Diploma in shipping (mercantile diploma course)

1: Compulsory for all mercantile diploma courses – 15 ECTS

- **1.1: Organization Theory of science and Methods** – 10 ECTS
- **1.2: Economic operations and management** - 5 ECTS

2: Compulsory for shipping – 25 ECTS

- **2.1: Cultural communication and awareness** – 5 ECTS
- **2.2: Shipping Operation and Management** – 5 ECTS
- **2.3: Shipping Business and Development** – 5 ECTS
- **2.4: Maritime Economics** – 5 ECTS
- **2.5: Shipping law** – 5 ECTS

3: Optional subjects (choose 1 subject from the list) – 5 ECTS

- **3.1: Dry cargo chartering** – 5 ECTS
- **3.2: Liner trade** – 5 ECTS
- **3.3: Offshore Support** – 5 ETCS
- **3.4: Tank chartering** – 5 ECTS

4: **Final Project** – 15 ECTS

Total 60 ECTS credits

Annex 1:”Compulsory Modules”

Appendix 1 examines learning objectives, content and scope of the compulsory modules.

Module Ob1 : Organization Theory of science and Methods
ECTS credits: 10

Contents

• Organizational Culture
• Organizational Change and Development
• Decision Theory
• Management
• Learning
• Communication
• Theory of Science
• Social Science Methodology

Learning objectives

Knowledge

The student will:

• Have knowledge of different theoretical perspectives on organizations to assess the organization's internal structure and its impact on the individual, organizational and community
• Have knowledge of and be able to discuss how organizational culture is important in and of organizations and management
• A theoretical science perspective to understand and assess organizational theories and social science methods applicability to practical problems and its own management

Skills

The student will:

• Be able to design an organizational analysis, including should reflect on the methodological choices of qualitative and qualitative methods
• Identify various stakeholders goals and values and their importance to the organization
• Identify and analyze organizational issues and conclude how the different options will have an impact on practice
• Include and analyze organizational issues and experiences from their own organization for development , motivation and learning in their own practice
• Collect empirical data in relation to self-selected organizational issues

Competencies

The student will:

• Take part to clarify the structures and values of the organization to identify the need for organizational
• Be able to initiate and manage organizational change in a constructive internal and external cooperation
• Identify their own needs for competence

Module OB2 : Economic operations and management
ECTS credits: 5

Contents :

• Cost behavior of the company's situation , so that they can be involved in the service the company's financial projections for price calculation and compilation of results , liquidity and balance budgets with subsequent budget control
• Annual accounts
• Methods for evaluating investments and assessment of various types of financing

Learning objectives:

Knowledge

The student will:

• Have knowledge of different principles for pre-and post-calculations
• Have knowledge of fixed and variable costs and to reflect on its use on different business
• have knowledge of the financial analysis methods that are being used in various industries and to reflect on the industry's use thereof
• Knowledge of the various budgets, including department , activity and cash flow budgets and to reflect on their use
• Knowledge about the industry's current fundamentals and be able to reflect on their application
• Knowledge of basic finance and investment opportunities in relation to the operation and ownership
• Knowledge of alternative reporting methods

Skills

The student will:

• Be able to produce accounts for analysis and providing solutions to this
• Conduct initial and calculated ring in order to be able to communicate pricing to managers and colleagues
• Evaluate which fixed costs to be " calculated" as variable costs and communicate this in budgeting
• Establishing relevant financial ratios of the company
• Be able to assist in setting and communicating department , activity and cash flow budgets
• Assess practical issues and set up parameters for the yield and revenue management system and justify these
• Be able to participate in the preparation of both the department and the company's financial analysis

Competencies

The student will:

• be able to handle complex issues in financial management and financial analysis
• engage independently in disciplinary and interdisciplinary cooperation and assume responsibility in the context of professional ethics
• develop own practice

Appendix 2

Module Rs1 : Cultural communication and awareness
ECTS credits: 5

Contents:

• Cultural Analysis - national and international cultural values, differences and developments
• Intercultural Communication

Learning objectives:

Knowledge

Students should have knowledge of:

• Cultural Theories and - model , analysis of national cultures
• Cultural differences , national and international cultures, capabilities and limitations of international cooperation
• Concepts such as cultural values and norms, cultural identity and cultural behavior
• Communication Theories and models
• Communication models and strategies, including verbal and non-verbal means
• Interaction and communication across cultures

Skills

The student should be able to:

• Apply different cultural theories to explain the complexity of interaction between cultures in order problem solutions
• Communicate taking into account different cultural and business contexts , and developing messages aimed at the specific context
• Identify and assess cultural symbols and their consequences;

Competencies

The student will acquire the skills to:

• Being able to work together across cultures
• Understand the consequences of culture in business / communicative context
• To undertake cultural self-reflection and achieve recognition of similarities and differences of other cultures

Module Rs2: Ship Operation and Management
ECTS credits: 5

Contents

- Development of management processes that turn strategy into practice. A process that creates ownership, sense and action among employees and managers in the organization
- Key functions in ship management and the responsibilities in each area ie commercial, operational, technical, crewing, bunkers, finance and administration

Learning objectives:

Knowledge

The student must:

- Have knowledge of and understand the significant effects of specific management practices related to strategic initiatives and development processes from both the organizational and the personal perspective
- Have knowledge on Standards of Training and Certification & Watch keeping
- Be familiar with the basics of ship design and the different types of ships intended for:
    - Dry Trades
    - Liner - conventional , multi-purpose , container vessels , Ro / Ro and barges
    - Tramp - conventional bulk , combination and reefers
    - Wet Trades - Crude, Product Carrier, Chemical carrier, LPG carrier and special vessels
- Be familiar with concepts such as TEU, LOA, LBP, Moulded Depth, Draft, Air Draft, Displacement , DWCC, DWAT, GT, NT, Bale & Grain Cube and Lane meters
- Have knowledge of registration and classification of ships and the institutions that make this
- Have an understanding of the application of the various inspections: annual, intermediate, special and damages
- Have knowledge of the bunker and the different players in the bunker market. As well as the bunker's influence on the environmental impact
- Have knowledge of the legal relationship between the ship owner and operator, including relations with cargo and third parties.

Skills

The student will:

- Through the description , analysis and assessment be able to characterize a given organization's strategic situation and demands for development
- Be able to understand and use the contents of and information available from capacity plans, general arrangement plans, deadweight scales and stowage plans
- Thoroughly understand and assessing the characteristics of the major world cargoes and their importance in shipping markets: Ore, Oil, Grain, Steel, Coal, Fertilizer and Containerized cargo. Stowage factor, Stability and compatibility. The demand for cleanliness, segregation etc.
- To able to access fixed costs, daily operating costs and voyage related costs, prepare budget and implement follow-up of the budget
- Be able to analyze insurance (understand the difference between Hull and Machinery and P & I) as part of risk management with the associated limitations of liability
- Thoroughly understand crew management as key components of efficiency and operating costs, including the remuneration package different parts taking into account the nationality of crew staffing levels and recruitment of officers
- Be able to analyze the reason for and choice of nationality of vessel, national flag and registration effect on the operational and administrative costs

- Get the ability to produce complete and accurate instructions to the voyage so that these instructions ensure compliance with the contract. Including the estimation of the voyage also in terms of daily operating costs and route calculations
- Be able to independently engage in disciplinary and interdisciplinary cooperation and assume responsibility for operational and managerial aspects of shipping operation and management

Module Rs3: Shipping Business and Development
ECTS credits: 5

Contents

- Development of international strategies
- Selection of operating parameters and follow-up
- Limited liability of the various types of companies
- The industry's various sectors and the related international organizations
- The geographical structure of the industry

Learning objectives:

Knowledge

The student will:

- Have an understanding of and be able to reflect on key theories and models for the development of the company's sales and marketing
- Understand how the original interpretation of the term “shipbroker” has, through the need to specialize, been expanded to encompass all aspects of shipping business
- Have an understanding of the principal difference between voyage charter and time charter. Be awaer of the special role of a bareboat charter
- Have an understanding of how brokers are remunerated by a brokerage based upon the owner’s earning under the charter concerned
- Have an understanding of the way in which the international chartering market operates, the various prime centers including London, Hong Kong, Tokyo and New York)
- Be familiar with the port agent and line agent function and roles. Including their similarities and differences in the extra work of documentation, seller, shipper, buyer forwarder and NVOC
- Be familiar with the various organizations (ship owners, brokers and agents, UN organizations, chambers of commerce, insurance companies , rating firms and workers' organizations) involved in shipping and their functions
- Be aware of the difference between Port/Port, Through and Combined transport bill of lading

Skills

The student will:

- Be able to develop, evaluate and implement Sales and Marketing strategies
- Be able to analyze, determine and implement appropriate action parameters to the target audience
- Be able to analyze in which the market is further compartmentalized depending on the commodities including crude oil, petroleum products, chemicals, gases, oils etc. and the way each commodity need different type of ships
- Be able to explain the various negotiations that brokers make on the principal's behalf.
- Be able to explain to the seller, buyer, appraiser and broker's role and the purchase and sale of new buildings or second-hand vessels
- Be able to analyze the risk of error and fraud in an industry where many agreements concluded orally. Including how the quality of B/L, certificates and declaration is a necessary part of the work to minimize the possibility of fraud.
- Thoroughly understand the special place of Documentary Letters of Credit and how they are established and operate
- Analyze the role and function of Incoterms in international trade including the obligations and insurable risk and tittle pass from buyer to seller under each of the terms
- Be able to take the responsibility for developing and implementing sales and marketing plans and ensure the involvement of relevant theories and methods

- Be able to make use of electronic tools and Internet (i.e. www.pier2pier.com) to search for ships and ports and use the information to make appropriate choices
- Be able to communicate in English in the form of reports, letters, memos, faxes, email and more.

Module Rs4: Maritime Economics
ECTS credits: 5

The module requires that the student is able to use graphs, charts, spreadsheets and models to illustrate the economic concept and change.

Contents:
• Micro and macroeconomic concepts and the global trends in production, trade and transport.
• Pricing under different marked form on the shipping markets.
• Economic trends and global developments in production, trade and transport. Including currencies and their development.
• Cost and pricing of individual shipping markets.

Learning objectives:

Knowledge

The student will:

• Have knowledge of micro - and macro-economic conditions , both nationally and globally
• Have an understanding of the development of global trade and will entail a need for sea transport .
• Knowledge of organizations like the WTO, the G8 and G20 and their influence on the development of marine transport.
• Knowledge of the price mechanism in the market for shipping
• Have an understanding of harbors, channels and waterways location and operation of shipping
• Be familiar with the operation of conferences, alliances and consortiums and their purpose for liner.

Skills:

The student will:

• Be able to explain the forces at short and long term behind supply, demand and prices for shipping area including understanding price elasticit.
• Be able to explain the business cycle in the shipping area using economic indicators.
• Be able to explain and assess developments in the foreign exchange market.
• Assessing the factors that influence the cost of each ship and port including assessing the optimal ship size for solving a given task.
• Be able to explain the clients' attitude to quality versus price. Below explain the components for better quality affect prices.
• Ability to assess market conditions in the individual shipping market.
• Be able to explain the differences and similarities between the dry cargo chartering, tanker chartering and liner. Including the direct and indirect participants and influencer’s power and influence of the three markets.
• Be able to explain the shipping industry part of a product's Green Footprint and assess future claims that may come to reduce emissions of each relocated cubic meters.

Competencies
The student will:
• Ability to analyze and assess macroeconomic indicators and indicators on the shipping area.
• Be able to use micro-and macro-economic knowledge to make decisions in a national or international shipping company.
• Be able to calculate the cost of operating a ship and use this calculation to make an offer to a customer.

Modul Rs5: Shipping Law
ECTS credits: 5

Contents

- Accidents, rights in ships, passenger rights and dispute resolution.

Learning objectives

Knowledge

The student must have:

- Get acquainted with the exception of nautical fault in the Hague Visby Rules vs. The responsibility for loading or damage also by collisions
- Be able to reflect on legal methods
- Have knowledge of the legal aspects of a salvage situation, both "ad-hoc salvage" and the contractual regulation of towing contracts without acute salvage aspect
- Have knowledge of contractual regulation of salvage situations by salvage contracts, including Towcon and Towhire. And rules on limitation of liability in environmental situations
- For general average rules have knowledge of general average bonds, the average adjusters role and insurance coverage requirements that are distributed in general average
- Have knowledge of relevant EU rules for maritime liability and the technical distribution of costs view between the environmental law restricting funds, global restriction funds and which requirements can not be limited, as well as assignment of requirements to the underlying international fund
- Have knowledge of how the mortgage and maritime lien arises and ceases, existence of other adjustments costs in states that are not connected the Maritime Lien convention and rules on mortgages and maritime liens in the event of a forced sale of the ship.
- Have knowledge of how to protect themselves against the arrest of the ship. Including the succeeding on the merits and importance of any prior agreements forum relation related to the same
- Have knowledge of the possibility of additional agreement regulating passenger rights and rules limiting the same
- Have knowledge of the reputed advantages and disadvantages of the different dispute options. Including the difference between dispute resolution in courts, arbitration, dispatch and mediation
- Have knowledge of the situations where the Merchant Shipping Act prescribes a particular dispute option. Including interpretation of jurisdiction and arbitration clauses.

Skills

The student must:

- Be able to handle the most common disputes on collisions from the Merchant Shipping Act § 151, 161-163 and 18 and make relevant risk management in connection with collisions and near-collisions
- From the Merchant Shipping Act § 16 could analyze the legal aspects of a salvage situation, both "ad-hoc salvage" and the contractual regulation of towing contracts without acute recovery aspect. Including use conditions for obtaining the reward and its size, the principle "no cure no pay" and contractual regulation of salvage in Lloyd's Open Form and "Scopic Clause."
- The ability to apply general average rules of YAR 1990 as incorporated in the Merchant Shipping Act, and central law on its uses. Below assess claims enforceable under YAR 1990.
- Be able to apply the rules of global restriction of nests responsibility of the Merchant Shipping Act § 171 et seq (CLC Convention of 1976 and Protocol of 1996), including properly assess the requirements that can be global limited and correctly calculate the relevant global limited amount
- Be able to assess whether there has occurred environmental responsibility in a given situation based on
    - Maritime Law §10, 1992 Liability Convention and the 2003 Fund Protocol
    - The rules for bunker pollution in Maritime Law § 183 et seq
    - Marine environment law and regulations on pollution from ships, particularly the obligation to

cross-grip Act Chap. 14.a. and to institute legal risk management in the environmental liability situations

- Be able to assess whether a given claim under the Merchant Shipping Act Sec. 3 can provide maritime liens on a ship registered in Denmark or any other country that has joined Maritime Lien convention
- Be able to assess whether a given claim under the Arrest Convention of 1952 as incorporated in the Merchant Shipping Act Chap. 4 and supplemented by Procedure Code allows for arrest of the ship. Including the relationship between the Arrest Convention and mortgage law
- Ability to handle passenger requirements according to Athens regulation (European Parliament and Raw-its Regulation No 1177/2010 of 01.24.2010) including properly calculate any passenger injury claims
- Be able to communicate maritime law and its problems with partners internally for phage regimes and non-specialists and external partners.

Competencies

The student must:

- From an in-depth understanding of maritime law rules technical content alone or in co-operate with other producers could handle the rules correctly on an unknown case or situation. Including able to conduct assessments of the relevant options and appropriateness of various legal strategies.

Appendix 3 ”Optional Modules”

Appendix 3 undergoes learning objectives, content and scope of the compulsory modules.

Module Vf9: dry cargo chartering
ECTS credits: 5

Contents:
• dry cargo chartering market, its market centers, operators, vessel type , rules and usages.

Learning objectives:

Knowledge

The student will:

• be familiar with the different types of ships dimensions, design, construction and equipment in dry cargo chartering and the difference to line ships and tankers.
• Knowledge of the difference in structure, purpose, and contracts for voyage and time charter.
• Have an understanding of the need for ongoing contracts - The owners, the chart and broker responsibilities and obligations in the contracts. The impact of INCOTERMS on the contracts.
• Have an understanding of the use of alternative routes of seasonal variations.
• Have knowledge of ship classification and inspections.
• Knowledge of brokers working tools including the use of e -commerce, market places, acronyms used and details that should be included in an offer for either time or voyage charter.
• Have knowledge broker and principals responsibilities in violation of this responsibility will result and availability of insurance in such a situation.
• Have an understanding of the importance of complaint handling, commissions and brokerage
• Knowledge of market forces for the four main types of goods. Including hedging and the effect on the demand for freight.
• Have knowledge of the different possibilities of disputes and understand ship owners’ associations and their roles in processing complaints.

Skills

The student will:

• Be able to plan the use of ship types for different goods, distance and geographic area. Moreover, from this calculate a Voyage Estimate including variables such as bunker, draft restrictions, fresh water and load line zones.
• Be able to calculate when the average time to start the circumstances under which the average time can be interrupted and how it is calculated. Below could apply the principle "once on demurrage always on demurrage", Laytime Statement and Voylay Rules.
• Be able to calculate the total freight cost from and hire and how the payment is due. Including explain the additional payments that may occur.

Competencies

The student will:

• Be able to prepare Charter Party including use one of the standard forms, and interpret the rules of the Charter Party order and explain the need for additional clauses.
• Applying ship measurements, dimensions and weights to calculate the capacity and hence the possible load and subsequent storage plan. Take into account the characteristics, requirements and risks from the 4

main types of dry cargo (coal, ore, grain and fertilizer.)
• Be able to draw simple plans of the most common dry cargo vessel types and to identify the dimensions and characteristics.
• The ability to analyze a B/L and explain what responsibilities shipowner and B/L holder has line of sight. Including the practical problems that may arise if no presentation of a Clean B / L.

Module VF10: Liner Trade
ECTS credits: 5

Contents:

- Liner trades World Container, Ro-Ro and Break Bulk, routes and ports.
- The liner service including the difference between
  - East / west and north / south
  - Round the World (RTW) Pendulum Hub & Spoke and End-to- End

Learning objectives:

Knowledge

The student will:

- Have knowledge of container management including owning versus renting, repairs, tracking and control systems.
- Be familiar with the IMO classification of dangerous goods including the various classes.
- Be familiar with the types of goods that are normally handled in line traffic , including methods being transported and packed as containers, palletized cargo, LCL/FCL, non- standard and packing.
- Have knowledge of stowage and its importance to the economy of liner.
- Understand the terminology of the target (tonnage capacity and dimensions), handling equipment on board the ships, ports and terminals function, equipment and layout.
- Have knowledge of the structure, governance, management, technical and commercial functions in liner shipping companies.
- Have knowledge of processing queries and booking systems, import and export regulations, customs, CISG and Incoterms.
- Have knowledge of market alliances, consortiums, capacity agreements and conferences. Below regulation and control of the Federal Maritime Commission (USA) and the Competition Directive (EU).
- Have knowledge of the evolution of supply and demand in the market.
- Have knowledge of Maritime Law responsibilities and limitations, procedures for processing claims, the need for the various types of insurance for goods and ships, the use of agents and their role in accountability.

Skills

The student will:
- be able to plan the use of feeder service, either by road , rail, sea transport
- be able to apply the IMO classification of dangerous goods
- put together a formal pricing structure for FCL, LCL and commodities with adjustment factors such as CAF, BAF, war risk, etc., charges such as THC, AMS, container demurrage ao and the link to the company's gross margins, market share and capacity utilization.

Competencies

The student will: be able to:
- assess the use of different types of ships such as container ships (including cellular / non-cellular, post Panamax, feeders , "Fast Ships "), Ro-Ro (including passenger and freight ferries , Deep Sea Ro-Ro/container ships, freight Ro-Ro and special Ro-Ro) and specialized ships as reefer vessels and barges
- assessing the application of various types of containers and the whole concept of containerization .

• Be able to use the different types of B/L , the effect of the different rules of The Hague , Visby and Hamburg, the importance of the statements and assess whether a B/L is "clean " or " dirty"

Module VF11: Offshore Support
ECTS credits: 5

Contents:

• Offshore Support industry, its market centers, actors, ship types, rules and codes

Learning objectives:

Knowledge

The student will have:

• Knowledge of the terms and abbreviations of the Offshore Industry.
• Knowledge of the geographic markets and their different requirements for ship types and numbers.
• Knowledge of the different political and environmental positions in the various geographic markets.
• Knowledge of the Knock for Knock principle, Hold Harmles agreements and allowances
• Knowledge of crew rules for the various types of ship and the need for experience in the individual functions. Including occupational health and safety rules and the necessity and nature of investigation and reporting by accident.
• Knowledge of equipment used for exploration for and extraction of oil and gas. Below which equipment is used in which situations and geographical markets.
• Knowledge of the design, characteristics and equipment of the different ship types. Including the development that has taken place in the last years and the development expected to take place in the next 5-10 years in eg. propulsion and anchoring.
• Understanding of supply and demand at the Offshore Support Industry market locally and globally.
• Knowledge of the broker's role, working methods and legal obligations, as well as the involvement and obligations of Charterers, owners and logistics companies.
• Knowledge of IMO and the different categories of dangerous goods. Including requirements for stowage of dry and liquid products, cleaning of tanks, loading of the tire, special goods and dangerous goods.
• Understanding the country logistics to support and increase the speed of the operation of the ships in their support task.

Skills

The student will be able to:

• Develop charter agreements based on industry agreements with relevant deviations. The agreements shall also include days for maintenance, interruption commission, option to use replacement ship, subcontractor, damages compensation and any profit sharing.
• Develop a support plan depending on the type of offshore to be supported. It can be platform, lifting barge, pipeline (rigid / flexible, risers / umbilicals or cable), command units, FPSO, mooring systems, suction tanks or underwater structures. The plan must include the type of ship, manning and times and must be communicated to professionals, non-specialists and collaborators.

Competencies

The student will be able to:

• Analyze in interdisciplinary cooperation the needs and possibilities of a particular ship type with the pros and cons of the various support functions such as pipe handling, anchor handling, towing and rescue support, support function, monitoring, underwater work, diving and ROV support, heavy lifting and moving of rigs.

Module VF12: Tank chartering
ECTS credits: 5

Contents:
• Tank chartering market, its market centers, operators, vessel types, rules and usages.

Learning objectives:
Knowledge
The student will:
• Knowledge of the oil route from extraction and refining for consumption. Including the difference between crude oil and derivatives.
• Have knowledge of the location of production areas, refineries, pipeline, terminals and routes as oils, gases and chemicals moved through. Below the structure and location of typical loading and unloading and the typical abbreviations associated with this.
• Knowledge of market forces behind the supply and demand for tank transport.
• Be familiar with the owners, the chart and broker responsibilities and obligations in the contracts.
• Knowledge of brokers working tools including the use of e -commerce, market places, acronyms used and details that should be included in an offer for either time or voyage charter.
• Have knowledge broker and principals responsibilities in violation of this responsibility will result and availability of insurance in such a situation.
• Have an understanding of the importance of complaint handling, commissions and brokerage
• Have knowledge of the different possibilities of disputes and understand ship owners' associations and their roles in processing complaints.
• Knowledge of classification and inspections.
• Be familiar with the difference between Dirty Cargoes and Light Clean Cargoes and the need for coating of tanks in special cases and IMO certificates.
• Be familiar with the ship's basic design and the different weights as a starting point for ship capacity.
• Be familiar with the need for tanker chartering stakeholders also to think about the environmental loads and their liability under MARPOL, OPA and EU regulations.

Skills
The student will:
• Be able to draw simple plans of the most common tanker types and identify the dimensions and characteristics .
• Be able to calculate when the average time to start the circumstances under which the average time can be interrupted and how it is calculated. Below could apply Statement of Facts and Laytime Statement and the importance of the principle "once on demurrage always on demurrage"
• Be able to calculate the total freight cost from freight and hire from World Scale, and how payment is due. Below explain the additional payments that may occur.
• Be able to calculate a Voyage estimates including variables such as bunker , draft restrictions, fresh water and load line zones.

Competencies
The student will:
• The ability to analyze a B / L and explain what responsibilities ship owner and B/L holder has line of sight. Below the practical problems that may arise if no presentation of a Clean B/L.
• Be able to prepare Charter Party including use one of the standard forms, and interpret the rules of the Charter Party order and explain the need for additional clauses.
• Assessing the need for marine use from the cargo characteristics and the characteristics of the ship and equipment such as pumps, manifold , COW , IGS , SBT and double hull . Including the difference between LNG and LPG with the implicit requirement for cooling, pressure and tank type