



## Providing Qualified Port Workers in Accordance with Competency-based framework for Working in Ports Sector



**Dr. Alaa M. Morsy**



**Associate Professor, Vice Dean, Port Training Institute  
Arab Academy For Science, Technology, and Maritime Transport**

# Port Training Institute

## Vision and Mission



Who  
Are  
We ?



Fulfilling all the training needs for all the personnel working in seaports and maritime transport sector.

- **Training** the human resources to work in maritime transport & seaports sectors either employees or fresh graduate without experience
- **Developing** its educational & training facilities to cope with technology development.



## The Adoption of ILO Guidelines on Training in the Port Sector Geneva - 2012

Competency-based framework for port worker training methods designed to:

- **Protect and promote health and safety in ports;**
- **Improve the skills development of port workers and enhance their professional status and welfare;**
- **Secure the greatest possible social and economic advantages from advanced methods of cargo handling and other port operations;**
- **Improve cargo handling efficiency and enhance the quality of service to port clients; and**
- **Protect the natural environment in and around the port area, promote decent work and sustainable jobs in ports.**



The competent person is someone who:

- (a) Has certain **k**nowledge, **S**kills and **A**ttitudes (KSA)
- (b) Perform specified tasks
- (c) With standard of performance expected in
- (d) Specified workplace under
- (e) Conditions of uncertainty and change.

**We need to create recognized qualifications that meet the needs and aspirations of the workforce, the requirements of the employer and the demands of the customer.**



## Problem Statement

- ✓ Are our delivered courses within the updated international training standards for Competency-based framework ?
- ✓ Developing , maritime and logistics mega projects in Mediterranean need well qualified human capacities
- ✓ Did we have regulations/ license for port workers promotions / Designation ? like that in Maritime sector (IMO Conventions)
- ✓ Did We have Assessment tool for each competence in port jobs? Also changing the world of port work

## The Adoption of ILO Guidelines on Training in the Port Sector Geneva - 2011

- ✓ The Guidelines set out the general approach and key processes for competency-based training in the port sector; they are not designed to provide a detailed syllabus for training or training materials.



- ✓ The latter are available from other sources, such as the ILO's Port worker Development Program (PDP) or materials provided by well-established training providers in the industry

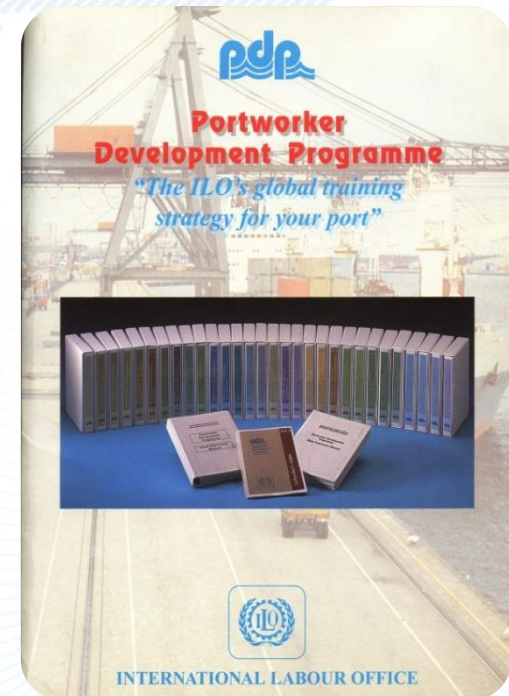


## International Standards as Technical Reference

# Portworker Development Programs (PDP)

The PDP consists of 30 training units covering:

- Cargo Handling Operations
- Safety
- Supervision
- Management
- Environmental Engineering
- Inspection



## The Main Objective of Preparing the Competence Port Worker Guidelines

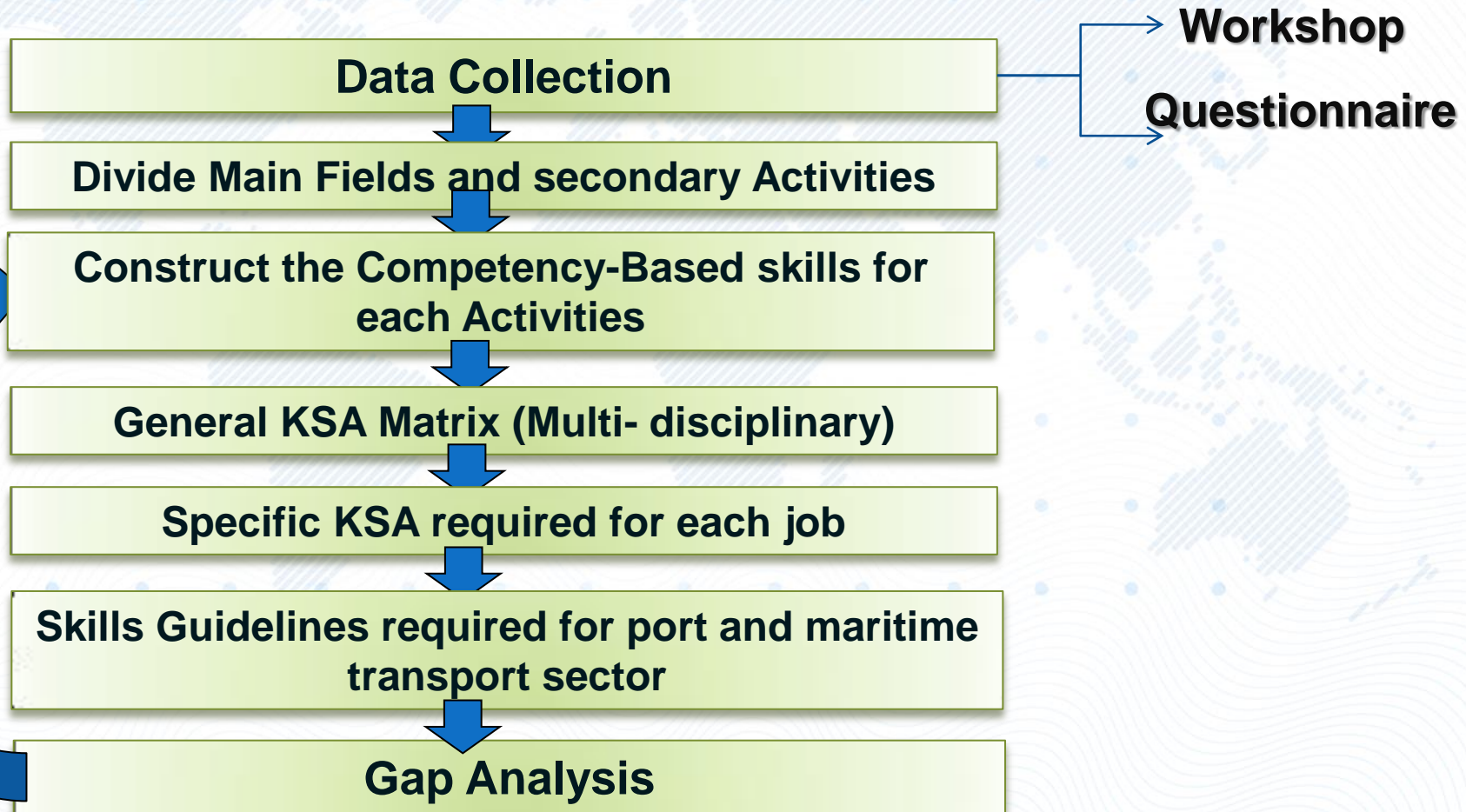
1. The Promote the quality of customer service to give more Satisfaction for provided service
2. International competition for the port and advanced port service
3. Protect the natural environment in & out the port & protect health & safety
4. Developing & Enhancing the Port workers Skills







# Building Skills Guidelines required for port and maritime transport sector ( Research Methodology )





## Data Collection

### Name of company and organizations sent their structural organizations

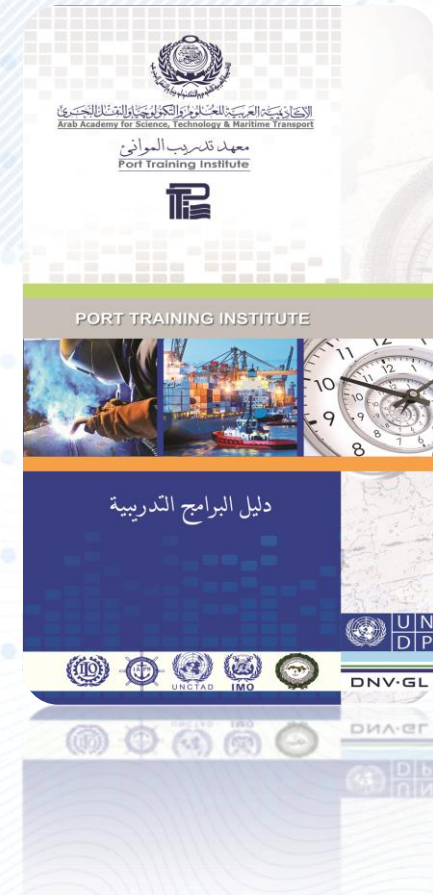
- PortSaid Port Authority
- Red Sea Port Authority
- Damietta Port Authority
- Canal shipping agencies company
- General Egyptian Warehouses Company
- AbouSimbel & Tiba For Shipping Agencies
- Alexandria Container and Cargo Handling
- Alexandria Port Authority
- Maritime transport sector
- Sea Ports Corporation Sudan
- Holding company for maritime and land transport
- Egyptian authority for maritime safety (eafms)
- Arab Company for charging and discharging
- Memphis Shipping Ag. Co
- The Egyptian marine supply & contracting co.
- Port Said Container & Cargo Handling Co.
- SUEZ MECHANICAL STEVEDORING Co.
- Damietta Container Handling Company
- Suez Canal Container Terminal- SCCT





## Main Fields and Secondary Activities

1. Research Sustainable Development
2. Port & Logistics Operation
3. Maritime Operation
4. Management & Financial
5. Engineering & Maintenance
6. IT System
7. Vocational Health & Safety





## Main Fields and Secondary Activities



### ❑ Marine Service Sector

- Marine Operation
- Pollution Fighting

### ❑ Port operation logistics Sector

- Cargo handling
- Passenger traffic
- Warehousing

### ❑ Engineering and Maintains sector

- Engineers
- Technicians
- Operators

### ❑ Computer and information Technology Sector

### ❑ Management, Supervision, and Financial Sector.

| Field                                         | Field Code | Main Activities Code | Secondary Activities Code |
|-----------------------------------------------|------------|----------------------|---------------------------|
| Research Sustainable Development              | SP01       | SP01.1               | SP01.1.1                  |
| Port operation logistics Sector               | SP02       | SP02.1               | SP02.1.1                  |
| Maritime Operation                            | SP03       | SP03.1               | SP03.1.1                  |
| Management, Supervision, and Financial Sector | SP04       | SP04.1               | SP04.1.1                  |
| Engineering and Maintains sector              | SP05       | SP05.1               | SP05.1.1                  |
| Computer and information Technology Sector    | SP06       | SP06.1               | SP06.1.1                  |
| Vocational Health & Safety                    | SP07       | SP07.1               | SP07.1.1                  |

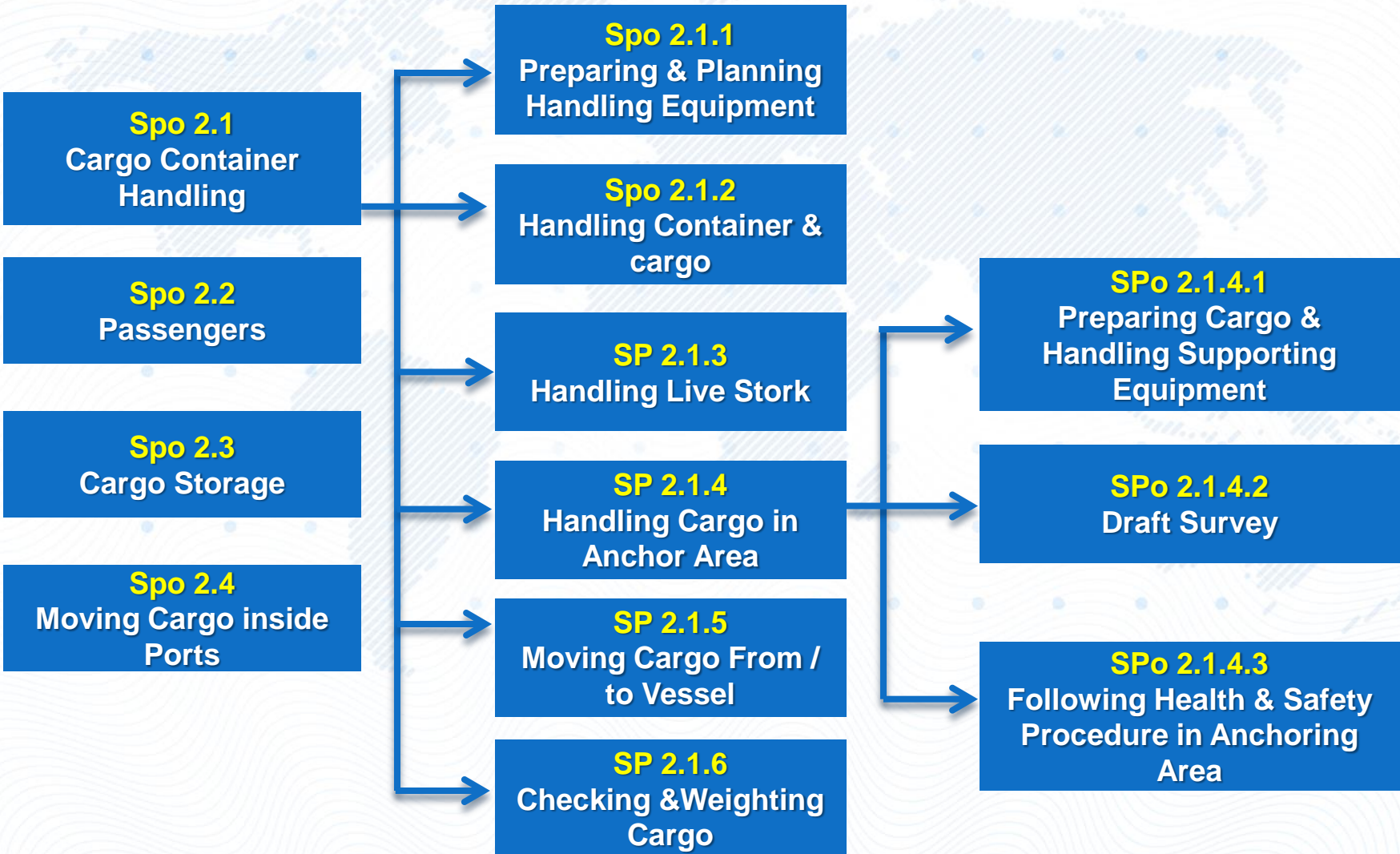


## Researching & Development Field (SP01)



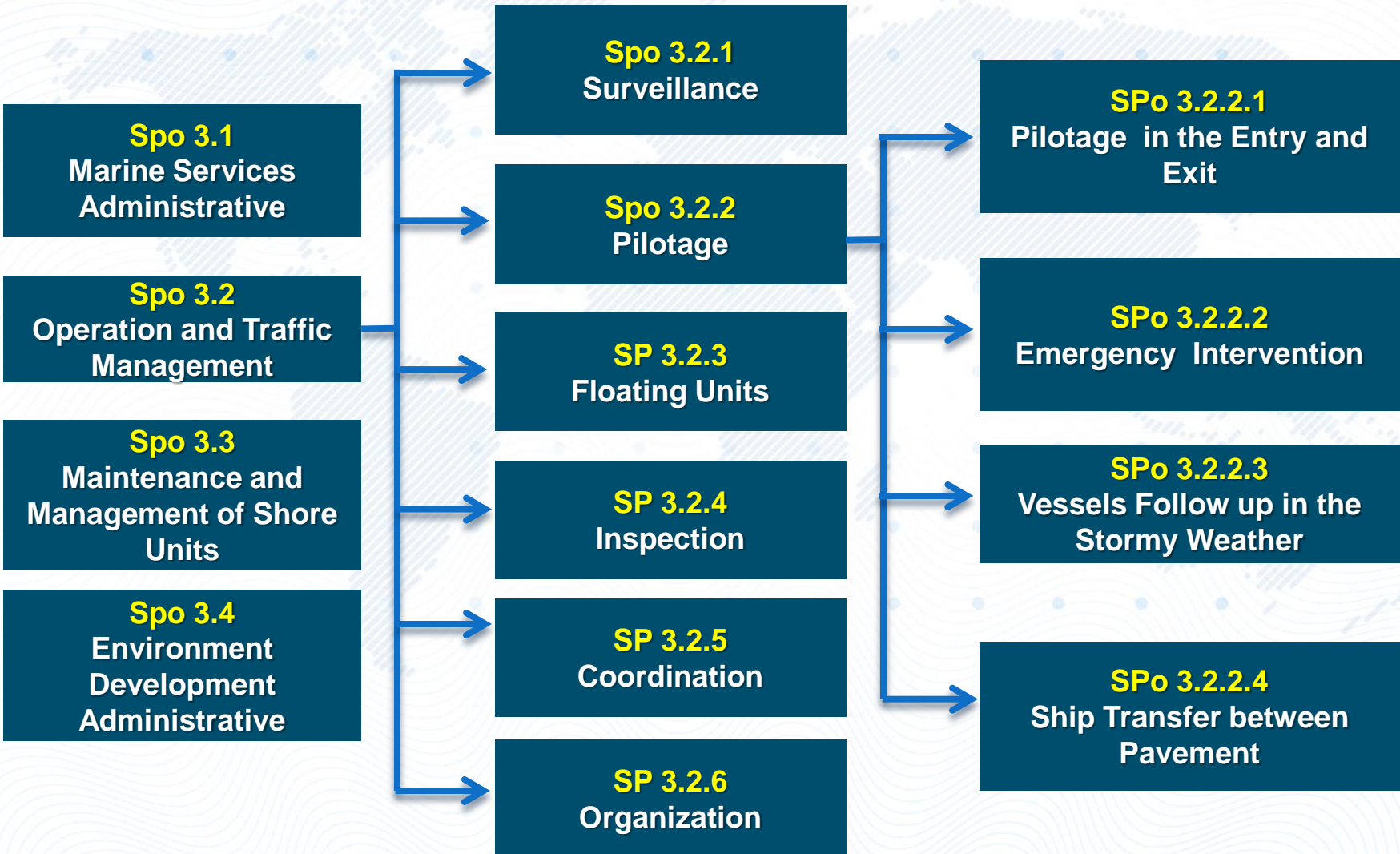


## Ports & Logistics Field (SP02)



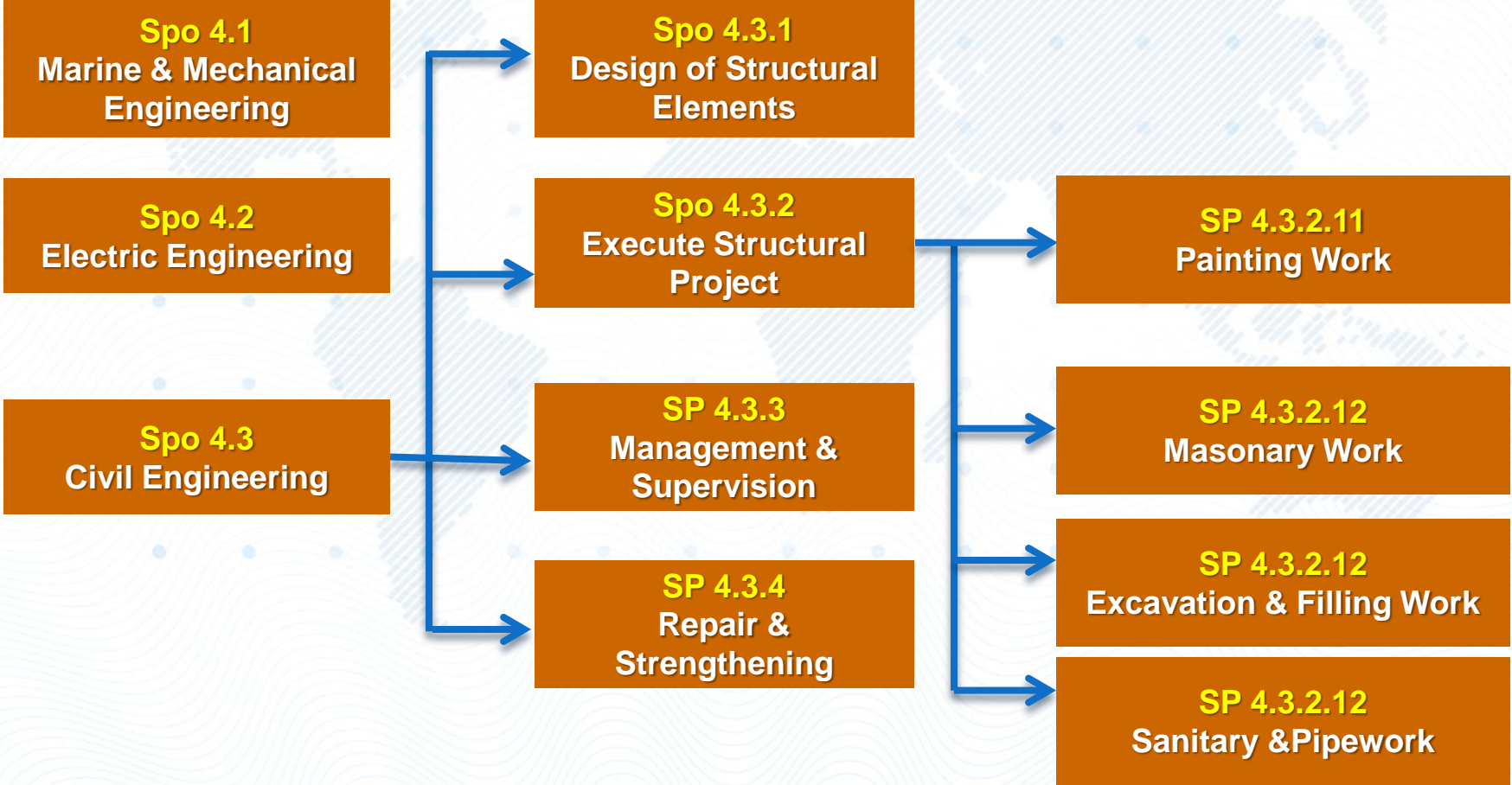


## Maritime Operation Field (SP03)





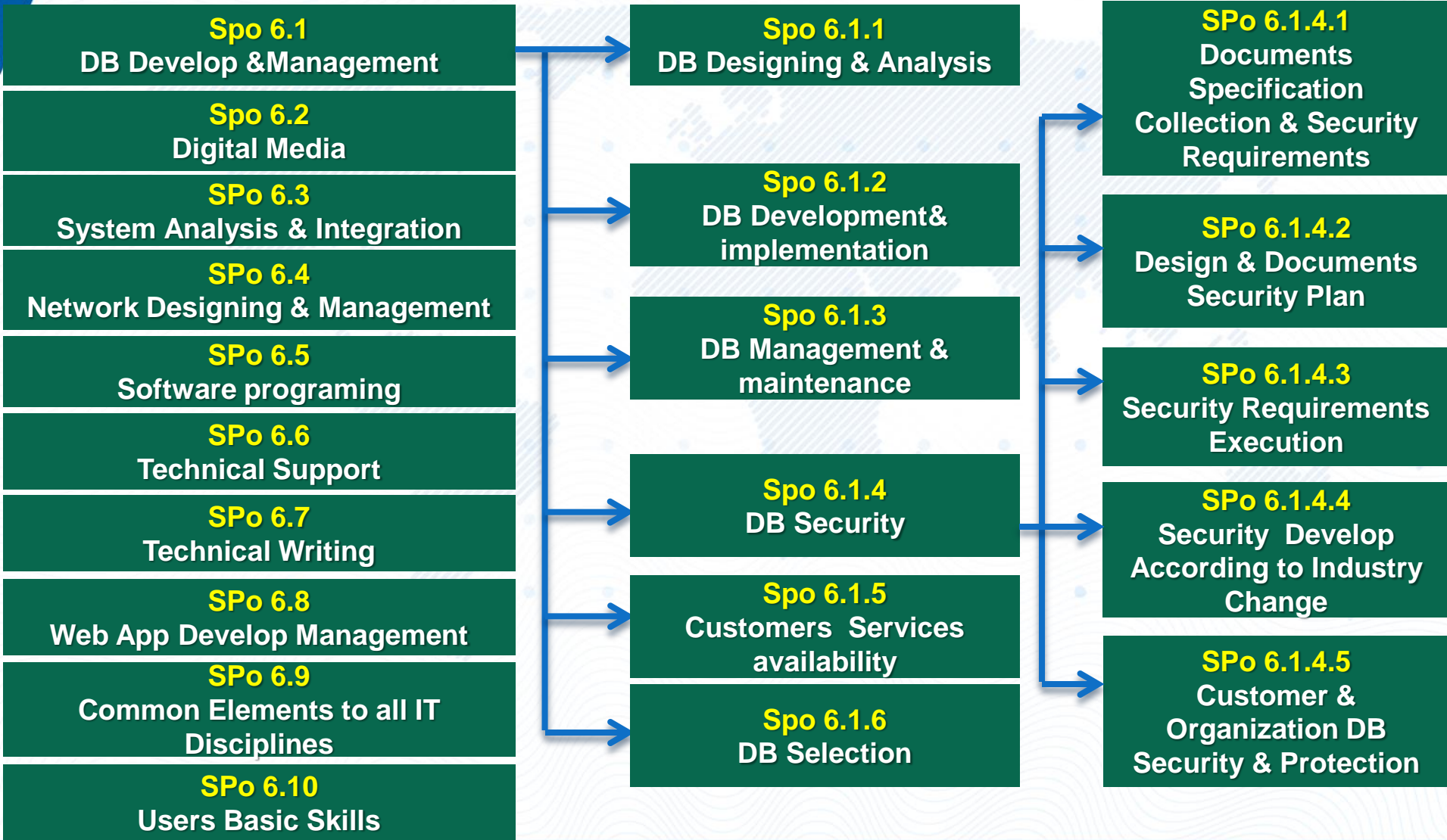
## Engineering Field (SP04)







# Information Technology & Communication Field (SP06)





## Safety & Environmental Protection & Maritime Security (SP07)

**Spo 7**  
Safety & Environment  
Protection

**Spo 7.1**  
Occupational  
Healthy & Safety

**Spo 7.2**  
Environment  
Protection

**Spo 7.3**  
Maritime  
Security

**Spo 7.1.1**  
Lows of Regulation Identifying

**Spo 7.1.2**  
Develop Healthy & Safety Policies

**Spo 7.1.3**  
Risk Assessment to all Operations in  
Ports

**Spo 7.1.4**  
Develop Procedures & Work  
Implementations

**Spo 7.1.5**  
Establishment of Emergency plan for  
the Ports

**Spo 7.1.6**  
Procedures Implementation  
Measurers Monitoring

**Spo 7.1.7**  
Personal Training the Implementation  
of safety

**Spo 7.1.6**  
Allocation of Safety & Protection  
Equipment



## Construct the Competency-Based skills according to the International Standards

- ✓ **Advisory Committee for education and training in cooperation with institute stockholders**
- ✓ **Communicate with our constituencies regarding their requirements and their future needs**
- ✓ **Mapping all PTI courses to match with the knowledge, skills and Attitude according to PDP modules**



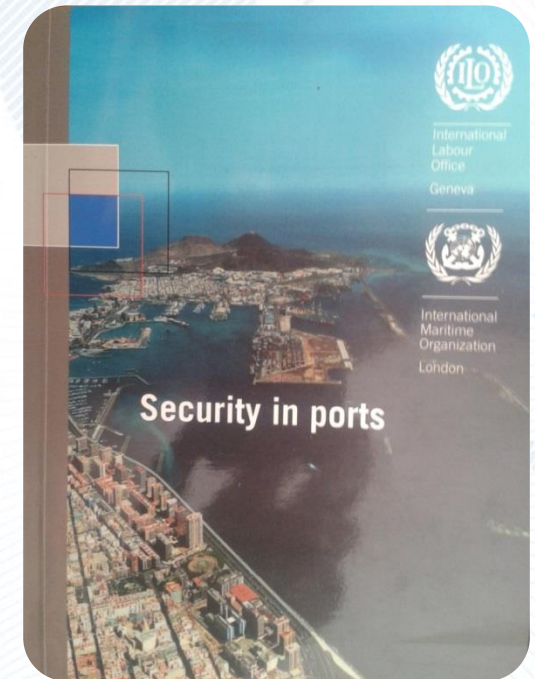
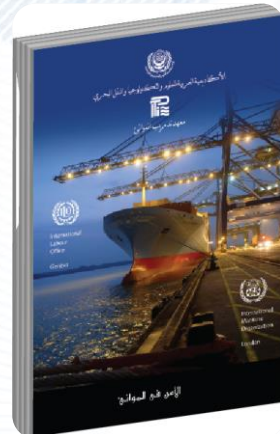


## International Standards as Technical Reference

**PTI assigned MOU with ILO to translate and publish exclusively the latest ILO publications e.g;**

**1- Safety and health in ports. ILO code of practice**

**2-Security in ports. ILO and IMO code of practice**





## Construct the Competency-Based skills for each Activities Task Analysis into knowledge / skills / behavior model

### Second Stage / Functional Skills Map

|                                              |                                                                                                       |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>Job Field :</b>                           |                                                                                                       |
| <b>Main Activities :</b>                     | <b>Secondary Activities :</b>                                                                         |
| <b>Competence :</b>                          | <b>Level :</b>                                                                                        |
| <b>General Objective :</b>                   |                                                                                                       |
| <b>Scope of Work – Tools :</b>               | <b>Scope of Work – Documentation :</b>                                                                |
| <b>Requirement Rating</b>                    |                                                                                                       |
|                                              | <b>Knowledge :</b><br><br><b>Skills :</b><br><br><b>Attitudes :</b><br><br><b>Assessment Method :</b> |
| G- general skills for all field :            |                                                                                                       |
| S- Specification skills for the Activities : |                                                                                                       |
| P- Professional Skills for Competence :      |                                                                                                       |



## Example : Loading and unloading

- ✓ Health and safety procedure
- ✓ Simple English for port activities and operations

*General*

- ✓ Applying International pollution treatment
- ✓ Dealing with hazard cargo and hazard remarks
- ✓ Require documentation cycle for cargo operation

*Specific*

- ✓ Receiving cargo
- ✓ Transfer cargo from operations zone to warehouse and vice versa
- ✓ Moving cargo manually
- ✓ Segregating cargo and repacking

*Professional*



## Specific K.S.A. required for each job

|               |                                                               |
|---------------|---------------------------------------------------------------|
| <u>COO-01</u> | <b>Conducting general duties in the container environment</b> |
|---------------|---------------------------------------------------------------|

|      |                                                              |
|------|--------------------------------------------------------------|
|      | <b>Outputs that must be produced, provided or delivered:</b> |
| T-01 | Completed duties                                             |

|      |                                                       |
|------|-------------------------------------------------------|
|      | <b>Skills that can be demonstrated and observed:</b>  |
| S-01 | Identifying and readying equipment for specific tasks |
| S-02 | Assisting with basic operational activities           |
| S-03 | Conducting routine inspections on containerized goods |
| S-04 | Conducting housekeeping in the works area             |
| S-05 | Reporting daily operational occurrences               |
| S-06 | Adhering to safety standards                          |

|      |                                                                                                                             |
|------|-----------------------------------------------------------------------------------------------------------------------------|
|      | <b>Knowledge that must be understood and explained:</b>                                                                     |
| K-01 | What are the standard tools and equipment used during normal operations?                                                    |
| K-02 | What precautions must be taken when using these tools/equipment?                                                            |
| K-03 | What will the implications be if the tools and equipment are not correctly cleaned, maintained and stored?                  |
| K-04 | What should be checked when conducting routine inspections on containerized goods?                                          |
| K-05 | What precautions must be taken when working on or around containers?                                                        |
| K-06 | What is a safety hazard and why should any safety hazards immediately be reported to the supervisor?                        |
| K-07 | What general safety precautions should be taken when assisting with general operational activities in a container terminal? |
| K-08 | Why is it important to ensure that the works area is clean and tidy at all times?                                           |
| K-09 | What personal protective equipment should be worn during any normal operations?                                             |

# Output

الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري  
Arab Academy for Science, Technology & Maritime Transport



معهد تدريب الموانئ  
Port Training Institute



العنوان : معهد تدريب الموانئ  
ميناء الاسكندرية - بجوار باب 27  
تليفون : 4865087-4841128-4810004 داخل 251  
موبايل : 01001708914  
البريد الإلكتروني : info@pti-aast.org  
الموقع الإلكتروني : www.pti-aast.org

Work: دليل المهارات المطلوبة لوظائف  
قطاع النقل البحري والموانئ







## International Cooperation in Training Field



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري  
Arab Academy for Science, Technology & Maritime Transport



DIPLOMA IN PORT & LOGISTICS  
A JOINT COURSE:  
AASMT/PTI & Fundación Valenciaport

### Contacts :

Port Training Institute:  
Alexandria Port - Beside Gate No. 27  
P.O. Box 123 Sidi Gaber - Alexandria  
Tel: (+20 3) 4810004 - 4865087  
Fax: (+20 3) 4829930  
e-mail: info@pti-aast.org  
Website: www.pti-aast.org

Fundación Valenciaport  
Sede APV, Fase III,  
Avda. del Muelle del Turia, s/n  
46024 Valencia - Spain  
Tel.: +34 96 393 94 00  
Fax.: +34 96 393 94 61  
E-mail:  
formacion@fundacion.valenciaport





## Course Overview:

The course will last two weeks. One week in Alexandria and one week in Valencia, the objective of the first week is to provide the trainee with a complete overview of the key port supply chain and logistics operations that a port authority with different management level has to deal with, the second week of the course to be held in Valencia, The objective of the second week is to provide the students with a comprehensive and updated overview of the key issues that a port manager has to deal with.

The students will learn directly from the experience and knowledge of managers from the Port of Valencia, the first port in the Mediterranean (data for 2015) In this sense, ten modules have been identified for a total of 60 class hours with a 10 days.

### The first week:

- Module 1: Global Supply Chain
- Module 2: Port Management & Operations
- Module 3: integrated port logistics system
- Module 4: improving port navigational decision Making
- Module 5: Electronics Port Management



### The second week:

- Module 1: Port Strategy and Marketing
- Module 2: Quality and Efficiency in Port Operations
- Module 3: Smart Ports
- Module 4: Green Ports
- Module 5: Safe and Secure Ports



### Besides, a visit to the Port and one Terminal is also included.

Each module will be supervised by a relevant, experienced (in teaching) and high level directive staff member from either AASTMT-PTI or Fundación Valenciaport or from the Port Authority of Valencia. Staff from port terminals or other companies might also intervene as teachers



### Target group:

The maximum number of trainees is 25 in order to maintain educational high quality of standards.

### Services included in the rate:

- Hotel 4\* (including breakfast and dinner): the hotel is only 10 minutes walking distance from the Port
- Lunches and coffee breaks during the class sessions
- Teaching material (mainly digital)
- Personal Follow-up of each student during the course
- Diploma awarded by AASTMT and Valenciaport Foundation (printing) during the last day of the course
- City tour
- Stationary: pens, book notes, folders, etc.



### Course Rate: 1500 €



## Services included in the rate

- Hotel 4\* (including breakfast and dinner)
- Lunches and coffee breaks during the class sessions
- Teaching material (mainly digital)
- Personal Follow-up of each student during the course
- Diploma awarded by AASTMT and Valenciaport Foundation
- City tour
- Stationary: pens, book notes, folders, etc.

**Course Duration:** 50 hours 2weeks

**Course Rate:** 1500 €

الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري  
**Arab Academy for Science, Technology & Maritime Transport**



Contacts :.

### **Port Training Institute:**

Alexandria Port - Beside Gate No. 27  
P.O. Box 123 Sidi Gaber - Alexandria  
Tel: (+20 3) 4810004 - 4865087  
Fax: (+20 3) 4829930  
e-mail: info@pti-aast.org  
Website: www.pti-aast.org

### **Fundación Valenciaport**

Sede APV, Fase III,  
Avda. del Muelle del Turia, s/n  
46024 Valencia - Spain  
Tel.: +34 96 393 94 00  
Fax.: +34 96 393 94 61  
E-mail:  
formacion@fundacion.valenciaport.com

**DIPLOMA IN**

**DEVELOPING STRATEGY & MARKETING  
PLAN FOR PORT SERVICES**



معهد تدريب الموانئ  
Port Training Institute



FUNDACIÓN  
Valenciaport

**A JOINT COURSE:  
AASTMT-PTI & VALENCIA PORT FOUNDATION**



## INTRODUCTION

The lack of alignment between strategy development and the execution of marketing strategies is one of the main causes of low performance and loss of competitiveness in any company. This is not different in the port sector. Ports services involve different areas of knowledge and require interaction with multiple stakeholders, making this alignment even more challenging. To succeed in positioning their services correctly in the current uncertain economic scenario, with competition increasingly fierce, ports with high performance establish a clear and structured process for developing, executing and controlling their strategic and marketing actions. Given this context, in this course port executives will learn the best cases, methodologies and most used tools that could be applied to their ports.

## OBJECTIVES

Participants in this course will be able to:

- Get a deeper knowledge about the functioning of the Port Industry and the importance of Port services as a part of the international trade flow
- Learn how to develop a Strategic and Marketing Plan for Port Services
- Understand the way Port Services Marketing is organized
- Identify the main customers for port services providers
- Learn how to set the competitive position of the port services provider within the market and its competitors
- Develop a customer satisfaction strategy
- Measure port services performance and its contribution to customer satisfaction

## Participants

This program is designed for managers and professionals who want a firmer grasp of strategy, marketing, business development and performance measurement applied to ports. Participants might include:

- Professionals who are new to a strategy/marketing.
- Port executives who want to improve their education skills with port strategy and marketing up to date tools and cases.
- Decision makers in other functions—such as sales, finance, product management, product development, or general management—who want to work more effectively with their company's strategy & marketing team.

Course Time: 100 Hours (4 Weeks)

## CONTENTS

### Module 1

#### The Strategy: Competitive Position

- Importance of port services and its role in development of international trade
- Port governance and management models
- The organization of the port services market
- Port Industry. Global and Local trends
- Understand your port business model
- Developing and executing your port strategic plan

### Module 2

#### Marketing in the Port Industry

- The Service.
- The customer of a port
- Port competitiveness as an input for your market strategy
- Developing your strategic Marketing plan.
- Cases of port positioning and branding
- Best practices in port marketing and promotion
- Strategic Port Pricing.

### Module 3

#### New business development

- Analyze consumer behavior for specific markets
- Identifying new Markets.
- Establish & adjust the marketing mix
- Interpret port market trends & developments
- Planning port market research

### Module 4

#### Port performance and evaluation of marketing strategies

- How to measure Port Performance. Benchmarking.
- Service Level Agreements.
- Service Control. Cost Benefit Analysis.
- Risk Management.
- Customer Satisfaction.





### Who should attend?

The main objective of the course is to help the individuals that will be involved in the planning and compliance with the Convention. The participants will have a unique opportunity to become familiar with the Convention and to know its impacts on the maritime port sector.

### Situation in Arabic Countries:

Once it has entered into force, the Convention and its legal constraints will apply to all ports worldwide. The thematic is already a challenge for Arabic ports and states. As of May 2016, three Arabic countries have already ratified the Convention, demonstrating a clear concern for the management of Ballast Water: Egypt, Lebanon, Morocco and Tunisia.

### Contacts :

**Port Training Institute:**  
Alexandria Port - Beside Gate No. 27  
P.O. Box 123 Sidi Gaber - Alexandria  
Tel: (+20 3) 4810004 - 4865087  
Fax: (+20 3) 4829930  
e-mail: info@pti-aast.org  
Website: www.pti-aast.org

**Fundación Valenciaport**  
Sede APV, Fase III,  
Avda. del Muelle del Turia, s/n  
46024 Valencia - Spain  
Tel.: +34 96 393 94 00  
Fax.: +34 96 393 94 61  
E-mail:  
formacion@fundacion.valenciaport.



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري  
**Arab Academy for Science, Technology & Maritime Transport**

FUNDACIÓN  
**valenciaport**

معهد لتدريب الموانئ  
**Port Training Institute**



An Introduction

to

**Ballast Water Management**



### Ballast Water Management:.

While ballast water is essential for safe and efficient modern shipping operations (stabilisation), it may pose serious ecological, economic and health problems due to the multitude of marine species that could be transported in the ships' ballast water.



These include bacteria, microbes, small invertebrates, eggs, cysts and larvae of various marine species. The transferred species may be able to survive in the newly environment to establish a reproductive population, out-competing native species and thus causing negative disruptions and changes to established food webs (IMO, 2016). The spread of invasive species has been recognised as one of the greatest threats to the ecological and the economic wellbeing of the planet. In response to this threat, the international community worked hard to approve the Ballast Water Management Convention (2004) which is now in its very last ratification phases and should be entered into force in the coming years.

### Objectives of the course:.



The ratification and further entry into force of the Ballast Water Management International Convention (BWMC) will mean an important step forward in the control of invasive species propagation. This course will give the trainees a global overview of the Convention (current situation) and explain the impacts the implementation will have on shipping lines, shipyards, ports and other stakeholders of the maritime industry.

### Contents:.

- » Awareness Raising
- » Ballast Water Management
- » Operational Risks
- » Legal Framework
- » Handbook on Ballast Water Management



### The role of Public Administration :.

The course, conceived and given by Lloyd's Register (LR) and Fundación Valenciaport, will address a wide range of issues such as the impacts linked to the propagation of invasive species, the role that will assume the different key actors in the implementation of the Convention, the reference legal framework and the responsibility of the Authorities, paying special attention to:

- » The definition of the mechanisms that will enable an harmonised and coordinated implementation of the Convention between the relevant administrations and other key actors, including the analysis of the information that has to be shared.
- » The definition of the requirements for the drafting and implementation of Ballast Water Management plans tailored made for every involved company and institution.

### Trainee's profile:.

Shipping Lines: Management (Chief Executive Officer -CEO-, Chief Technical Director -CTO-); Fleet (Chief Operational Officer -COO-, Fleet Manager -FM-, Inspectors, Overseers); Management Systems (Quality Direction, Designated Person Ashore -DPA-, Chief Security Officer -CSO-); Commercial (Commercial Direction, Marketing Direction).

Shipyards: Chief Executive Officer -CEO-, Chief Technical Officer -CTO-; Production. Ports: Environment and Sustainability  
Other: Technical offices; Garbage Collectors; Equipment providers, Naval Engineers, etc.  
Admission Requirements: Basic knowledge of ports/maritime sector.

Duration: 4 days  
Price:





## Valencia - PTI Diploma Cooperation

01

### GREEN PORTS Diploma

Topics:

- Change management planning for ports.
- Sustainable development in ports.
- Integrated environmental management in ports industry.
- Energy policies & efficiency in ports.
- Safety and security of green ports.
- Effective green port operations at terminals & ports.
- Balancing environmental challenges with economic demands.

Feb. 2017

03

### Diploma in Human Resources in ports

Topics :

- Modern trends in human resource management
- Job Analysis & Job Description
- Human Resources Planning
- Recruitment and Selection
- Performance Appraisal
- Human Resources Development
- Motivation and incentives
- Employee Problem Solving

Dec. 2017

04

### MANAGING STRATEGIC COMPETITION IN PORTS AND MARITIME TRADE.

Topics :

- The Port and Maritime Industry and Changing Global Trade Environment
- The Global Market and the Changing Role of Digital Technologies
- International Competition and the Rule of Law in Maritime Trade:- Key Business Strategy Concepts
- Strategic Marketing in Ports and Maritime Logistics
- Delivering Competitive Advantage through Strategic Marketing
- Critical Thinking/Reasoning and Appraisal of Marketing Strategies in a Competitive Environment
- Global Perspective of Contemporary Marketing Practice in International Shipping
- Market Development Intelligence (MDI) for Pro-active Positioning in Competition
- Strategic Marketing & Competition Surgery:- a one to one problem-solving consultancy service for course participants to proffer strategic solutions to marketing and competition problems

Aug. 2017

02

### EMERGENT TECHNOLOGIES FOR PORTS Diploma

Topics :

- Internet of Things
- Wearable Technologies
- Big Data Analytics
- Utilizing Emergent Technology

May 2017

Time: 50 Hours (Two Week)





Enjoy you spring in Alexandria 😊



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري  
Arab Academy for Science, Technology & Maritime Transport



The 6<sup>th</sup> International Maritime Transport and logistics Conference

# GLOBAL INTEGRATION IN PORTS FUTURE OPPORTUNITIES

19 - 21 March 2017 Hilton Green Plaza hotel - Alexandria

On-line speaker registration is now available on-line.

[more details...](#)

<http://www.marlog-aast.org/2017/>





# Conclusion

- ❑ **Introduce training courses for training of trainees (TOT) to explain the competency based training system and the trainees assessment method**
- ❑ **We need Approval for Skill Standard for port worker for all port and maritime transport jobs to be obligatory for both fresh workers need to enroll in certain job or already port workers need promotions**
- ❑ **We need to increase cooperation between ports training providers in field of exchange lectures and joint courses**



Dr.  
*Alaa Morsy*



**Thank you**

