

ONBOARD

CURRICULUM FOR TECHNICIAN ON PORTS AND LOGISTICS WITH DIGITAL SKILLS | EQF 4

DESIGN OF THE
FUNCTIONAL PROFILES
AND JOIN CURRICULA
FOR THE PORTS AND
LOGISTICS SECTOR

www.onboard-project.eu



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CURRICULA

“Technician on ports and logistics with Digital Skills”

EDUCATION AND TRAINING AREA: 840 – Transport Services

EQF (EUROPEAN QUALIFICATION FRAMEWORK): 4

NQF (NATIONAL QUALIFICATION FRAMEWORK - IRELAND): 5

NQF (NATIONAL QUALIFICATION FRAMEWORK - PORTUGAL): 4

NQF (NATIONAL QUALIFICATION FRAMEWORK – UNITED KINGDOM): 4



Technician on ports and logistics with digital skills

Curricula

MAPPING OF THE TRAINING UNITS (TU):

FUNCTIONAL AREAS	N.º TU	TRAINING UNITS	HOURS
Computing (COM) 350 hours	001	NETWORK - DESIGN AND ADMINISTRATION	50
	002	COMPUTING ARCHITECTURE ON WEB ENVIRONMENT	50
	003	MANAGEMENT INFORMATION SYSTEM	50
	004	PERSONAL PRODUCTIVITY TOOLS	25
	005	SPREADSHEET - LEVEL I	25
	006	SPREADSHEET – ADVANCED FEATURES	25
	007	DATABASE MODELLING AND ADMINISTRATION	50
	008	E-BUSINESS LANGUAGES	50
	009	INFORMATION SAFETY AND SECURITY (WEB ENVIRONMENT)	25
Management, Ports, and Logistics (MPL) 600 hours	001	GENERAL MANAGEMENT	50
	002	TRANSPORTATION AND LOGISTICS SYSTEM	50
	003	TRANSPORTATION AND LOGISTICS TECHNOLOGIES	50
	004	TRANSPORT ECONOMICS	50
	005	GLOBAL MARKET AND INTERNATIONAL TRADE	50
	006	TRANSPORT LAW	50
	007	DOCUMENTATION AND QUALITY MANAGEMENT IN PORTS AND LOGISTICS	50
	008	OPERATIONAL MANAGEMENT IN LOGISTIC CHAIN	50
	009	SAFETY AND ENVIRONMENT IN TRANSPORTS AND LOGISTICS	50
	010	QUALITY MANAGEMENT - SERVICES AREA	50
	011	MANAGEMENT INFORMATION SYSTEM APPLIED TO LOGISTICS AND PORTS	50
	012	INFORMATION SYSTEMS APPLICATIONS IN PORTS AND LOGISTICS	50
Soft skills (SOS) 125 hours	001	COMMUNICATION AND ORGANIZATIONAL BEHAVIOUR	25
	002	TEAM MANAGEMENT	25
	003	TIME MANAGEMENT AND WORK ORGANIZATION	25
	004	PROFILE AND POTENTIAL OF THE ENTREPRENEUR - DIAGNOSIS / DEVELOPMENT	25
	005	ENVIRONMENT, SAFETY, HYGIENE AND HEALTH AT WORK - BASIC CONCEPTS	25

FORM OF THE TRAINING UNIT

NAME OF THE TU	NETWORK - DESIGN AND ADMINISTRATION				
NUMBER OF THE TU	COM	001		WORKLOAD:	50 Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- A good network Design skills.
- Define an installation plan for a network implementation.
- Knowledge of network installation and administration
- Perform the procedures necessary to administer a local area ant Internet network.

CONTENTS

1. Basic concepts

- 1.1. Network model definition
- 1.2. Units of measure
- 1.3. Decimal, Binary and Hexadecimal Numbering
- 1.4. Convert Decimal to Binary
- 1.5. Convert Binary to Decimal
- 1.6. Convert Decimal to Hexadecimal
- 1.7. Convert Hexadecimal to Decimal
- 1.8. Exercise Binary, Decimal and Hexadecimal Conversion
- 1.9. Open System Configuration
- 1.10. Ethernet Architecture
- 1.11. Internet Architecture

2. The OSI Model (Open System Interconnection)

- 2.1. Layer 1 – Physical Layer
- 2.2. Layer 2 – Data Link Layer
- 2.3. Layer 3– Network Layer
- 2.4. Layer 4– Transport Layer
- 2.5. Layer 5 – Session Layer
- 2.6. Layer 6 – Presentation Layer
- 2.7. Layer 7– Application Layer
- 2.8. TCP/IP Model
- 2.9. OSI Model versus TCP/IP Model
- 2.10. Architecture Internet

3. Network Structure

- 3.1. Design and properties (topologies)
- 3.2. LAN or Local Area Network
- 3.3. Logical Topologies of a Network
- 3.4. Physical Topologies of a Network
- 3.5. Network Architectures
- 3.6. Ethernet network

4. Installation plan for a local area network

- 4.1. Networking devices
- 4.2. Wiring harness
- 4.3. Wireless Networks
- 4.4. The backup drive
- 4.5. Selecting the File System
- 4.6. Network protocols
- 4.7. Defining the role of the server in the network
- 4.8. Identification of the equipment to be connected in the network
- 4.9. Defining Customer Accounts
- 4.10. Defining the security template
- 4.11. Exercise: WAP Configuration Simulator

5. Setting up different software

- 5.1. Customer Accounts
- 5.2. Safety Model
- 5.3. DHCP or Dynamic Host Configuration Protocol
- 5.4. DNS or Domain Name Server
- 5.5. NAT or Network Address Translation

FORM OF THE TRAINING UNIT

NAME OF THE TU	COMPUTING ARCHITECTURE ON WEB ENVIRONMENT				
NUMBER OF THE TU	COM	002		WORKLOAD:	50 hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify the basic elements of the computational architecture.
- Understand the differences between client server architecture and web architecture
- Cloud computing architecture skills development

CONTENTS

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. IS implementation <ol style="list-style-type: none"> 1.1. Introduction and main steps 1.2. Hardware and Software 1.3. Communication and data warehouse 1.4. The human resources and education/training 2. Computer architecture <ol style="list-style-type: none"> 2.1. Definition and components 2.2. Client-server architecture 2.3. Architecture on a web environment 3. Web Services (Generic) <ol style="list-style-type: none"> 3.1. Definition 3.2. Asynchronous JavaScript and XML 3.3. Used technologies <ol style="list-style-type: none"> 3.3.1. XML or Extensible Markup Language 3.3.2. REST or Representational State Transfer 3.3.3. SOAP or Simple Object Access Protocol 3.3.4. WSDL or Web Services Description Language 3.3.5. UDDI or Universal Description Discovery and Integration 3.4. Web Services that use markup languages | <ol style="list-style-type: none"> 3.5. W3C Web API Web Services (specific) <ol style="list-style-type: none"> 3.5.1. Explanations 3.5.2. Automated design methods 3.5.3. Regression testing of Web Services 3.5.4. Web Service management 3.5.5. Used technologies 4. Architecting Cloud Computing Solution <ol style="list-style-type: none"> 4.1. History and Similar Services 4.2. Characteristics 4.3. Service Models 4.4. Deployment Models 4.5. Cloud Engineering Architecture 4.6. Security and privacy 4.7. Limitations and disadvantages 5. Project exercise: Design a case study project - Architecting Cloud Computing Solution to a partner |
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FORM OF THE TRAINING UNIT

NAME OF THE TU	MANAGEMENT INFORMATION SYSTEM				
NUMBER OF THE TU	COM	003	WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify and understand information systems on organizations
- Identify, understand and manage IS (information systems)
- Know how to classify information
- Learn to obtain and manage requirements
- Create UML and ITIL basic skills

CONTENTS

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Information System needs and requirements on the actual organizations (main definitions and concepts) <ol style="list-style-type: none"> 1.1. Information needs 1.2. Understanding the concept of a system 1.3. An enterprise as a system 1.4. Types and functions of IS 1.5. Information objects: events, activities and entities 1.6. Information architecture 1.7. Information documentation 1.8. Cost of information and its nature 1.9. Key questions and advantages 1.10. Classifying the information 1.11. IS evolution 1.12. Knowledge management 2. An IS overview <ol style="list-style-type: none"> 2.1. Business process Management (BPM) 2.2. IS Development 2.3. IS exploration 2.4. Outsourcing Management 3. IS Management (ITIL) <ol style="list-style-type: none"> 3.1. Service Level Agreement (SLA) management and monitoring | <ol style="list-style-type: none"> 3.2. Services process support and availability 3.3. System portfolio 3.4. Versions Managing 3.5. Project Management 3.6. Service Delivery 3.7. Performance Measurement 4. IS representation <ol style="list-style-type: none"> 4.1. Flows and diagrams 4.2. Data dictionary managing 4.3. Metadata importance 4.4. Data Base and main objects 4.5. The main steps to create a data base design 5. Requirements management <ol style="list-style-type: none"> 5.1. Why and how to manage 5.2. Requirements representation and communication 5.3. UML or Unified Modeling Language 5.4. Use Cases 5.5. Sequential Diagrams 5.6. Activity Diagrams |
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FORM OF THE TRAINING UNIT

NAME OF THE TU	PERSONAL PRODUCTIVITY TOOLS				
NUMBER OF THE TU	COM	004		WORKLOAD:	25 Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Apply some productivity tools, also using the web, improving procedures, saving energy and time;
- Archive information, saving time, in a safe and organized way;
- Know how to use electronic agenda and to-do list management and integration with mail and other tools;
- Know how to use other tools as notes organization and classification, electronic post-it, password and business cards management;

CONTENTS

- 1 Archive, backups procedures and tools to maintain the workspace organized and your information save;
- 2 Electronic agenda management: integration between personal and professional agenda;
- 3 Contacts management on different environments
- 4 Password creation and synchronous password management for all platforms;
- 5 Business cards management
 - 5.1 Scan and organize business cards
 - 5.2 Electronic creation of business cards
- 6 Electronic notes tools management as Evernote, Google keep or other tools
 - 6.1 Capture inspiration and to-dos effortlessly;
 - 6.2 Collaborate on notes with teammates and set reminders to stay on track: note capturing, file storage & sharing solution;
 - 6.3 Capture and Access anywhere.
 - 6.4 Find things fast.
- 7 Web collaborating tools with colleagues and customers
 - 7.1 Launch a meeting from anywhere with GoToMeeting
 - 7.2 Using Google docs and hangouts to teamwork
 - 7.3 Sync files and contacts on the cloud

FORM OF THE TRAINING UNIT

NAME OF THE TU	FOLHA DE CÁLCULO - NÍVEL I					
NUMBER OF THE TU	COM	005	(CNQ4 – 0778)	WORKLOAD:	25	hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Build, edit, and print spreadsheets.
- Use formulas, functions, charts, and drawings in worksheets.

CONTENTS

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| <ol style="list-style-type: none"> 1. Spreadsheet - General Concepts <ol style="list-style-type: none"> 1.1. Main elements 1.2. Workplace 2. Files and spreadsheets <ol style="list-style-type: none"> 2.1. File opening 2.2. File recording 2.3. Simultaneous use of files 2.4. Access to the last used files 2.5. Changing the Name and Position of a Sheet 3. Cells <ol style="list-style-type: none"> 3.1. Inserting and editing text in cells 3.2. Selecting a set of cells 3.3. Fast moving cells 3.4. Inserting cells 3.5. Copy and delete cells 3.6. Automatic filling 3.7. Formatting cell text 4. Formatting Rows and Columns <ol style="list-style-type: none"> 4.1. Selecting, inserting, and deleting rows and columns 4.2. Row Width and Row Height 4.3. Omission and viewing of columns | <ol style="list-style-type: none"> 5. Formulas <ol style="list-style-type: none"> 5.1. Absolute and relative references 5.2. Formulas associated with calculations 6. Printing spreadsheets <ol style="list-style-type: none"> 6.1. Definition of the area to be printed 6.2. Print Preview 6.3. Header and footer 6.4. Margins 7. Functions <ol style="list-style-type: none"> 7.1. Financial functions 7.2. Statistical functions 7.3. Editing Functions 8. Graphics <ol style="list-style-type: none"> 8.1. Chart Types 8.2. Inserting data for graphs 8.3. Edition 9. Drawing <ol style="list-style-type: none"> 9.1. Creating drawings and text boxes 9.2. Moving and gathering objects 10. Sort Lists and Data Filters |
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FORM OF THE TRAINING UNIT

NAME OF THE TU	FOLHA DE CÁLCULO - FUNCIONALIDADES AVANÇADAS					
NUMBER OF THE TU	COM	006	(CNQ4 – REF.ª 0757)	WORKLOAD:	25	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Perform connections between multiple worksheets.
- Perform data analysis.
- Automate actions by using macros.

CONTENTS

1. Multiple worksheets
 - 1.1. Multiple sheets
 - 1.2. Spreadsheet meeting
 - 1.3. Connection between sheets
2. Summary of data
 - 2.1. Inserting Subtotals
 - 2.2. Highlights
 - 2.3. Reports
3. Data analysis
 - 3.1. Analysis of data in tables and lists
 - 3.1.1. Creation, ordering and filtering of data
 - 3.1.2. Forms
 - 3.2. Creating and Formatting a PivotTable
 - 3.3. Use of Totals and Subtotals
 - 3.4. Formulas in PivotTables
 - 3.5. Drawing of graphs
4. Macros
 - 4.1. Predefined macros
 - 4.2. Toolbar customization macros
 - 4.3. Creating and Recording a Macro
 - 4.4. Assigning a macro to a button
 - 4.5. Executing a macro
5. Converting data to decision
 - 5.1. Using external data
 - 5.2. Build formulas to analyse dates, text fields, values and arrays
 - 5.3. Power Pivot table and reporting with it
 - 5.4. Using slicer and sparklines

FORM OF THE TRAINING UNIT

NAME OF THE TU	DATABASE MODELLING AND ADMINISTRATION				
NUMBER OF THE TU	COM	007		WORKLOAD:	50 Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Have domain of the process to create a data model
- Modelling formal techniques and skills;
- Capacity to create the main objects of a Data Base ;
- Know how using SQL or Standard Query Language and Unified Modelling Languages (UML);

CONTENTS

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| <ol style="list-style-type: none"> 1. DataBase Modelling <ol style="list-style-type: none"> 1.1. What is 1.2. Database in Business 1.3. Main object of a database 1.4. Data Abstraction Layer 1.5. External and Internal Models 1.6. Conceptual Model 1.7. Physical model 1.8. Logical and Physical Data Independence 1.9. Schemas 1.10. Database Development Process 2. Formal Database Design <ol style="list-style-type: none"> 2.1. Types of Data Models 2.2. Control of data redundancy 2.3. Classification of Database Management Systems 2.4. The Relational Data Model 2.5. The Entity Relationship Data Model 2.6. Integrity Rules and Constraints 2.7. ER Modelling 2.8. Normalization | <ol style="list-style-type: none"> 3. SQL or Standard Language Query <ol style="list-style-type: none"> 3.1. What is 3.2. Select 3.3. Update 3.4. Delete 3.5. Built-in Functions 3.6. Exercises 4. Database administration <ol style="list-style-type: none"> 4.1. Concepts 4.2. Main Issues 4.3. Enforcement of integrity constraints 4.4. Database users 4.5. Restriction of unauthorized access 4.6. Backup and recovery facilities 4.7. DataBase maintains 4.8. Optimizing |
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FORM OF THE TRAINING UNIT

NAME OF THE TU	E-BUSINESS LANGUAGES				
NUMBER OF THE TU	COM	008	WORKLOAD:	50	hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Domain of some techniques to create Metadata and standardize business language to resolve business interoperability;
- Knowledge of the main e-business languages;
- Learn EDIFACT Language;
- Capability to define an electronic document using XML with the best practices recommended by OASIS;

CONTENTS

1. Business and IT Interoperability	4. EDIFACT or Electronic Data Interchange for Administration, Commerce and Transport
2. EDI and E-Business	5. XML or Extensible Markup Language
3. HTML or Hypertext Mark-up Language language	

FORM OF THE TRAINING UNIT

NAME OF THE TU	INFORMATION SAFETY AND SECURITY (WEB ENVIRONMENT)				
NUMBER OF THE TU	COM	009		WORKLOAD:	25 Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify the information security problems;
- Evaluates the business influence of vital business assets, and the odds and effects of vulnerabilities and security threats
- Have knowledge of basic security architecture and main technologies to ensure capability to use risk management to mitigate risk

CONTENTS

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| <ol style="list-style-type: none"> 1. Information Systems Security <ol style="list-style-type: none"> 1.1. Background 1.2. The Principles 1.3. The problem of security 1.4. The importance of procedures to mitigate risk 1.5. Security policy 2. Information Security <ol style="list-style-type: none"> 2.1. Classification 2.2. IT security management 2.3. Identity management 2.4. Authentication 2.5. Authorization 2.6. Confidentiality 2.7. Availability 3. Basic Security Architecture <ol style="list-style-type: none"> 3.1. ISO 27000 3.2. Best practices (CERT) 3.3. Risk Assessment Framework (RAF) 3.4. Security Architecture and Design 3.5. Common Data Security Architecture (CDSA) | <ol style="list-style-type: none"> 3.6. Implementation 3.7. Operations and Monitoring 4. Web Security environment <ol style="list-style-type: none"> 4.1. The problem 4.2. SSL or Secure Socket Layer 4.3. XML signature 4.4. XML encryption 4.5. Ws-Security 5. Continuity Business planning <ol style="list-style-type: none"> 5.1. Business analysis and issues 5.2. Thread and Risk Management 5.3. Steps to business plan 5.4. Backup and disaster recovery 5.5. Testing the plan |
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FORM OF THE TRAINING UNIT

NAME OF THE TU	GENERAL MANAGEMENT					
NUMBER OF THE TU	MPL	001		WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify basic management concepts and elements about the company economics, environment and organizational issues and elements of business strategy.
- Understand the basics of contemporary themes, like competitiveness, business strategy, ethics and social responsibility of organizations, entrepreneurship and innovation

CONTENTS

1. Company Study. The Company as a triple reality: human, social, and economic. The forces that condition the activity business. The Companies and their modus-operandi in the market. Market Concept (client universe). Cost, Price and Profit. Structures business.
2. The Company and the Internal and External resources. SWOT analysis. Customers. Competitors. Providers. State. The attractiveness of an activity. The Ethics of Business. Social responsibility. World economic organizations. Globalization
3. The fundamental concept of Management. Strategic planning: mission, goals and plans. Decision-making. The Art of Negotiating.
4. Management Information from the equity records. Financial management and management tools. Costs centres of Companies. Corporate governance

FORM OF THE TRAINING UNIT

NAME OF THE TU	SERVICES OF TRANSPORT AND LOGISTICS					
NUMBER OF THE TU	MPL	002		WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify essential aspects of the transport and logistics activities and the functioning of the sector: general characteristics, main agents, and relationships between agents, vehicles, infrastructures and info infrastructures.
- Determine the performance objectives of the transport service.
- Identify and select modes of transport.
- Elaborate transport operation plan and operations of loading and unloading in means of transportation.
- Use technologies and information systems support for Transports and Logistics

CONTENTS

1. Framework: the relationship between economy, transport and supply chain; the Portuguese, the Irish and the UK cases
2. The modes of transport and their characteristics: choice of mode of transport;
3. Transport Management: regulatory and contractual issues; the cost of transport and the determination of prices for primary and secondary transportation: different forms of tariffs; outsourcing;
4. Loading and unloading operations and packing of the merchandise;
5. Options on the Fleet: own or outsourcing; management of vehicle maintenance; traffic management and delivery planning; transport performance evaluation - adequate indicators (KPIs);
6. Transport / logistics relations; development of processes and procedures for the delivery operations and reverse logistics.
7. Logistics Management: Value Chain; Value-added services; Transport and Logistics Relations; Logistics; Logistics inverse.
8. Transport Information Strategy and Systems: Information Management applied to transport and logistics activities; computerization of costs and invoicing of transport operations; Strategic Management in Transportation

FORM OF THE TRAINING UNIT

NAME OF THE TU	TRANSPORTATION AND LOGISTICS TECHNOLOGIES				
NUMBER OF THE TU	MPL	003	WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Appropriate technical and practical knowledge of the main technological aspects associated with transport and logistics, including vehicles and infrastructures used
- Enable to carry out functions in the areas of transport management and logistics

CONTENTS

1. The evolution of transport and major technological developments;
2. General aspects: Systems of Measures; Scales; Conversion factors; Load and stowage factors;
3. Shipping. General description of the ship. Certification; Classifying Societies. Characteristics of ships: Dimensions; Scales of drafts. Drafts and salinity. Free board and flotation reserve; Stability; Tightness
4. Road transport. Vehicle characteristics: dimensions and weights;
5. Rail transport;
6. Air transport;
7. Communication systems. Computer science in the technical management of board. RCM;
9. Maintenance focused on reliability. Performance indicators;
10. Fuels and Lubricants. Main types of fuels and lubricants used in the maritime-port industry;
11. Care in the handling and storage in relation to the environment;
12. Planning and construction of infrastructures: ports, airports, highways and railways.

FORM OF THE TRAINING UNIT

NAME OF THE TU	TRANSPORT ECONOMICS				
NUMBER OF THE TU	MPL	004	WORKLOAD:	25	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identifying the key issues in the transport economy: market, pricing, competition and regulation, planning of a transport system;
- Apply general economic concepts to the transport activity in particular with a logic of integration into global macro-chains;
- Assess the positioning of transport activity in the economy and identify the main trends for its evolution, both nationally and internationally, and evaluate the effects of sector activity in terms of the national economy

CONTENTS

1. Transport Economics. Theoretical framework
2. Transport search: "Derivative" search, factors that influence it, elasticity.
3. Transport supply: Costs. Factors that influence supply. Economies of Scale, Range and Experience
4. Transport externalities: Concepts. Economic Valuation of Transport Externalities
5. Notions "pricing". Principles. Pricing by Marginal Cost. Price Discrimination. Subsidies in the Transport sector
6. Transport Market. Concept and market structure. Concentration and Volatility Measures
7. Minimization of transport externalities. The "User-Payer" Principle - emanation of the "Paying Polluter" principle.
8. Community policy on transport and the environment
9. Competition policy and the relationship of the transport market. Regulation of Markets, Prices, Entry. Imperfect Information

FORM OF THE TRAINING UNIT

NAME OF THE TU	GLOBAL MARKET AND INTERNATIONAL TRADE					
NUMBER OF THE TU	MPL	05		WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify and understand the goals and mechanisms of international trade and the essential procedures for international trade operations.
- Understand financial and financing mechanisms and the procedures of insurance and its importance in the context of international operations.
- Identify and apply the Incoterms in international operations including their impact on prices and contracts.

CONTENTS

1. International trade context.
 - 1.1. Framework on foreign trade and international trade.
 - 1.2. The phenomenon of globalization and international trade.
 - 1.3. Indicators of international trade.
2. Foundations of International Trade.
 - 2.1. Principles of international trade.
 - 2.2. Export and import financing instruments.
 - 2.3. Export and import procedures.
3. International Trade Systems and the facilitation of trade.
 - 3.1. International Economic Organizations.
 - 3.2. Rules of international trade.
 - 3.3. Incoterms - Definition, framing and its importance for international trade

FORM OF THE TRAINING UNIT

NAME OF THE TU	TRANSPORT LAW				
NUMBER OF THE TU	MPL	006	WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Recognize the legal regimes of the different modes of transport and logistical activities; international rules applicable; rights and responsibilities of the various actors;
- Know how to deal with the analysis of transport support activities, logistics and insurance;
- Know how to work with the most used documentation in the sector

CONTENTS

1. Transport law. National and international sources. Transport of people and goods. Transport in the Commercial Code of three Countries
2. Road Transport, national freight and international freight. Transport of passengers. Conditions for access to road transport activity
3. Shipping and ports. The ship. The Shipowner. Maritime transport of goods. Port operation. Maritime transport of passengers. Liability of the shipowner. Provisional injunction to arrest ships
4. Air transportation of goods and passengers
5. Rail transport. Rail transport of goods and passengers
6. Transit activity; The activity of the Navigation Agents; Logistics activities
7. Transport and insurance business. Insurance of goods against transport risks. The civil liability insurance of conveyors. The insurance of ships and the Protection and Indemnity Clubs

FORM OF THE TRAINING UNIT

NAME OF THE TU	QUALITY MANAGEMENT IN PORTS AND LOGISTICS				
NUMBER OF THE TU	MPL	07		WORKLOAD:	50 Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify the concepts and methodologies for the implementation of a quality management system in the service area
- Understand the physical and informational flows associated with transport, supply chains and key logistical and distribution processes and know how to identify the legal requirements and the mandatory documentation supporting them;
- Know standards for the certification of processes and professionals in transport, logistics and distribution;
- Understand the contribution of technologies and systems in the reorganization of these processes, contributing to efficiency and continuous improvement

CONTENTS

1. Basic concepts of a quality management system in the services area (concepts and methodologies of implementation)
2. Transport and supply chain processes: Physical, informational and financial flows; Documentation generated; Dematerialization of documents
3. Standardization, Quality and Certification of transport, logistics and distribution operations: National and international organizations; Certification of socially responsible management of the supply chain
4. Professional Certification: Professions and training in transportation and logistics; Certification of transport, logistics and distribution workers
5. Documentation and Certification in environmental domains: The environmental challenge in logistics and distribution activities; Reverse Logistics and Green Logistics; Waste management: classification, registration, recovery and transport; Packaging Management: involved entities, consignment and integrated systems.

FORM OF THE TRAINING UNIT

NAME OF THE TU	OPERATIONAL MANAGEMENT IN LOGISTIC CHAIN				
NUMBER OF THE TU	MPL	08		WORKLOAD:	50 Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Understanding the operations function and its impact on business strategy and in organizational and functional areas;
- Understand the process of designing new products and services and techniques of operation planning and stock management.
- Ensure the performance of the execution of a transport and a logistic service, applying tools to support operational and commercial management, controlling the quality of service rendered

CONTENTS

1. Introduction: Definition of operations management; The function of operations; Productivity
2. Operations Strategy: Strategy and Operations; Competitive Priorities
3. The Product: Product design and development sequence; Design and selection of the product; New Conception technologies; Designing a service
4. Processes and technologies: Production Environments; Evolution of process technologies; New production technologies; Conception of process flow; Service Processes
5. Capacity: Concepts; Capacity planning; Theory of Constraints; Capacity in services; Queue Theory
6. Stock Management: Definition and objectives; Costs; Classic models
7. Planning and Programming: Planning Techniques; Gantt charts; PERT / CPM / Time-Cost; Aggregate planning; Models of programming.

FORM OF THE TRAINING UNIT

NAME OF THE TU	SAFETY AND ENVIRONMENT IN TRANSPORTS AND LOGISTICS				
NUMBER OF THE TU	MPL	009	WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify general concepts of the environment and know how to distinguish aspects and environmental impacts different modes of transport, referring to the different applicable rules
- Provide technical and practical safety and security expertise related to the activities of the different modes of transport, transportation and logistics infrastructures.

CONTENTS

1. Legal requirements. Prevention of accidents. Programs of major legislative actions. Security Assessments
2. Essential health, safety and hygiene requirements at work, applicable to transport undertakings
3. Prevention and treatment of accidents in the company and control measures
4. Safe handling and storage of dangerous goods
5. Safety and environmental aspects and environmental impacts in maritime transport and ports: Applicable regulatory requirements; Main IMO Conventions
6. Safety and the environment in road transport: driving times for drivers; Defensive and economic driving; Accidents road transport
7. Safety and environment in rail transport: Working conditions; Accidents prevention
8. Safety and the environment in air transport: Working conditions; Accidents prevention
9. Environmental challenges: Transport fuels - Perspective of the system; Options for fuels and vehicles with low emissions; Energy in transport and emissions; Planning for sustainable development

FORM OF THE TRAINING UNIT

NAME OF THE TU	WAREHOUSE MANAGEMENT					
NUMBER OF THE TU	MPL	010		WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify general warehousing principles
- Identify organizational models of a warehouse
- Identify storage equipment
- Plan, coordinate and supervise the process of receiving goods
- Plan, coordinate and supervise the order preparation process
- Plan, coordinate and supervise the dispatch process
- Use warehouse management computer systems

CONTENTS

1. Organization of a warehouse
2. Storage equipment
3. Types of warehouse
4. Storage conditions
5. The process of receiving merchandise: planning, coordination, supervision, documentation.
6. The storage process: planning, coordination, supervision.
7. General principles of preparation of the order: the merchandise; handling; packaging; critical factors.
8. General principles of shipment in storage.
9. The process of dispatch of merchandise: planning, coordination, supervision, documentation.
10. Packaging, securing and packaging of cargo in transport.
11. Digital warehouse management software and applications.

FORM OF THE TRAINING UNIT

NAME OF THE TU	TECHNOLOGIES AND INFORMATION SYSTEMS – CONCEPTS AND APPLICATIONS				
NUMBER OF THE TU	MPL	011	WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Identify and have knowledge of the main technologies that could be find on logistics and ports
- Single Window architectures design and maintenance
- Know how to use BPSS (business process specification schema), CPA (collaboration protocol agreement) and CPP (collaboration protocol profile)

CONTENTS

1. Logistics and ports main technologies
2. Tracking and tracing technologies
3. RFID or Radio-frequency identification
4. Bar codes
5. GPS
 - 5.1. Business Process design
 - 5.2. BPSS (business process specification schema);
 - 5.3. CPA (collaboration protocol agreement);
 - 5.4. CPP (collaboration protocol profile).
6. The applications IS technology to other disciplines
 - 6.1. Electronic commerce: interoperability and network (EAI)
 - 6.2. The organization on the network and Internet
 - 6.3. Web Marketing
 - 6.4. Geographic IS
 - 6.5. Data Mining and Business Intelligence to support the decision process
 - 6.6. Global Position System (GPS) and European Galileo: applications to transport and goods management and tracking and trace on real time (Just-in-time)

FORM OF THE TRAINING UNIT

NAME OF THE TU	INFORMATION SYSTEMS APPLICATIONS IN PORTS AND LOGISTICS					
NUMBER OF THE TU	MPL	012		WORKLOAD:	50	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Having knowledge of some best practices on transport, ports and logistics fields
- Explore the knowledge of how some IT solutions may be applicable to solve some business problems in the sector

CONTENTS

1. The Use Case of Air Transportation
 - 1.1. Why IATA
 - 1.2. Business Interoperability
 - 1.3. Some best IATA procedures for plain and Cargo
 - 1.4. IOSA or IATA Operational Safety Audit Programme
 - 1.5. Integrating with Airports Council International (ACI) best practices
 - 1.6. World Customs Organization (WCO) articulation
2. Main IS for Ports and logistic
 - 2.1. Port Community Systems (PCS)
 - 2.2. The Single Window Architecture
 - 2.3. Long Range Identification and Tracking system (LRIT) and SafeSeaNet Systems
 - 2.4. The European Maritime Single Window (EMSW)
 - 2.5. Other applications in the supply chain.

FORM OF THE TRAINING UNIT

NAME OF THE TU	COMMUNICATION AND ORGANIZATIONAL BEHAVIOUR				
NUMBER OF THE TU	SOS	001	WORKLOAD:	25	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Develop personal skills in the relational context, with the development of assertiveness and emotional intelligence.
- Identify the importance of motivation in professional performance.
- Apply the most effective personal skills for the prevention and resolution of interpersonal conflicts.

CONTENTS

1. Communication
 - 1.1. Self-diagnosis of communicational attitudes and their effects on the behaviour of the other
 - 1.2. Assertiveness in Effective Communication
 - 1.3. The importance of feedback in communication and motivation
 - 1.4. Develop social and personal skills through emotional intelligence
2. Motivation
 - 2.1. Motivation: knowledge of objectives and results; reinforcement and challenge
 - 2.2. Main theories about motivation
3. Conflict management
 - 3.1. Conflicts in organizations: causes, manifestations and contexts
 - 3.2. The negotiation processes
 - 3.3. Self-awareness and self-control as domains of emotional intelligence

FORM OF THE TRAINING UNIT

NAME OF THE TU	TEAM MANAGEMENT				
NUMBER OF THE TU	SOS	002	WORKLOAD:	25	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Organize and manage work teams.
- Communicate and lead work teams.
- Identify the success of teamwork by highlighting underlying strengths and dynamics.
- Recognize the specificities and the essential aspects for success in teamwork.

CONTENTS

1. Organization of teamwork
2. Communicate effectively with the team
3. Results and people-oriented management
4. Techniques of motivation and dynamism of the team
5. Conflict management
6. Team orientation for change
7. Leadership
 - 7.1. Team leadership: own phenomena and dynamics, challenges and specific problems
 - 7.2. Different personal preferences and their impact on leadership roles
 - 7.3. Different Styles of Leadership
 - 7.4. Skills needed to coordinate teams
 - 7.5. Strategies to mobilize the team for excellence in performance
 - 7.6. Managing problem situations in the team
8. Teamwork - implications and specificities
9. Excellence in Teamwork
10. Interpersonal differences and their impact on teamwork
11. Mobilization of personal resources according to the team
12. Overcoming impasses and obstacles in teamwork

FORM OF THE TRAINING UNIT

NAME OF THE TU	TIME MANAGEMENT AND WORK ORGANIZATION				
NUMBER OF THE TU	SOS	003	WORKLOAD:	25	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Apply time management techniques in the scope of professional activity.
- Apply the principles of work organization as a team
- Develop a personal plan of action.

CONTENTS

1. Time management
 - 1.1. Self-evaluation in time management
 - 1.1.1. Time as a resource
 - 1.1.2. Laws and principles of time management
 - 1.1.3. Identification of personal characteristics
 - 1.1.4. Analysis of time wasters
 - 1.2. Planning in time management
 - 1.2.1. Determine goals and objectives
 - 1.2.2. Preparation of detailed plans, daily and weekly
 - 1.2.3. Use of checklists
 - 1.2.4. Definition and management of priorities
 - 1.3. Time Management Techniques
 - 1.3.1. Organization of the working day
 - 1.3.2. Grouping of tasks
 - 1.3.3. Control of interruptions and phone calls
 - 1.3.4. Use of the agenda as a strategic resource
 - 1.3.5. Optimization of new technologies
2. Organization of work
 - 2.1. Teamwork
 - 2.1.1. Organization and conduct of meetings
 - 2.1.2. Production of results through meetings
 - 2.1.3. Delegation of tasks to the commercial support team
3. Personal Action Plan

FORM OF THE TRAINING UNIT

NAME OF THE TU	PROFILE AND POTENTIAL OF THE ENTREPRENEUR - DIAGNOSIS / DEVELOPMENT				
NUMBER OF THE TU	SOS	004	WORKLOAD:	25	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

- Explain the concept of entrepreneurship.
- Identify the advantages and risks of being an entrepreneur.
- Apply diagnostic tools and self-diagnosis of entrepreneurial skills.
- Analyze personal profile and potential as an entrepreneur.
- Identify the technical and behavioral development needs, in order to favor the entrepreneurial potential.

CONTENTS

<ol style="list-style-type: none"> 1. Entrepreneurship <ol style="list-style-type: none"> 1.1. Concept of entrepreneurship 1.2. Advantages of being an entrepreneur 1.3. Entrepreneurial spirit versus entrepreneurship 2. Self-diagnosis of entrepreneurial skills <ol style="list-style-type: none"> 2.1. Diagnosis of the life experience 2.2. Diagnosis of knowledge of "professional realities" 2.3. Determination of the "own profile" and self-knowledge 2.4. Self-diagnosis of personal motivations to become an entrepreneur 3. Characteristics and key competences of the entrepreneur profile <ol style="list-style-type: none"> 3.1. Personal <ol style="list-style-type: none"> 3.1.1. Self-confidence and self-motivation 3.1.2. Ability to take decisions and take risks 	<ol style="list-style-type: none"> 3.1.3. Persistence and resilience 3.1.4. Persuasion 3.1.5. Implementation 3.2. Techniques <ol style="list-style-type: none"> 3.2.1. Business and customer orientation area 3.2.2. ICT planning, organization and mastery 3.2.3. Leadership and teamwork 4. Factors that inhibit entrepreneurship 5. Diagnosis of the entrepreneur's needs <ol style="list-style-type: none"> 5.1. Needs of personal character 5.2. Technical requirements 6. Entrepreneur - self-assessment <ol style="list-style-type: none"> 6.1. Self-assessment questionnaire and its verification of its suitability to the behavioural profile of the entrepreneur
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FORM OF THE TRAINING UNIT

NAME OF THE TU	ENVIRONMENT, SAFETY, HYGIENE AND HEALTH AT WORK - BASIC CONCEPTS				
NUMBER OF THE TU	SOS	005	WORKLOAD:	25	Hours

TRAINING ACHIEVEMENTS

This Training Unit includes the following professional achievements:

LEARNING OBJECTIVES

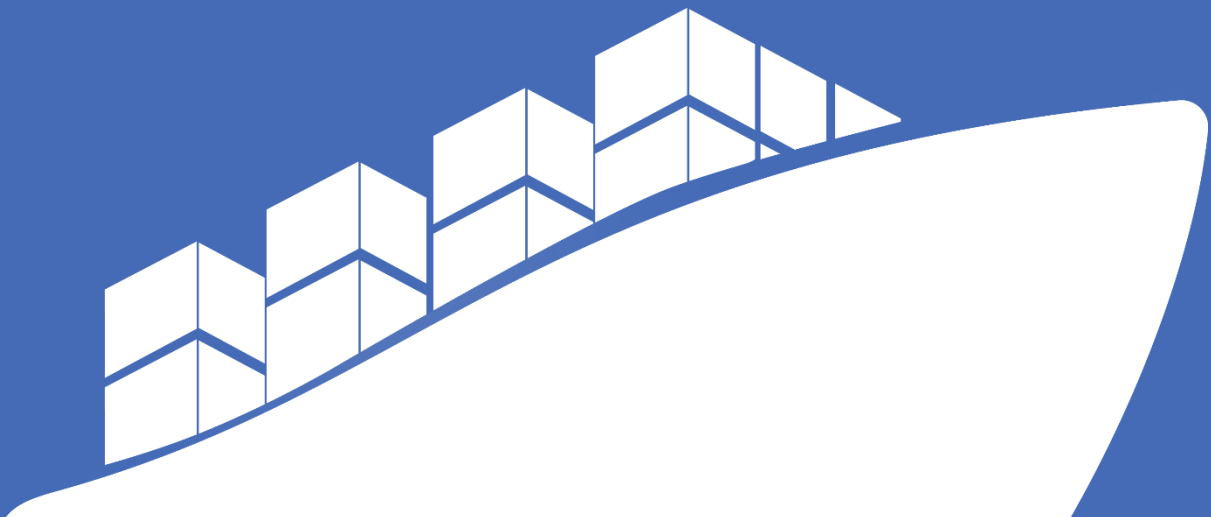
- Identify key environmental issues.
- Promote the application of good practices for the environment.
- Explain concepts related to safety, hygiene and health at work.
- Recognize the importance of safety, hygiene and health at work.
- Identify the obligations of the employer and the employee in accordance with the legislation in force.
- Identify the main risks present in the workplace and in the professional activity and apply the appropriate prevention and protection measures
- Recognize safety and healthy signs
- Explain the importance of individual and collective protection equipment.

CONTENTS

1. ENVIRONMENT
 - 1.1. Major environmental problems today
 - 1.2. Waste
 - 1.3. Waste Management
2. SAFETY, HYGIENE AND HEALTH AT WORK
 - 2.1. Basic concepts related to SHST
 - 2.2. SHS national legislative framework
 - 2.3. Accidents of work
 - 2.4. Professional diseases
 - 2.5. Main proficiency risks
 - 2.6. Signalling of safety and health
 - 2.7. Collective protection and individual protection equipment

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