



Anatomy of Shipping Course Curriculum

Please note: This programme may be subject to alterations

BACKGROUND

Introduction to the shipping industry

Shipping has shown a remarkable ability to respond to or anticipate a growth in demand. It has also reinvented itself in one generation. What have been the changes in ship size, cargoes carried, performance and general market supply/demand trends during the past 30 years that have shaped the way the business is managed? The emergence of new ship types caused by the rapid growth of world trade and the shift in maritime markets will also be considered.

World political & economic issues

Sessions will review the major political and economic changes which are taking place on a global scale. The objective is to give participants a medium-to-long-term perspective of how world trade (and hence shipping demand) will be influenced by these changes. Strategic issues amid a new world economic order will be the focus.

International institutions and their role in shipping

There are three main organisations through which governments work to agree the conditions under which maritime activities are carried out. In descending order of magnitude, so far as their membership is concerned, they are: The United Nations (including most importantly the IMO), World Trade Organization and the Organisation for Economic Co-operation and Development, all of whose work is complemented by numerous regional groupings. This session will review the work of some of these major institutions and identify areas where their influence will grow in the future.

The Role of the IMO

The International Maritime Organization (IMO) is at the centre of regulatory activity for the shipping industry. Its genesis under the umbrella of the United Nations over 50 years ago brought maritime safety matters to discussion before an internationally representative body for the first time. Safety at sea remains as perhaps the most important body of work within the IMO; this area of concern, however, is only one of many diverse activities of the IMO, others being pollution prevention (MARPOL), security (ISPS Code), standards of construction of offshore installations and matters relating to the non-economic issues of maritime transportation.

Workshop: “Opportunities in Shipping”

Whatever market conditions are prevailing, there is likely to be opportunities for investment which will outperform the “do nothing” or “bail-out now” alternatives. During this session, participants working in several teams will be given a chance to create a shipping business proposal. Teams will be asked to substantiate proposals with current market factors and to present their results to a group of their peers who will decide in which project to invest their hypothetical wealth.

OWNING SHIPS: ACQUISITION

The shipbuilding market

Against a background of continuing change, this session will deal with shipbuilding under two broad headings:

1. Market fundamentals:

The main factors which influence the market supply/demand for newbuildings and how the price of a newbuilding is determined. The physical building process will be reviewed to help identify the capabilities of the world’s yards in responding to any upsurge in ordering.

2. Strategic review: A review of the current shipbuilding market, examining the key elements affecting newbuilding and fleet renewal trends over the next few years.

The sale and purchase deal

With only a few exceptions, virtually all second-hand purchases are conducted through a broker or brokers, whereas an increasing proportion of newbuilding contracts are negotiated directly between owner and yard.

Though chartering is a regular activity for owners, they will buy and sell vessels on a far less frequent basis. This session will examine the process of negotiating the sale (or purchase) of a second-hand vessel, concentrating on the main clauses of the most commonly used contract - the Norwegian Saleform. The often tense “hand-over” event when money and title are exchanged will also be described.



Newbuilding Sale & Purchase

In contrast to the second-hand market, the business of placing newbuilding orders is more structured. Despite the consolidation and specialisation that has taken place, however, it is a fast-moving market that needs constant monitoring. The lecture will then consider the main shipbuilding locations, their capacities and specialisations and further explore China's growing importance in this sector. The session concludes with an examination of the newbuilding contract form(s) and how they set out the respective obligations of the shipowner and the builder during a period which can be as long as four years from contract signing to final delivery.

Reading the market: the role of the shipbroker

Every day, shipowners use commercial judgement to interpret market information in a way that will best profit their company. They can afford to make mistakes in some areas but, in the business of Sale and Purchase, the consequences of a wrong decision can lead to disaster. Fortunately, the owner need not face these questions alone and generally, the shipping community is always ready to offer advice and opinions. In particular, the shipbroker can play a vital part in the process and here you will see how a broker can help an owner to evaluate market information and arrive at a reasoned decision.

Financing ship acquisitions

Various types of finance are available to the shipowner considering either newbuilding or second-hand tonnage acquisition. A detailed description will be given of the various risks considered and analysed by the commercial banker when faced with a loan application. The relationship between banker and shipowner will be considered. The function of banks and financial institutions in the global capital markets will also be examined. The likely impact of the Basle 2 Accord on shipping finance and world trade will also be assessed. The Accord, dictates the capital adequacy ratios of the banks in most of the world's major trading countries and lays down a more severe regime of debt/equity ratios than ordained by the first Basle Accord.

Identifying the best finance deal

Commercial banks occupy a pivotal role in matching an owner's need for finance with the available sources and today the options are many. Yard finance, bank debt, private placements, equity partnerships, bonds and IPOs all have their place in shipping but for any individual owner, the choice may be restricted when a financial evaluation is carried out.

How does an owner identify what is best for the business and then obtain it? As traditional bank debt is the most common form of finance, the session will review how banks assess the creditworthiness of a deal and the current terms on offer. High yield debt and other forms of finance will also be investigated.

THE LAW

Commercial law: charter parties and bills of lading

The law has a significant bearing on many aspects of the chartering business. Using the Asbatankvoy and NYPE charter party forms as examples, the lecture will discuss the legal implication of many of the important clauses and the link with the bill of lading. The lecturer will deal with:

1. Charter parties
 - what are they?
 - implications of freely negotiated contracts
2. What does a charter party contain?
 - simple financial obligations, e.g. freight and hire
 - obligations relating to performance, e.g. safe ports; length of charter
 - carriage of cargo
3. International rules pertaining to cargo carriage
 - Hague Rules
 - Hague-Visby Rules
 - Hamburg Rules
4. Bills of lading
 - what are they?
 - how they work alongside the charter party



- what is the implication of a “clean” bill of lading
- frequently encountered problems with bills of lading

International law of the sea

This lecture will be concerned with aspects of public international law or the law between states, which impacts on public ships and merchant ships flying their flag. Attention will be paid to the present law with particular reference to the delimitation of internal waters; territorial sea; contiguous zone and other offshore areas; continental shelf and the deep sea. The United Nations Convention on the Law of the Sea, 1982 now largely governs relationships in these areas.

TECHNICAL SHIP MANAGEMENT

Ships and their operational problems

The aim of any ship maintenance and repair plan should be to maximise the availability of the ship to perform her various functions with minimum total cost. Planned and preventative maintenance systems have been developed to cover the total ship, from propulsion and auxiliary machinery in the engine room to deck machinery and cargo handling equipment, together with hull structure, coating and painting systems.

More attention should be given to the reliability of main machinery and equipment at the design stage, incorporating condition-monitoring systems to reduce maintenance inspections. Today’s lean crew complements put pressure on owners to take M&R planning much more seriously than in the recent past.

The classification societies

Classification societies perform a wide range of services to the maritime industry, most importantly the assessment of a vessel’s suitability to trade - i.e. to be “classed.” How the class system functions with specific regard to the over-arching role of the International Association of Classification Societies (IACS) will be reviewed, as well as the relationship between class societies. In addition, the recent introduction of enhanced surveys for ships will be considered in the light of concern for older ships, particularly bulk carriers and tankers.

Shipowners’ Bunker Purchasing Strategies

This session will cover various aspects of fuel issues in relation to merchant shipping. It will open with a brief review of the history of the marine fuel oil industry and the changing requirements of the shipowners. The refinery process will be examined which will explain what it is that shipowners are buying when they order “residual fuel”. Developments in refining technology have resulted in quality reduction in residual fuels, a major concern for owners whose crews and assets can be exposed to extreme conditions should an engine fail in mid-sea. The session will also consider how to buy bunkers and who the key players are, highlighting the price drivers in this most volatile market. What actually happens when a vessel takes bunkers and why there is scope for fraud will be discussed, together with advice on how to minimise the risk. The speaker will end with a comment on the future evolution of the market.

COMMERCIAL SHIP MANAGEMENT

Ship management as a service

The subject of ship management from the viewpoint of an independent ship management company is at the core of this session. Although third party ship management is a relatively young sector of the industry, rapid growth in the 1970s and 1980s has meant that a significant proportion of the world fleet is now operated by these companies. This session will examine key aspects of the ship management sector:

1. What is (independent) ship management?
2. Why, when and how did it develop?
3. What is the market size and structure?
4. Why use a ship manager?
5. How should you select a ship manager?
6. What are the current market trends?
7. What of the future?

Crewing and training

Selecting a crew is one of the most important tasks faced by the ship manager. There are many options. Costs vary widely, and so may the voyage profits. What are the regulatory requirements and constraints? This session will provide the background to recent manning developments, examine crew composition, numbers and functions.



Typical costs and trends for crews of different nationalities will be discussed and the training and certification required by different flags will be reviewed. The 'human element' has been pinpointed as a contributory cause in major maritime casualties. What is being done and what else can be done to improve in this area?

Lloyd's of London insurance market

Lloyd's, the world's leading insurance market, transacts business worth billions of pounds in premiums every year. It is the world's second largest commercial insurer and sixth largest reinsurer. Lloyd's is not an insurance company but a competitive marketplace where underwriters accept insurance and reinsurance risks on behalf of syndicates of individual and corporate members whose resources provide the security behind Lloyd's policies. Lloyd's insures marine risks ranging from yachts to supertankers and their cargoes, and reinsures liability risks of nearly all the world's ocean going ships accounting for more than 10 per cent of total world marine premium income.

Marine insurance overview

For an understanding of marine insurance and its importance in the world of commerce, we need first of all to see how the market works, i.e. who is involved: the customers, the intermediaries, the insurers. In order to see how it works, we will look at the contract of marine insurance, how the parties come to enter into it, and the more important policy forms for ships, cargoes, freight and other marine insurances. For the risks covered, we will note the basic differences between the cover provided generally in the companies' and Lloyd's market and the protection available for shipowners in the P&I clubs. Finally, losses under the policy will be explained, including: total loss - actual and constructive, particular average, particular charges (sue and labour), general average, salvage charges and liabilities.

Marine claims

An insurance policy which does not pay up promptly in the event of a claim is no use to anyone. We will therefore look first at a typical claim, from the time the casualty occurs until the claim is collected, dealing with claims for both hull and machinery and cargo.

Protection and indemnity insurance

During this session, an introduction to P&I insurance will be given and the following main topics covered:

1. Historical background
2. Structure of a P&I Club
3. Mutuality principle
4. Group pool and market reinsurance
5. Limits to P&I cover
6. Scope of cover given
7. Services provided by the Clubs for their members
8. Other mutual Clubs
9. A Club's response to claims
10. Market update

Post-Fixture: chartering operations

This session will deal with part of the functions of the Post Fixture department of a ship owner, ship operator, voyage or time charterer or broker. There are often many more tasks to perform in this department than in the "shop window" department of the fixing brokers. Just as in any well run store, however, the back room staff perform a vital role which is often unnoticed or ignored until something goes wrong!

It is only then that their skills and duties are recognised. Whilst many think only of laytime and demurrage in the context of "post fixture" operations, the reality is somewhat more complicated. This session deals with post fixture mechanics, addressing the "who does what with whom, when and why" of the business.

Laytime, demurrage and despatch

Fixing a ship may be the glamorous part of the business, but without the back-room support of a good post-fixture department most owners would find the earnings from the ship eroded. This is particularly so when it comes to interpretation of laytime clauses in charter parties and the calculation of any demurrage or despatch due under the contract. In this session, following an explanation of the concepts of laytime, a number of simple examples will be given to help illustrate both the principles involved and some of the practices which have evolved over the years.



Use of Forward Freight Agreements

Shipowners and charterers face many different types of risk, one being the volatility of the freight market. Traditionally, this risk was covered by booking physical cover for forward dates, an efficient but not very flexible solution. During the past two decades, a number of financial instruments have become commonplace in the international shipping industry. This session will give each student an overall understanding of the theory, the terminology and the practical trading of Forward Freight Agreements (FFAs) which have now displaced Freight Futures. An assessment of the growth of the market will be made revealing how future freight pricing mechanisms may be driven by FFA forward curves.

SHIPPING MARKETS

Dry bulk shipping

This lecture will examine the dry bulk market in terms of its size, commodities carried and trading patterns. The economic benefits of combining trades both from an owner's and charterer's view will be explained.

The operation of the market will be analysed and the costs and earnings explored. The present freight market will be reviewed and the factors influencing the likely development of demand in the future will be assessed.

Transformation from Liner Shipping to Container Transportation

During this section of the course we will consider the development of Liner Shipping and its inter relationship with the conference system. The causes behind the First Container Revolution and the impact which this had on the global transportation of general cargoes will be discussed and how the container as the world's most versatile shipping unit has been the catalyst for the growth of international trade.

Through Transport Concepts

The First Container Revolution in the early 1960s was driven by the shipowners, seeking to improve Liner Shipping's profitability. The outcome was a multi-modal system which changed the dynamics of transporting general cargoes from a traditional port to port activity, to a streamlined point to point supply chain. This in its turn inexorably altered the cultural structure of traditional Liner Shipping and with it the links with the conference system.

The Second Container Revolution in the late 1980s/early 1990s, was led by the world's Shipper's Councils and with it the severance of the last link with the Liner Shipping cycle which had begun in 1816.

Commercial & Logistical Aspects of Container Transportation

This Session will cover amongst other aspects of the container business.

- Supply chain management and shippers' requirements
- Consortia and vessel sharing agreements
- Tariff structures
- E-commerce and roles of intermediaries and infomediaries
- Hinterland operations and intermodalism
- Equipment management and container types
- Documentary processes
- Environmental and security issues

Ship & Terminal Operations

Following the development of the commercial and logistical requirements, so the discussion will turn to other operational aspects of the container business.

- Terminal operations as a key link in the supply chain
- Container ship design and stowage constraints
- Terminal layouts and handling equipment
- Hub and spoke transshipment operations and feeder services
- Hinterland interfaces
- Importance of communications and documentary processes
- Environmental and security issues
- Future trends in terminal design and equipment automation



Future Industry Prospects

Is the Third Container Revolution inevitable? Some of the future options facing the container industry will be appraised, including:

- Capacity management
- Laying up of surplus tonnage
- Return to port to port operations
- Separate inland logistical services
- 'grey box' concepts
- Restructuring of organisations
- Resurrection of independent agencies

The Third Container Revolution?

The chemicals and gases trades

It was not until the early 1960s that the transportation of chemicals and liquefied gases began to grow significantly. Today LPG, LNG and chemicals moved by the sea account for a major portion of specialised trades. The purpose of this session is to ensure that participants have a good understanding of the main products moved in these trades, how these have developed, the major routes and the most significant business drivers. The growing importance of LNG in the energy markets will also be highlighted.

The tanker market

This session will open with a brief review of the history and recent development of the tanker industry. This will develop into an examination of the various types and sizes of vessels, the pattern of trade and the division of ownership between oil companies and the independent owners. The lecturer will then consider how the market operates and the implications of supply and demand characteristics. The impact of consolidation through mergers and pools for owners and charterers will be analysed. Finally, possible developments and the future prospects for the business will be presented, with particular regard to current concerns on tanker safety and the regulatory response.

Chartering

This session will look at how vessels are fixed. (i.e. provided with employment) in the market. The pros and cons of using a competitive or an exclusive broker will be considered. What role the broker plays in presenting his client's offer or counter-offer will be highlighted. The commissions which brokers earn will be explained as will the meaning of 'subjects' and their application in the business today.

Practical applications of Worldscale

The Worldscale system of quoting freight rates is unique to the tanker market, having developed from earlier post-war methods of presenting freight rates. One of the objectives of the system is to allow charterers the option to quote for business without being specific about the ports - for example, to describe a shipment as Middle East Gulf - West rather than Ras Tanura - Rotterdam. This built-in flexibility of the Worldscale system, however, does involve some hazards for the uninitiated. This session will look at the system and reveal some of the traps awaiting the unsuspecting user.

The cruise shipping market

Five key factors which will determine future prospects of the cruise sector will be considered:

1. The supply/demand outlook and the yield prospects for the lines
2. Consolidation in the cruise industry and the extent to which this process may continue
3. The regulatory environment for the cruise business
4. The identification and pursuit of new source markets for the cruise product
5. Cruise capacity deployment, the potential for new regional cruise destinations and the implications for the ports

Future development of world seaborne trade

The shipping market operates within the framework of a supply/demand mechanism, which means that future earning levels depend as much on how the industry manages supply as on the growth of demand for ships. This session looks at the various factors which determine freight market earnings and discusses a range of scenarios which could occur in the future, highlighting the dry bulk, tanker and container sectors in light of current market conditions.