who are designated to take charge of medical care on board ship, in accordance with:

Regulation VI/4 of the Annex to the STCW convention and section A-VI/4 (4-6) of the STCW code -The Merchant Shipping Regulations

This course will provide the refresher training required to achieve the Proficiency in Medical Care On board Ship (PMC) course, as well as the additional training requested by BP Shipping.

**Subject Areas:**

Knowledge of the types of ships' medical equipment and stores and their use

Diagnose medical problems on board ship

Provide medical care to the sick and injured and deal with medical emergencies while they remain on board

**USP:**

The course is conducted by highly qualified and experienced doctors

**Eligibility:**

Officers with at least 18 months sea service, Proficiency in Medical First Aid aboard Ship Course within the last 5 years





### 39. Behaviour Based Safety – Crew (BBS-C)

**Duration:** Half day

**Conducted at:** Mumbai

**Objective:**

This course covers the technique that can be used to identify behavioural issues pertaining to officers and crew on board. It includes collection of data of 'safe' and 'unsafe acts' and modification of behaviour.

The trainees who successfully complete the BBS course will be able to demonstrate use of BBS technique to identify critical behaviors, observe work areas and modify behavior of the team members.

**Subject Areas:**

History of safety performance evolution  
Relation between safety and behaviour  
Concepts of Behaviour Based Safety  
ABC model  
Effect of antecedents and consequences on behaviour  
Behaviour Based Safety implementation process map  
Different steps of BBS process map  
Methods to modify antecedents and consequences  
Open forum, discussion and conclusion

**USP:**

1. Course content presented in very simple and effective way.
2. A totally new approach to tackle unsafe behaviour in shipping industry.

**Eligibility:**

Any seafarer can attend this course.



### **40. Basic Framo Course for Fitters (FRAMO - B)**

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

This is 1 day course for fitters and motor man. This course covers the complete FRAMO cargo pump installed on board tankers. The one day course includes cargo pumps, sealing arrangement and hydraulic motor and drives, maintenance of critical components. Important aspects of lecture topics are supplemented with hands-on-practical demonstration. The course has been developed and conducted by SIMS.

The trainees who successfully complete this Course will have gained theoretical and practical knowledge on the working principle, operation and maintenance of the cargo pumps: -

**Subject Areas:**

Theory and operating principle of equipment

Theory of Condition monitoring and identifying the need for maintenance

Planned maintenance routines

Safe working practices

**USP:**

Use of special tools

**Eligibility:**

All Shipboard fitters and motormen



### **41. Basic Tanker Operation Training Course (BTOT)**

**Duration:** One and Half days

**Conducted at:** Mumbai

**Objective:**

This basic familiarization course is for ratings, who are first time joiners on oil and chemical tankers. It is primarily intended for familiarizing these ratings on oil and chemical tankers.

The trainees who successfully complete this course will be able to explain the loading / discharging and various other operations on oil and chemical tankers. They will be able to identify the hazards involved and also take appropriate precautions.

**Subject Areas:**

- Hazards
- Tanker layout
- Loading and discharging operation
- Inert gas system & COW
- FRAMO pump
- Enclosed space entry
- Tank cleaning
- Handling of special cargoes
- Cargo equipment
- Fire Fighting & MARPOL
- Vetting inspection
- Chemical Spills

**USP:**

- 1 Concept building about all types of tankers
- 2 The course covers all the safety aspects for a joining crew.

**Eligibility:**

Deck and engine crew who have sailed only on bulk carriers and are joining tankers

All ratings who have completed Oil Tanker Familiarization (OILFAM) or Chemical Tanker Familiarization (CHEMFAM) course.



### 42. Integrated Safety Training For Ratings (ISTR)

**Duration:** Four & Half days

**Conducted at:** Mumbai

**Objective:**

Rating who successfully complete this course will be able to explain the different safety aspects related to different types of work in ships and also will improve in developing a safety culture in their work.

**Seamanship**

Construction of ropes  
Practices on Knots & Hitches  
Practices on Rope splicing & whipping  
Practices on wire & hawser splicing

**Painting**

Surface preparation  
Care of equipment  
Types of paints

**Mooring**

Safety during mooring  
Handling of heaving line & wire ropes  
Methods of inspection

**Firefighting**

Mock-up structure  
Blind fold entry  
Rescue operation

**Free fall lifeboat**

Safe preparation for launching

**Oil tanker**

Safety  
Operations:  
    1. Crude Oil Washing  
    2. Inert Gas  
    3. Cargo  
P/V valve testing  
Engine room operations



**HSEQA**

# **SAMUNDRA INSTITUTE OF MARITIME STUDIES**

## **PROSPECTUS 2015-2016**



Job hazard analysis

Risk assessment

Area of Responsibility

Permits system including filling up of Enclosed Space Entry

Rescue Operation from Enclosed Space

Lock out Tag out

Step change for Safety – learning from incidents

Behaviour based safety (BBS)

MLC – 2006 –open report & grievances redressal

Work Rest Hours

### **Security**

Security Duties

Gangway briefing

### **USP:**

1 Actual hands on seamanship training for crew by experienced instructor.

2 The course covers all the safety aspects for a joining crew.

### **Eligibility:**

Any rating



### **43. Marine Pollution Compliance - Crew (MARPOL-C)**

**Duration:** Half day

**Conducted at:** Mumbai

**Objective:**

This course is developed to discuss the correct understanding, interpretation and application of the MARPOL convention and compliance as required by USCG and other Port states.

After successful completion of the course students will be able to -

Understanding of MARPOL regulations

To understand USCG-Marpol violations/ commercial implications

Understanding the requirements under OPA 90 (VRP) and How to report in case of Emergency regarding Oil Pollution as per OOPS.

Learn Operation and Maintenance of OWS/OCM/Incinerator

Proactively comply with Voluntary Environmental Compliance Programme (VECP)

To learn the contents of Technical circular and practices to be followed for MARPOL compliance, IOPP certificate and procedure for filling engine room oil record book as per MARPOL Annexe-1

**USP:**

Latest regulations and case studies

**Eligibility:**

Any seafarer





# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### **44. MARITIME ENGLISH (ME)**

**Duration:** 2 days

**Objective:**

At the end of this course the trainee's will be able to enhance their use of English language as the language of communication aboard ships.

- The reason for learning English
- Instructions & Command
- Dictation
- Conversation
- Making simple sentences
- Basic questions asked by PSC inspectors
- Exercise-Reading, writing, Listening and Speaking.

**Subject Areas**

For new entrants to merchant navy and existing seafarers who are non-native speakers of English and wish to update and upgrade their level of English communication so as to become better and more efficient seafarers while on duty aboard foreign-flagged ships.

**Eligibility**

All ratings with basic knowledge of English



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 45. Pumpman Course (PMP)

**Duration:** 15 days

**Conducted at:** Mumbai & Lonavala

**Objective:**

This is a 15-days in-house training course which is developed to train deck and engine room ratings having an aptitude to perform Pumpman duties on oil tankers in the Fleet. This course provides an understanding of safe Oil Tanker operations, under International, National & Local Regulations applicable to Oil Tanker operations. It aims to improve the theoretical and practical knowledge and skills of the crew members involved in the loading and unloading of cargo from oil tankers by focusing on optimization of resources for cargo handling, and the maintenance and repair of associated cargo handling equipment on oil tankers. The trainees who successfully complete this course will be able to explain the tanker operations, safety in all tanker operations carry out the duties required of a tanker pump man on the deck and in the pump room.

**Subject Areas:**

Safe Working Practices on Oil Tankers

Use of Lathe Machine for various jobs on it

Electric Arc welding

Few aspects of Auxiliaries in the Engine Room

Seamanship aspects such as handling cranes, davits, moorings and gangways

Oil Tanker piping and pumping systems

Hazards associated with Petroleum Cargoes

Pump room machinery and overhaul

IG Systems and Layout

Tank cleaning, COW and other tanker operations including purging and gas freeing of tanks and lines

STS, Ballasting and Deballasting operations as well as Permit to Work systems

FRAMO pumps and Static Hazards

Case studies are discussed at every level

**USP:**

1. SS Cargo tank at Mumbai
2. Full-fledged marine repair workshop at Lonavala for practical
3. Tanker Manifold for practising connecting, disconnecting, flushing and pressure testing of lines and hoses
4. Liquid Cargo Handling Simulator for tracing pipelines on deck and Pump room
5. Practical in overhauling of pumps
6. Testing of PV valve
7. Use of gas meters

**Eligibility:**

All Shipboard crew e.g. fitters, Pumpman and motorman with age less than 50 years and has completed basic tanker safety course apart from other statutory courses can participate in this course.



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 46. Team Work (TW)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

This course is meant for all ship board personnel. The objective is to introspect personal behavior – insight into those actions that enhance / obstruct team work.

Give insights to various aspects of team work – characteristics of effective teams, obstacles and tools to overcome friction in teams.

**USP:**

Help teams work more effectively and efficiently

**Eligibility:**

All Shipboard ratings



### 47. Chemical Tanker Manifold Training Course (CTMT)

**Duration:** Two days

**Conducted at:** Mumbai & Lonavala

**Objective:**

This course is theory & practical oriented. It is primarily intended for familiarization of chemical tanker manifold connections and other jobs related to cargo operation for deck ratings and officers.

The trainees who successfully complete this course will be able to carry out various jobs related to manifold connections on chemical tanker without injury. Also he will be able to identify the hazards and take appropriate precautions.

**Subject Areas:**

MSDS Sheet

Equipment's of chemical tanker

Pre loading preparation

Pump operation & Enclosed space entry.

Tank cleaning

Chemical tanker manifold

Hose connection / Disconnection

PPE

**USP:**

Actual Chemical Tanker Manifold set up

Concepts building on correct hose connection and disconnection technique

The course covers all the safety aspects for a joining crew and officer working on chemical tanker

**Eligibility:**

Any junior officer or crew member joining chemical tanker



### **48. RATING CHEMICAL TANKER MAINTENANCE COURSE (RCTMC)**

**Duration:** 1 day

**Conducted at:** Mumbai

#### **Course Objectives**

The course enables the participants to carry out maintenance work on board Chemical tankers with an understanding of commercial requirements vis-à-vis safety; with more practical training on the chemical tanker work.

#### **Subject Areas:**

The following subject areas will be covered:

- Tank passivation
- Tank coatings repairs and maintenance
- Ship specific chemical tankers specifications
- GA Plan, fire plan interpretation
- PV valve and tank heating coil pressure testing
- Tank cleaning machine overhaul

#### **Eligibility**

All ratings and petty officers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 49. PRACTICAL SEAMANSHIP TRAINING (PST)

**Duration:** Two days

**Conducted at:** Mumbai

**Objective:**

This course is designed to impart training to our deck ratings in various deck machinery eg windlass, anchors etc.

**Subject Areas:**

Care and maintenance of windlass, anchors and bow stopper is explained. Different types of ropes and wires are also explained including their characteristics, care and maintenance of fibre and wire ropes.

Extensive practical training is imparted to all deck ratings in whipping, seizing, splicing, various knots, bends and hitches, correct use of rope and wire stopper and securing the ropes on bitts.

**USP:**

**Eligibility:**

All Deck Ratings





# SAMUNDRA INSTITUTE OF MARITIME STUDIES

PROSPECTUS 2015-2016

## 50. General Safety Training (GST)



**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

This course is designed to familiarize all deck ratings with the safety aspects and procedures on board the ships.

**Subject Areas:**

The course covers general safety precautions and procedures followed on board especially during mooring/unmooring operations, when operating cranes, when using power tools, electrical and hydraulic equipments. Candidates are also instructed on the proper use of personal protective equipment (PPE), Emergency Escape Breathing Device (EEBD), dust mask, resuscitator, stretcher, harness and Self Contained Breathing Apparatus (SCBA).

Throughout the course, emphasis is placed on using the “Take-5” approach to assess the risks involved and to prevent any accidents.

**USP:**

**Eligibility:**

All Ratings



### 51. Enhanced Safety Training on Chemical Tankers (ESCT)

**Duration:** Two & half day

**Conducted at:** Mumbai & Lonavala

**Objective:** On completion of this Course the candidate would be able to:

Understand the accident causes and prevention

Understand the requirements of IBC & MARPOL for different operations.

Describe the requirements for preparation of loading, discharging & tank cleaning procedures

Demonstrate the manifold connection / disconnection procedures.

Demonstrate the various equipment check and leak test procedures

Demonstrate the correct procedure for donning PPE including gas tight suits

#### **Subject Areas:**

Accident Causes And Prevention

Requirements Of Ibc&Marpol For Different Operations.

Preparation Of Loading, Discharging & Tank Cleaning Procedures

Manifold Connection / Disconnection Procedures.

Equipment Check And Leak Test Procedures

Donning Ppe Including Gas Tight Suits

#### **USP:**

The Enhanced Training on Chemical tanker course is conducted to enhance the knowledge of experienced deck ratings sailing on ESM managed chemical tankers.

#### **Eligibility:**

All Ratings



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 52. Bridge Team Management - Refresher (BTM-R)

**Duration:** Two days

**Conducted at:** Mumbai

#### **Objective:**

This course aims to refresh the basic navigation and watch keeping knowledge. It also aims to build up some of the essential behavioral skills regarding bridge team management. Some of the practical skills of routine navigation are incorporated in the simulator exercises.

#### **Subject Areas:**

Analyze the importance and interpretations of regulations governing navigation.

Identify the theory and principles of passage planning and teamwork followed by practical exercises, importance of situational awareness.

Demonstrate practice of constant radius turns, wheel over line, use of turning circles and safety margins is included as part of the passage planning and exercises.

Interpret finer concepts of collision avoidance regulations and their proper application on board, especially in restricted visibility.

Describe the correct procedures for chart correction.

Anchoring procedures & Anchoring in congested waters

Bank effect, Squat effect

#### **USP:**

1 Concept building

2 Updates on the latest conventions and amendments (STCW, SOLAS, ROR)

3 Simulator Exercises on different type of ships and in different areas of the world on a Full Mission Bridge simulator

#### **Eligibility:**

Any deck officers who have obtained a certificate of competency can attend this course to enhance their knowledge and concepts.



### 53. Ship Manoeuvring Simulator (SMS)

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

This is an intense course of theory coupled with exercises on a Full Mission Bridge Simulator. Trainees are put through high traffic areas with varying conditions of current, weather and visibility so they get a better understanding of ship handling.

**Subject Areas:**

Knowledge about the principles of ship handling in various conditions and their practical application

Passage planning including planning for any contingencies

Navigational watch keeping practices, procedures and collision avoidance.

**USP:**

- 240° Full mission bridge simulator
- Chart room stocked with chart and publication for real practice
- Instructor to trainee communication
- Mooring station
- Radar station
- VHF
- Sound effect
- Upgraded ice navigation class

**Eligibility:**

This course is for management level officers. Ratings may assist in the course for steering purposes only during bridge simulator exercise.



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

PROSPECTUS 2015-2016



## 54. Auxiliary Machinery Maintenance Course (AMMC)

**Duration:** Two days

**Conducted at:** Lonavala

### Objective:

Trainees who successfully complete this course will have gained theoretical knowledge regarding condition monitoring and maintenance of various auxiliary machineries including turbocharger.

### Subject Areas:

This course is mainly a practical oriented course with minimum required lectures for emphasizing safety aspects. The course covers important aspects of personal safety, theory of condition monitoring and the practical exercise in opening, cleaning and boxing up of the equipment.

The following subject areas will be covered:

- Theory and operating principle of equipment
- Theory of condition monitoring and identifying the need for maintenance
- Planned maintenance routines
- Safe working practices
- Use of special tools
- Checks to be carried out before opening up
- Opening up, cleaning and boxing up of equipment
- Checks to be carried out after boxing up

### USP:

Experienced Trainers

### Eligibility:

All Engineers and Electrical Officers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 55. Basic Hydraulic Course (BHC)

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

This course has been designed as a prelude to the FRAMO course, to make all the ship board officers understand the basics of hydraulic systems, components and hydraulic oil quality.

**Subject Areas:**

The following subject areas will be covered:

- ▶ Introduction to hydraulics
- ▶ Description of various hydraulic components
- ▶ Hydraulic oil filtering and monitoring arrangements
- ▶ Practical sessions

**USP:**

Experienced Trainers

**Eligibility:**

All Engineers, Deck Officers and Electrical Officers





### **56. Advanced Training On Chemical Tanker Operations (ATCO)**

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

This is course aimed at officers and cadets who have already worked on chemical tankers to enhance their knowledge.

**Subject Areas:**

Hazards on Chemical Tanker  
MARPOL Annex II.  
Cargo Record Book  
FRAMO pump in details  
Familiarization with cargo tank  
Loading, unloading & various other operations in the tank room  
Tank cleaning machine, hose and cargo hose maintenance.  
Gas-Freeing  
PV-Valve – Overhaul and testing  
Wall Wash Test  
Stowage plan  
Pickling and passivation

**USP:**

- 1 A practical course primarily conducted in our unique tank room facility.
- 2 Chemical testing laboratory, not available elsewhere
- 3 Shower room
- 4 Supported by Liquid Cargo Handling Simulator

**Eligibility:**

Persons joining as a Master, Chief Officers and senior second officers on chemical tankers



### **57. Advanced Training On Oil Tanker Operations (ATOO)**

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

This course is intended for officers joining company managed oil tankers. The course consists of various levels of oil tanker training which are not covered in the Indian Administration/ IMO approved TASCOS course, with main focus on typical company managed ships. A trainee on completion of this course will be able to carry out his oil tanker operations / duties commensurate to his basic qualifications (operator level / management level) with due regards to company managed ships in a much more efficient manner.

**Subject Areas:**

Types of Tankers  
Characteristics of Cargoes  
Hazards  
Toxicity  
Hazard Control  
Safety Equipment and protection of personnel  
Interpretation of pollution Regulations in details  
Safety check List  
Oil Record Book  
Cargo carriage  
Fire Fighting  
Inert Gas Systems  
Ballast Water Management  
Helicopter Operations  
STS Operations  
Tanker Moorings

**USP:**

- 1 Details of tank room –practical course and not only classroom lectures
- 2 Supported by Liquid Cargo Handling Simulator

**Eligibility:**

Persons joining as a Master, Chief Officers and senior second officers on oil tankers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

PROSPECTUS 2015-2016



## 58. Advanced FRAMO (FRAMO - Adv.)

**Duration:** Four days

**Conducted at:** Mumbai

### Objective:

This course has been designed by FRAMO and conducted by SIMS. This course is meant for all officers on board ships fitted with FRAMO cargo pumping system. The course covers the hydraulics, controls, cargo pumping theory with associated practical.

Trouble shooting, testing alarms & interlocks are included. The cargo tank with working FRAMO hydraulic system installed at SIMS is used to demonstrate Loading, Discharging, Stripping, Emergency operation with Portable pump and Cofferdam purging operations.

### Subject Areas:

Introduction

General Arrangement and Hydraulic Circuit

Hydraulic Oil and Filtration

Control Valves

FRAMO Cargo Pump

Operation of Cargo Pumps

### USP:

1 Only one of its kinds with actual stainless steel tank and FRAMO system in our [Tank room](#)

2 Fully fitted- out cargo tank replica with FRAMO pump- FIRST IN THE WORLD

### Eligibility:

All Shipboard senior rank engineers



### 59. Cargo Operation (Oil) Senior (COS)

**Duration:** Three days

**Conducted at:** Mumbai

#### Objective:

The course will provide formalized training to consolidate and enhance experience gained from service onboard an oil tanker. The trainees who successfully complete the course will make a safer and more effective contribution to the operation and control of the cargo and ballast installation of an oil tanker which will improve ship safety and provide greater protection of the environment. In particular there will be:

- Familiarization with the equipment, instrumentation and controls used for cargo and ballast handling on oil tankers.
- A greater awareness of the need for proper pre-planning, use of checklists and time scales involved in various cargo related operations.
- An enhanced awareness to apply proper and safe procedures at all times when carrying out the various operations on board the oil tanker.
- An acquisition of experience in identifying operational problems and solving them.
- An improvement in ability to make decisions which promote safety and protect the environment.

#### Subject Areas:

Introduction

Safety moment & Introduction

Familiarization

Cargo planning

Inert Gas & Pumping theory

MARPOL

FRAMO Pump

#### USP:

- 1 Concept building
- 2 Practical sessions
- 3 Simulator Training

#### Eligibility:

The course has been specifically designed as per our customers (BP shipping) requirement. Certified deck and engineer officers required to join bp shipping managed tankers can attend the course



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 60. Breathing Apparatus Maintenance

**Duration:** One day

**Conducted at:** Mumbai

#### **Objective:**

The trainees who successfully complete this course will have gained theoretical and practical knowledge regarding BA set and BA compressor.

#### **Subject Areas:**

This is a lecture and practical-oriented course with more emphasis on practical aspects. The course covers important aspects of personnel safety, operating and maintenance instructions of BA sets and BA compressor. In particular, trainees are taught and given practical demonstration on the following topics:

- Compressed air breathing apparatus system description
- Safety instructions
- Method of donning
- Checking the apparatus for correct functioning
- Maintenance of BA set
- BA compressor description
- Operation of compressor for filling BA bottle
- Maintenance of BA compressor
- Safety instruction for operation of BA compressor

#### **USP:**

Hands on training provided on a fully functional BA set and BA compressor.

#### **Eligibility:**

Third and Fourth Engineers and all Junior Officers



### **61. International Safety Management Awareness (ISM)**

**Duration:** Two days

**Conducted at:** Mumbai

**Objective:**

This course is run for officers to familiarize with the international safety management system.

**Subject Areas:**

History of maritime legislation

Overview of ISM requirements

An overview of the Companies ISM system

Display and discussions of the ISM System –in detail (officers course only)

Group exercises on the use of the various procedures, work instructions; check lists and permits to work.

**USP:**

1 Tailor made for Company's requirement

2 Candidates fully trained on safety management system prior joining ship

**Eligibility:**

Any senior officer





# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### **62. Port State Control - Bulk Carrier (PSC-BC)**

**Duration:** One day

**Conducted at:** Mumbai

**Objective:**

This course is designed to teach the candidates the purpose of Port State Control (PSC) Inspections and provide guidance on the preparation and conduct of such inspections.

Officers on completion of this course shall achieve a clear understanding of the Port State control Inspections: prepare for the same, effectively have them carried out on board and correctly follow up on the inspection reports especially any reported deficiencies.

**Subject Areas:**

Introduction to PSC Circulars, preparing the vessel for PSC inspection

USCG and ISPS requirements

PSC Inspection Checklist

IMO and INTERCARGO guidelines for Bulk carriers

BIMCO guidelines for USCG inspection

IOPP certificate and MARPOL requirement,

Procedure for filling engine room oil record book as per MARPOL Annex – I,

Common deficiencies found on board Bulk carrier on PSC inspection.

**USP:**

Experienced faculty members conduct this course

**Eligibility:**

All officers



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### **63. Teamwork (TEAMWORK)**

#### **Duration**

1 day

#### **Course Objectives**

This course aims to help teams work more effectively and efficiently.

#### **Course Outline**

The following would be covered:

Introspect personal behavior – insight into those actions that enhance / obstruct team work

Insights to various aspects of team work – characteristics of effective teams, obstacles and tools to overcome friction in teams

#### **Eligibility**

All ship board personnel



## **64. Computer Based Training (SEAGULL)**

**Duration:** Own pace

### **Objectives**

SIMS has tied up with SEAGULL AS, Norway to provide Computer Based Training (CBT) in various subjects ranging from navigation, marine engineering, seamanship, safety and pollution prevention, to ISM code, ship security, PSC inspections etc. It provides standardization of training when training occurs in several work locations simultaneously.

The benefits of CBT include:

- The computer actively engages the trainee in the training process, providing increased trainee satisfaction.
- Trainees work at their own pace
- CBT can sequence training to match the trainee's needs. The computer can always match the trainee's schedule. CBT can reach trainees outside the traditional classroom, providing instruction on the job.
- CBT provides immediate feedback to trainees on their progress.
- It provides management systems for tracking trainees' progress and location.
- It provides on-line testing to match a trainee with needed training. It provides consistency of training in terms of quality and information presented.

### **Eligibility**

All



# SAMUNDRA INSTITUTE OF MARITIME STUDIES

## PROSPECTUS 2015-2016



### 65. Maritime Law Course (M-LAW)

**Duration:** Three days

**Conducted at:** Mumbai

**Objective:**

Maritime law concerns navigation and overseas commerce. Because ships sail from nation to nation overseas that no nation owns, nations need to seek agreement over customs related regulation to shipping.

**Subject Areas:**

Admiralty Law & Jurisdiction procedures  
Safety regulations in navigation, liabilities and limitation of liability  
Assistance at sea and in ports  
Procedure and evidence in arbitration  
Contracts of affreightment and voyage & time charter parties  
The bill of lading contract and functions  
Legal cultures and criminal justice policy  
Elements of insurance & the insurance contract and its terms  
Claims process  
Law of the Sea (UNCLOS) and its impact  
COGSA 1992  
Indemnity, subrogation and contribution  
Piracy & Criminalization of the seafarers  
Case studies on various aspects of local regulations

**USP:**

Experienced faculty members conduct this course

**Eligibility:**

Maritime Lawyers  
P&I Clubs' Managers and Directors  
Insurance Brokers, Underwriters, Charterers, Claims managers  
Senior Marine Officers, Ship-owners & Shipbrokers  
Salvage Project Managers and Directors