

# **BSMR Maritime University, Bangladesh**



## **Master in Port & Shipping Management Syllabus**

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## **MPSM 511 INTRODUCTION TO PORT, SHIPPING AND MARITIME ORGANIZATIONS**

1. **Ports & Terminals:** Economic impact of ports on the regional economy – Location Characteristics – Organization structure in Ports – Interface of Rail & Road infrastructure – Factors affecting the future ports & terminals.
2. **Shipping Company Structure:** Organization of a shipping company – Roles of Commercial, Technical & Crewing departments – In house vs outsourcing of Ship Management functions – Ship Registries, National vs Open Registries – Ship Classification societies
3. **Port Operations:** Managing Port Operations – Introduction to Vessel Traffic Systems (VTS) & Harbour Authority – Services rendered by Ports and performance indicators – Terminal operations – Factors affecting Terminal Productivity – Cargo handling equipment – intermodal connections
4. **The roles and functions of United Nations and other International Organizations (IMO, ILO, UNCTAD, WHO) in the maritime context. International conventions and national regulations: responsibilities of ship-owners and crews; reports, declaration and certification requirements.**
5. **Flagging policy and decisions; flag state and ship registration practices. Shipping management practices and the uses of BIMCO SHIPMAN and CREWMAN. Design and development of safety management systems in maritime organizations using ISM Code.**
6. **International Maritime Organization: History of IMO, Membership in IMO, Legal instruments – SOLAS, COLREG, PSC, Governing bodies in IMO, Technical Committee, Marine safety Committee, standards and Recommendations for safety Investigation in Marine casualty. Safety of navigation, radio communications, search and rescue, standards of training and watch keeping, ship design and equipment, fire protection, stability, load lines and fishing vessel safety, flag state implementation, dangerous goods, solid cargoes and containers, bulk liquids and gases.**

### References:

1. Dessler, Gary (1997), *Human Resource Management*, London: J. Wiley & Sons.
2. Downard, J. (1987), *Managing Ships*, London: Fairplay Publications Ltd.
3. *Shipping Law Handbook – Bundock, 1997 Ed. (LLP)*

## MPSM 512 MANAGEMENT PRINCIPLES AND PRACTICES

### 1. Nature, Functions and Development of Management Thoughts:

Meaning and Importance of Management and Manager- Nature, Functions, Development of Management Thought- Early Classical Approaches- Neo Classical Approaches and Modern Approaches.

### 2. Planning, Decision Making and Organizing:

Planning- Nature- Importance- Forms-Types-Steps and Limitations. Management by Objectives- Strategic planning. Decision Making- Meaning- Types - Steps (Process) - Modes of increasing participation in decision making- strategies for improving decision making. Organizing- Elements- Contingency variables affecting structure, Organization design applications- learning organizations.

### 3. Leading:

Foundations of leadership: Concept, Types & Contemporary Issues; Motivating and Rewarding Employees- Motivation Theories- Contemporary Issues; Leadership and Trust- Behavioral and Contemporary Theories- Emerging Approaches – Issues; Building trust as the essence of leadership. Communication and Interpersonal Skills- understanding communication, Communication and Information Technology, Developing Interpersonal skills.

### 4. Managerial Ethics, Social Responsibility and Managerial Control:

Determinants of managerial ethics- Ethical guidelines for managers; Social responsibility of business towards different groups- Social Audit- Business ethics and Corporate Governance. Foundations of Control- Importance of control- Types- Implications for managers- Dysfunctional side of control- Contemporary issues.

### 5. Organizational Behavior:

Foundations of Individual Behavior, ability, biographical characteristics, learning theories. Values, Power and Politics bases dependencies as key to power, power tactics: causes and consequences of political behaviour. Conflict and Negotiation; Transition in Conflict thoughts, Conflict process, Negotiations, Global Implications, Stress Management.

## Reference

1. Stephen P Robbins and David A De Cenzo, *Fundamentals of Management: Essential Concepts and Applications*, Pearson Education.
2. Stephen P Robbins, *Organizational Behaviour, 13th Edition*; Pearson Education.
3. Rao VSP & Krishn, *Management: Text and Cases*, Excel Books.
4. Tripathy PC & Reddy PN (2008); *Principles of Management*; Tata McGraw Hills

## **MPSM 513 ACCOUNTING AND FINANCIAL MANAGEMENT**

1. Financial Accounting: Meaning, nature and importance. Accounting cycle, accounting equation. Journal, Ledger and Trial Balance.
2. Preparation of Final Accounts: Manufacturing Accounting, Trading Account, Profit and Loss Account, Profit and Loss appropriation Account, Balance Sheet (with adjustments). Depreciation Accounting
3. Analysis of Financial Statement: Meaning and importance Ratio analysis, Profitability ratios, Activity ratios, Liquidity ratios, Long-term solvency ratios, Common size statement, Comparative statements and Trend analysis
4. Funds Flow Statement: Meaning and importance, Preparation of schedule of changes in working capital; Preparation of funds flow statement and its analysis
5. Cash Flow Statement: Meaning and importance- various cash and non-cash transactions, Flow of cash, Preparation of cash flow statement and its analysis
6. Management Accounting: nature, scope and tools of Management Accounting; Management Accounting vs. Financial accounting and Cost Accounting. Cost Accounting- Meaning, Scope and Classification of costs, full costing, overhead allocations, and preparation of cost sheet.
7. Marginal Costing: Marginal Costing versus Absorption Costing, Cost-Volume-Profit Analysis and P/V Ratio Analysis and their implications, Concept and uses of Contribution & Breakeven Point and their analysis for various types of decision-making like single product pricing, multi product pricing, replacement, sales etc. Differential Costing and Incremental Costing: Concept, uses and applications, Methods of calculation of these costs and their role in management decision making like sales, replacement, buying etc.
8. Budgeting: Concept of Budget, Budgeting and Budgetary Control, Types of Budget, Static and Flexible Budgeting, Preparation of Cash Budget, Sales Budget, Production Budget, Materials Budget, Capital Expenditure Budget and Master Budget, Advantages and Limitations of Budgetary Control. Standard Costing: Concept of standard costs, establishing various cost standards, calculation of Material Variance, Labour Variance, and Overhead Variance, and its applications and implications.
9. Responsibility Accounting & Transfer Pricing: Concept and various approaches to Responsibility Accounting, concept of investment center, cost center, profit center and responsibility centres and its managerial implications, Transfer Pricing : concept,

types & importance ; Neo Concepts for Decision Making: Activity Based Costing, Cost Management, Value Chain Analysis, Target Costing, Decision involving alternative choices.

#### Reference Books

1. Hansen, D.R. & Mowen, M.M., Management Accounting, Thomson South Western.
2. Bamber, L.S., Braun K.W., Harrison, T.W., Managerial Accounting, Pearson Education, New Delhi.
3. Bhattacharyya, S.K. & Dearden, John, Costing for Management, Vikas Publishing House, New Delhi.
4. Pandey, I. M, Management Accounting, Vikas Publishing House, New Delhi.
5. Arora M N, Cost and Management Accounting, Vikas Publishing House, New Delhi.
6. Horngreen, C.T. Sundem G.L., Stratton W.O., Introduction to Management Accounting, PHI India, New Delhi
7. Bhattacharya S.K. & John Dearden, Accounting for management , Vikas Publication, 2006,
8. Jain S.P. & Narang K.L., Advanced Accounting, Kalyani Publication, Revised edition.
9. Maheshwari S.N. & Maheshwari S.K., Corporate Accounting Vikas Publication, 2008.

### **MPSM 514 HUMAN RESOURCE MANAGEMENT**

#### **1. Strategic Role of Human Resource Management**

History- nature- objectives importance and scope of HRM- HRM and competitive advantage- Traditional HRM and Strategic Human Resource Management (SHRM)- Growth of SHRM in the new Millennium- Human Resource Development Practices in India.

#### **2. Planning for human resources in dynamic environment**

Constituents of dynamic environment and their effect on HR practices i.e. technological changes- quality orientations- flexible manufacturing systems- economic challenges and workforce diversity- Job analysis- uses, process and

methods of collecting data- Job description and Job Specification. Effective Human Resource Planning - objectives- importance- process and responsibility.

### **3. Acquisition and Maintenance of Human Resources**

Recruitment- definitions- constraints and challenges- sources- methods- various types of affecting environments, Selection- purpose and process- Placements- Induction/ orientation- Internal mobility- Transfers and Separations- Performance Evaluation- format- techniques and problems. Compensation Administration - objectives- components- principles- regulation and factors governing. Incentives and Employee Benefits- Methods- Guidelines- Bases and Typologies.

### **4. Training and Development**

Training- need- areas- applicability- methods and evaluation of training programmes- learning principle and philosophy of training. Executive Development concept- importance- methodology/ techniques and selection of suitable methods- evaluation of training and development- Career and succession planning- problems and issues in career planning and development- succession planning, career stages and career management in Indian scenario.

### **5. Trade Unionism and Employee Welfare**

Objective- function and contributions in industrial relations, collective bargaining - objectives- types- issues; suggestions and recommendations of various governing bodies for effective collective bargaining in the process of solving industrial disputes, Employee Welfare- importance- types and statutory provisions- Social Security- types, regulatory mechanisms and applicability in Indian context.

### **Reference**

1. Rao VSP (2009); Human Resource Management: Text and Cases; Excel Books; New Delhi.
2. Dressler (2009); Human Resource Management, 11th Ed. Pearson Education
3. Ivancevich (2009); Human Resource Management; Tata McGraw Hill, New Delhi.
4. Aswathappa K (2009); Human Resource Management: Text and Cases; Tata McGraw Hill.

## MPSM 515 MARITIME ECONOMICS AND MARKETING

**1. The economic organization of the shipping market:** Economic role of the shipping industry, demand for sea transport, world merchant fleet, supply of sea transport, role of ports in the transport system, Shipping cycles and shipping risk, Characteristics of shipping market cycles, The frequency of shipping cycles, Freight market cycles, 1869–1914, The return on investment in shipping , The prediction of shipping cycles.

**2. Supply, demand and freight rates :** The shipping market model , The demand for sea transport, The supply of sea transport , The freight rate mechanism .Costs, revenue and financial performance: Cash flow and the art of survival , The cost of running ships, The capital cost and financial performance , The revenue calculation , Computing the cash flow.

**3. Financing ships and shipping companies:** Ship finance and shipping economics, How ships have been financed in the past , The world financial system and types of finance, Financing ships with equity , Financing ships with debt , Finance for new buildings , Leasing ships.

**4. The economic principles of maritime trade:** study seaborne trade, The countries that trade by sea , An explanation of trade theory ,Theories about the pattern of trade, Economic growth and sea trade, Trade forecasting and the commodity trade model.

**5. The global pattern of maritime trade:** Introduction, The Westline theory, Geographical distribution of seaborne trade, Maritime trade of the Atlantic and East Pacific, Maritime trade of the Pacific and Indian Oceans, Eastern Europe and the former Soviet Union

**6. Bulk cargo and the economics of bulk shipping :**The commercial origins of bulk shipping , The bulk trades, The ‘transport system’ concept , Handling bulk cargoes , Liquid bulk cargoes , The five major dry bulks , The minor bulk trades , Refrigerated cargo, The vehicle trade

**7. The general cargo and the economics of liner shipping:** Introduction, The origins of the liner service, Economic principles of liner operation , Liner conferences and their regulation, The components of liner service costs , The liner service cash flow model, Liner prices , The demand for liner services , The liner shipping routes ,The liner fleet, The economics of ships and ship designs

**8. The regulatory framework of maritime economics:** How maritime regulation affects maritime economics, The institutions that regulate shipping , Self-regulation and the classification societies , The law of the sea , The regulatory role of the flag state ,



**9. The economics of shipbuilding and scrapping:** Role of the merchant shipbuilding and scrapping industries, Regional structure of world shipbuilding , Shipbuilding market cycles, The economic principles , The shipbuilding production process , shipbuilding costs and competitiveness ,The ship breaking industry.

**10. Marketing environment** – customer oriented organization – marketing interface with other functional areas marketing in a globalised environment–The concept of global marketing –Importance, Growth and Benefits-Scope and challenge of international marketing.

**11. Product life cycle** - Market segmentation - Developing Global Marketing strategies –Global marketing management-Planning and Organization – Understanding Global Consumers – Cultural Dynamics in assessing Global markets.

**12. International product policy**-Product positioning in foreign market-Product standardization and Adoption – Brands, Trademarks, Packaging and Labeling – International product pricing policy – Export pricing-Pricing for international markets.

**13. International promotional policy** –International advertising –Developing International advertising strategy –International sales force and their management-Other forms of promotion for global markets - International marketing of services

**14. Overseas marketing channel policy** –Managing international distribution channels-Multinational retailers and Wholesalers-Global Logistics –Contemporary issues in International marketing – International Marketing Information System and Research – Future prospects in International marketing / International products & services customization.

Reference book:

1. Kotler, Keller, Koshy, Jha, Principles of Marketing Management, Prentice Hall.
2. Dana-Nicoleta,Laseu, International Marketing, Biztantra 2003.
3. P.K.Vasudeva, International Marketing, Excel books,2004.
4. R.Srinivasan, International Marketing, Prentice Hall India.
5. Warren J.Keagan, Mark Green , Global Marketing, Prentice Hall.
6. Philip R. Cateora, John Graham, International Marketing, Irvine-Sage Publications.
7. Rathor, Jain Rathor, International Marketing, Himalaya publishing House.
8. Maritime economics by Martin Stopford

## **MPSM 516 MANAGERIAL COMMUNICATIONS AND INFORMATION SYSTEMS**

1. Communication in Business-Importance of Communication- Forms of Communication - Network of the Organization-Process of Communication: Different Stages Difference between Oral & Written Communication.
2. Oral Communication-Fundamentals of Oral Communication: Introduction, Barriers and Gateways in Communication, Listening, Feedback, Telephonic Messages-Public Speaking and Presentation of Reports, PowerPoint Presentation, Body Language, Facial Expressions, Non verbal Communication, emotional Intelligence, Creativity in Oral Communication, Persuasive Communication-Communication through organizing various events like conferences, committee meetings, press meets, seminars, fests and the like.
3. Report Writing-Writing an Effective Report, Stages of Writing, Composing Business Messages, Style and Tone, Five Ws and one H of Report Writing-Planning and Types of Reports, Divisions, Numbering and use of Visual Aids-Creativity in Written Communication, Use of Pictures, Diagrams in Written Communication.
4. Business Communication-Writing Commercial Letters, Business Letter Format-Types of Letters - Routine Business Letters, Sales Letters, Resume and Job Applications, Business Memos, e-Mail Messages, Proposals, Technical Articles, Telegrams, Telex Messages, Facsimiles, Electronic Mail, Handling a Mail, Maintaining a Diary, Legal Aspects of Business Communication, Negotiation Skills.
5. Routine Correspondence-Circulars, Drafting Notices, Handling Complaints, Evaluating Interview Performance, Articles, Formal Invitations - Proforma for Performance Appraisals, Letters of Appointment, Captions for Advertising, Company Notice related Shares, dividends, MoA, AoA, Annual Reports, Minutes of Meetings, Action taken on Previous Resolution.
6. Management Information System – Concept, Need, Strategic role – Evolution of Management Information System – Components of Management Information System – Information flow.
7. Data base management systems – Objectives and Components – Database design – Creation and control – Recent trends in database.
8. Developing information system – Planning, Designing and redesigning – Approaches for system development – System analysis and Design – system Implementation and Maintenance.

9. Transaction processing and Support system – Transaction processing system – Office automation systems – Decision support systems – Executive information systems – Artificial intelligence and Expert systems.

10. Functional Information systems – Production, Finance, Human resource and Marketing – Managing information resources – Information Technology in ships and shipping Companies - methods – functions. Information Security – Control & Audit of Information Systems

### **Reference**

1. James A O' Brain, Management Information Systems, Tata Mc Graw Hill. 2003
2. King R William, Management Information System, 2003.
3. Davis, Management Information Systems, Mc Graw Hill, 2003.
4. Wetherbe, Turban, Information Technology for Management, John Willey Publishers.
5. .M.Prasad, Usha Prasad, Management Information Systems, Sultan chand & Sons, 2003.
6. D.P.Goyal, Management Information Systems – Managerial Perspectives, Mc Millan India.
7. Sadagopan, Management Information System, Prentice Hall, 2003.
8. Eff Oz, Management Information Systems, Vikas Publishing house Pvt. Ltd. 2003.
9. Muneesh Kumar, Business Information Systems, Vikas Publishing house Pvt. Ltd. 2003.
10. Kenneth C.Loudan & Jane P.Loudan, Essentials of MIS, Prentice Hall India, 2001.
11. Scot Ober, Contemporary Business Communication, Biztantra.
12. Bovee, Thill & Schatzman, Business Communication Today, Pearson.
13. Nageshwar Rao and Rajendra Das, Business skills.
14. Meenakshi Raman and Sangeeta Sharma, Technical Communication, Oxford.
15. Micheal Osborn and Suzanne Osborn, Public Speaking, Biztantra.
16. John Seely, Oxford Writing and Speaking, Oxford.

## **MPSM 521 STRATEGIC MANAGEMENT & CORPORATE MARITIME STRATEGIES**

1. What is a “Strategy”? What is Strategic Management? Why you need Strategic Management? Importance & Significance of Strategic Management in Maritime. Strategic Management usefulness as a precise & handy tool for any corporate Management to decide next course of action in near future & long term considering global competitiveness in Maritime Business.
2. How to judge the success or failure of any “Strategy” at a SEA-PORT? Study & Understand each of the following Methods to derive Strategy, SWOT Analysis, TOWS Analysis, BCG Matrix, Porter’s FIVE FORCE Analysis
3. How “Strategic Management Approach” can offer better solutions for long term in Maritime Business looking to complexity & security issues involved. To understand how a dynamic Strategy Analysis can lead to Improvisation & Competitive Advantage to any Port / Logistic Company / Maritime Business.
4. Formulation of Strategy, Selection of Strategy, Levels of Strategy : a. Corporate Strategy, b. Business Strategy, c. Functional Strategy
5. Analysis of Strategy & Effectiveness Measurement of Strategy Industry Attractiveness & Strategic Opportunity, Resources, Capabilities, Core Competence & Strategic Holistic Approach

### **Reference Books:-**

1. Essentials of Strategic Management Hunger, J. David, Wheelen, Thomas L.
2. Strategic Management by Trehan, Wiley India
3. Strategic Management Creating Value in a Turbulent World by Fitzroy, Wiley India.
4. Integrated Coastal and Ocean Management: Concepts And Practices (Constraints Management) by Biliana Cicin-Sain and Robert W. Knecht.
5. Blue Ocean Strategy by W. Chan Kim and Renée Mauborgne

## **MPSM 522 SUPPLY CHAIN MANAGEMENT**

1. Logistics Management: Origin and Definition – Types of Logistics – Logistics Management – Ware House Management – Automation and Outsourcing - Customer Service and Logistics Management – A Perspective - Concepts in Logistics and Physical Distribution - Distribution and Inventory
2. Types of Inventory Control - Demand Forecasting - Warehousing and Stores Management – Routing - Transportation Management - Some Commercial Aspects in Distribution Management – Codification - Distribution Channel Management -Distribution Resource Planning (DRP) - Logistics in 21st Century
3. Supply Chain Management: Introduction and Development- Nature and Concept -Importance of Supply Chain - Value Chain - Components of Supply Chain - The Need for Supply Chain - Understanding the Supply Chain Management - Participants in Supply Chain – Global Applications
4. Role of a Manager in Supply Chain - Supply Chain Performance Drivers - Key Enablers in Supply Chain Improvement - Inter-relation between Enablers and Levels of Supply Chain Improvement-Systems and Values of Supply Chain
5. Aligning the Supply Chain with Business Strategy - SCOR Model – Outsourcing and 3PLs – Fourth Party Logistics – Bull Whip Effect and Supply Chain – Supply Chain Relationships – Conflict Resolution Strategies - Certifications
6. Concepts of Logistics- Evolution – Nature and Importance – Components of Logistics Management- Competitive Advantages of Logistics- functions of Logistics management- principles-Logistics Network- Integrated Logistics system. Supply chain management- Nature and Concepts- Value chain- Functions – Supply chain effectiveness- Outsourcing - 3PLs and 4PLs – Supply chain relationships- Customer services.
7. Elements of Logistics and Supply chain management – Inventory carrying – Ware housing –Material handling – Order Processing - Transportation - Demand Forecasting - Impact of Forecasts on Logistics and Supply chain management – Performance measurements.
8. Transportation- Position of Transportation in Logistics and Supply chain management- Road, Rail, Ocean, Air, Transport Multi model transport- Containerization – CFS- ICDS –Selection of transportation mode – Transportation Network and Decision- Insurance Aspects of logistics.
9. Logistical Information system (LIS) - Operations – Integrated IT solution for Logistics and Supply chain management – Emerging technologies in Logistics and

Supply Chain management. Components of a logistic system – transportation – inventory carrying – warehousing – order processing – Ocean transport – ships – types - measurement of capacity of ships – shipping information.

10. Plant location: Facility location and layout planning - Types of layouts - Material handling equipments - Productivity: Factors Affecting Productivity - Job Design – Process Flow charts – Material Management - Costs associated with inventory - Economic Order Quantity - ABC Analysis - Just in-time Production - Total Quality Management.

### **Reference**

1. Krishnaveni Muthiah, Logistics Management and Seaborne Trade' Himalaya Publishing House.
2. D.K.Agarwal. Textbook of Logistics and Supply Chain Management, Mc Millan India Ltd.
3. Martin Christopher, Logistics and Supply Chain Management, Pearson Education, 2003.
4. Ronald H. Ballou, Business Logistics and Supply Chain Management, Pearson Education.
5. G Raghuram & N Rangaraj, Logistics and Supply Chain Management - Cases and Concepts. Mac Millan.
6. Martin Christopher, Logistics & Supply Chain Management: Creating Value-Adding Networks, FT Press.
7. Janat Shah, Supply Chain Management: Text and Cases, 1st Edition, Pearson.
8. D K Agrawal, Textbook of Logistics and Supply Chain Management, MacMillan 2003, 1<sup>st</sup> Edition

### **MPSM 523 MARITIME LAW AND INSURANCE**

1. Third United Nations Conference on the Law of the Sea (UNCLOS III): baselines internal waters and territorial sea, straits used for international navigation, archipelagic states, contiguous zone, continental shelf, exclusive economic zone, fisheries , land-locked and geographically disadvantaged states

2. The High Seas: Legal Status of the High Seas, High Seas Freedoms, nationality of Ships, Status of Ships on the High Seas International seabed area,

3. Settlement of disputes, The International Tribunal for the Law of the Sea (ITLOS), The International Court of Justice (ICJ), Arbitration and Other Forms of Alternative Dispute Resolutions (ADR)

4. Nationality, registration and ownership of ships: Nationality of Ships. Ship Registration, Registration and Ownership of Ships The Concept of 'Genuine Link', Types of Ship Registries.

5. Historical Development of Maritime Liens and Privileges, Sources of Maritime Liens and Privileges, Nature and Characteristics of Maritime Liens and Privileges

6. International Convention for the Safety of Life at Sea, 1974 (SOLAS) and the 1978 and 1988 Protocols thereto as amended, International Safety Management Code (ISM Code) International Convention for the Prevention of Pollution from Ships, 1973; the 1978 and 1997 Protocols thereto (MARPOL), as amended, International Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 and the 1996 Protocol thereto.

7. Introduction – Evolution – Principles– Risks - Hazards -Insurable risks - Insurable interest - utmost good faith - indemnity - need, nature and scope of cargo insurance policy - marine cargo insurance - marine insurance contract .

8. Ocean-going vessels - coastal tonnage - dry bulk carriers - liquid bulk carriers (tankers) - super tankers - combination carriers - container vessels - lighter abroad ship (lash) - roll on-roll off (RO-RO) vessels - - passenger vessels - fishing vessels - offshore oil/gas exploration, production units

9. Types of insurance cover– Insurance Products - Transport insurance – Legal liability Insurance – Third party legal liability insurance – Property insurance - hull and machinery insurance.

10. Kinds of losses - perils and causa proxima - Actual Total Loss (ATL)- Constructive Total Loss (CTL) - Collisions and Salvage - Average Clause - general average - coverage and institute clauses - transit clauses - Disbursements - premiums - liability - mutual protection & indemnity clubs (P&I clubs

11. Claims Handling-Insurance Claims – Risks – Reinsurance – Demurrage – Claim procedures and Documentation – Right of Subrogation

**Reference:**

1. The Law of the Sea by R R Churchill,
2. The International Law of the Sea by R Rothwell
3. Shipping and Environment Law (2nd Edition) by Charles
4. Marine insurance by Solomon Stephen Huebner (Nabu Press)
5. Marine Insurance: Its Principles And Practice by Templeman (Qureshi Press)
6. The Modern Law of Marine Insurance by D. Rhidian Thomas ( Lloyd's List)
7. Simon Baughen “ Shipping Law” – Cavendish Publishing
8. Fransis Rose “ Marine Insurance” Informa Uk Ltd
9. Arnould's Law of Marine Insurance and Average 17th ed. Publisher: Sweet & Maxwell Ltd by Jonathan Gilman, Robert Merkin, Claire Blanchard, Julian Cooke, Phillipa Hopkins, Mark Templeman

**MPSM 524 CARGO OPERATIONS MANAGEMENT**

1. Forces acting on cargo during transport; consequences and responsibilities of cargo problems; Cargo handling, stowage, securing and ship stability;
2. Basic principles for correct cargo stowage, packing, securing and lashing;
3. Type and care of shipboard handling and securing equipment; Terminal arrangements, layout of quays and transit sheds;
4. Handling of solid bulk and liquid bulk cargo; loading and unloading equipment for bulk and liquid cargoes;
5. Handling of break bulk cargo; equipment for handling pallets and containers; choice of Cargo Transport Units (CTU) type;
6. Methods of packing and securing of cargoes; Packing, handling, stowage, segregation and securing of dangerous goods; Regulations for the transport of dangerous goods;



7. Marking, labeling and placarding; Handling and storage of packaged dangerous goods in port areas;
8. Safe packing and securing of cargo in freight containers and vehicles;
9. Vehicles on Ro-Ro vessels; Lashing and securing of deck cargoes; Survey, inspection and certification of cargo equipment.

## **References**

1. Debrett D.R. (1999), Ship Stability, London: Heinemann
2. IMO, Code of Safe Practice for Solid Bulk Cargoes, London: International Maritime Organization
3. IMO, International Maritime Dangerous Goods Code, London: International Maritime Organization
4. IMO, International Maritime Dangerous Goods Code Supplement, London: International Maritime Organization
5. IMO, IMO/ILO/UN ECE Guideline for Packing of Cargo Transport Unites, London: International Maritime Organization
6. IMO, International Code for the Safe Carriage of Grain in Bulk, London: International Maritime Organization
7. IMO, Code of Safe Practice for Ships Carrying Timber Deck Cargo, London: International Maritime Organization
8. IMO, Code of Practice for the Safe Loading and Unloading of Bulk Carries, London: International Maritime Organization
9. IMO, International Convention for the Safe Containers, London: International Maritime Organization
10. IMO, Code of Safe Practice for Cargo Stowage and Securing, London: International Maritime Organization
11. IMO, Crude Oil Washing System, London: International Maritime Organization
12. Isbester J. (1993), Bulk Carrier Practice, London: Nautical Institute London
13. Knott, J.R. (1994), Lashing and Securing of Deck Cargoes, London: Nautical Institute London
14. Morgan N., (ed.) (1990), The Marine Technology Reference Book, Butterworth Scientific

## **MPSM 525 FLEET MANAGEMENT**

### **1. Introduction of Fleet Management**

General knowledge of Fleet Management in all its aspects; the role of a ship manager towards the owner and his place in the organization

### **2. Registry and Flags of Ships**

Analyze the market to make judgments on the outsourcing criteria. “Flag of Convenience”

### **3. Shipping Institutes, Regulatory Bodies and related organizations**

Recognize the various parties important for shipping and Fleet Management; the rules applicable for Fleet Management,

### **4. Maintenance and Technical Management**

Recognize the repair and maintenance regime. plan and manage work which arises from planned and unplanned repair and maintenance. organize emergency work.

**5. Crew Management** Importance of manning for the total management of a ship. Fulfilling future requirements taking into account demand and supply, social, cultural and ethnic aspects.

### **6. Security, Safety Health Environment & Quality and Accountability**

Management system, improvement of safety and operation of ships via self-regulation and developing a safety culture. the possible risks of running ships.

### **7. Budgeting and Cost control**

make a long term budget for ship operations and to manage the cost incurred, relevance of each cost category towards the total cost.

### **8. Field and Operational Management**

judge and analyze the performance of a ship in port and under operation; performance improvement or cost reductions.

### **References:**

1. Ship Management, Drewry Shipping Consultants, September, 2006
2. Professional Ship Management Photis M. Panayides 2001
3. Analytical fleet maintenance management. John E.Dolce.

## **MPSM 526 RESEARCH METHODOLOGY**

1. Introduction to Business Research - Research in Business – Research Process- Research Need, formulating the problem, designing, sampling, pilot testing - Thinking Like a Researcher and Proposals - Ethics in Business Research.
2. Research Design- Exploratory, Descriptive, Casual, Formulation of hypothesis - types. Measurement- characteristics of sound measurement tool, Scaling methods and sampling techniques- Nature, simple probability and complex probability – Non-probability samples.
3. Sources and Collection of Data- : Primary and secondary sources, survey observation, experimentation- details and evaluation. - Questionnaires – schedules and Instruments – Coding, data entry, tabulation & cross tabulation-and Graphic presentation – Examining Data.
4. Analysis and Preparation: Hypothesis testing – statistical significance, statistical testing procedure. Tests of significance- Types and selection of tests- Multivariate Analysis Techniques -Simple Correlation -Regression Analysis -Multivariate Techniques – Variable in Multivariate Analysis -Important Methods of Factor Analysis
5. Presenting results and writing the report: - Written and Oral Reports, The written research report, preparatory items, introduction, methodology, findings and conclusions- writing the draft to presentation – Oral presentation – preparation, delivery and audiovisuals.

### **Reference**

1. William C Emory, Business Research Methods, Richard D Irwin.
2. Donald R Cooper, Business Research Methods 7th Ed, McGraw Hill, 2001.
3. Krishnaswami, Ranganatham, Methodology of Research for Social Science, Himalaya, Mumbai, 2001.
4. Anderson J. et.al, Thesis and Assignment writing, Wiley Eastern.
5. Research Methodology by C.R. Kothari

## **MPSM 531 SHIP BROKING, CHARTERING, SALE AND PURCHASE MANAGEMENT**

1. Principles of Chartering-Introduction to Chartering –Chartering Terminology –Role of Broker –Types and Functions -forms and activities –charter parties
2. Types of Charter -voyage Ships –Vessel Descriptions -Vessel requirements - tramp chartering services -Passenger Ship Chartering –Cargoes -Freight Markets -Liner Operations –Tanker Charter –tanker trades -International Tanker Chartering Market
3. Purchase and Registration of Vessels -Exemptions and immunities -trading limits - dry-docking -protective clauses -stevedore damage
4. Freight and hire calculations –Voyage Estimation –Checks –Cargo Capacity –Time estimation in Port–Laytime Calculations -Vessel Negotiations –Statement of Facts – Time Count -Demurrage and Despatches -Classification Societies –Spares and Black lists –Delivery Methods –Auctions
5. Contracts -Individual rights, responsibilities and liabilities -Clauses in time charters Bill of lading-Chartering Market Practise -Ethical requirements -lien clause – Disputes -General Arbitrations.
6. Shipping markets, market development and influences on the market.Shipbuilding and sale & purchase markets and their interrelationship with freight markets
7. Cost/revenue and finance factors in chartering and ship acquisition. Information modes and channels. Freight and voyage calculations, case studies Build-up of pro-formas, agreements on terms, fixtures and charter parties.
8. Chartering routines and practices, standard terms, phrases and abbreviations used.Case studies on chartering negotiations. The concepts of laydays, laytime, demurrage and dispatch.
9. Notice of readiness, “arrived ship” and time counting, Case studies on laytime, despatch and demurrage.The reasons for buying and selling existing vessels. The advantages and disadvantages of second-hand vessels.
10. Standard contracts for sale and purchase of vessels: Norwegian Sale form 1993 and 1987 and Nippon sale 1999. Deposit and payment procedures, inspections, dry docking and delivery procedures

### Reference Books:

1. Ship Sale and Purchase By Iain Goldrein, Matt Hannaford,

2. The Law of Shipbuilding Contracts, By Simon Curtis
3. The economics of tramp shipping / (by) B.N. Metaxas. (Athlone Press)
4. Ship broking and Chartering Practice: Seventh Edition (Business of Shipping) by Lars Gorton (Lloyd's List)
5. Ship broking and Chartering Practice, 6th Edition Gorton, Ihre, Sandervarn and Hillenius
6. Tanker Chartering (Shipping Business Series) by Philip Wood (Witherby & Co Ltd)
7. Ocean Freights and Chartering by Cyril Frederick Hardy Cufley (Adlard Coles Nautical)
8. Tanker Chartering 2010-2011 by Institute of Chartered Shipbrokers (Witherby seamanship International Ltd)

## **MPSM 532 PORT OPERATION, PLANNING AND LOGISTICS**

**1. Introduction of Port.** What is a port, the port system, Approaches to port operations and management

**2. Port development and organization.** History of port development. Port roles and function. Port users and stakeholders. Port administration and organizational structure. Traditional vs. emerging port management model. Recent trend in port development

**3. Port planning.** Infrastructure and capacity. Evaluation and management of port projects. Long term (master) port planning. Modeling port demand and supply. Port traffic forecasting. Strategic port planning. Operational port planning: Terminal planning module

**4. Port investment and financing.** Port costs and costing systems. Economic evaluation vs. financial appraisal of port projects. Financing mechanism of port projects. Contractual and legal arrangements. Private sector participation and emergence of global port operator. Public-private partnership (PPP) models in ports issues with public financing of port infrastructure

**5. Port pricing.** Port charges vs. port dues. Tariff structures and surcharges. Marginal cost pricing. Strategic port pricing. Through transport pricing. Other pricing models. Regulatory mechanism for port pricing

**6. Port operations.** Port operations and services. Nautical versus cargo handling services. Value added and logistics port services. Queuing system and congestion in port. Port layout and configuration. Port equipment and maintenance. Terminal and site operation. Terminal procedures. Functional modeling of port operations. Port automation

**7. Port Performance and Productivity.** Multi-disciplinary approaches to port performance, Economic impact and port performance, Trade logistics and port productivity, Index methods for measuring port efficiency, Frontier methods for port benchmarking, Optimization tools in port operations,

**8. ICT and Port Management.** Information management systems in port, Port community system, Terminal operation system, Port technology, ITS in ports

**9. Port Marketing and Competition.** Analysis of Port Markets, Port Marketing tools, Techniques of port promotion, Market intelligence and research in ports, Economic analysis of port competition, Forms of port competition, Port selection and choice modeling, Port co-operation, Competition policy and regulation

**10. Port Logistics.** The network structure of port operations, Freight logistics systems and ports, Intermodality and landside port logistics, Port centric logistics, Value added logistics services in ports, Port and trade logistics, Integrating port in global supply chains.

**11. Port Safety.** Safety regulations and procedure, Formal safety assessments in ports, HAZAMT and the handling of dangerous goods, Accident reporting and investigation, Occupational safety and health

**12. Port Security,** Regulatory framework for port security, Security risk assessment and management, Economic and operational impact of security, Supply chain security and ports, Quality system of port security

**13. Environmental Management and ports.** Coastal zone management and the port city interface, Environmental port regulation, EIA in ports, Port operations and the climate change agenda, Contingency plans and environmental response

**14. Port labour and HRM.** History and development of port labour. Labour reform and social issues, Labour performance and Terminal operations, Port training and education, Port careers and HRD

**15. Port Policy.** Components and instruments of port policy, Regulating port services. Subsidizing port services, Port governance and reform, Deregulation and institutional restructuring.

**References:**

1. Port Management and Operations – Patrick Alderton (2nd Edn, Informa Maritime & Transport Jun 2008)

2. Port security Handbook 2004 – Lloyds Register
3. Port Infrastructure & Economic Development – Pradeepta Kumar Samanta & Ashok Kumar Mohanty (Gyan Publications 2005)
4. Port State Control – Dr.Z.Ozcayir (2nd Edn, Informa Professional Jun 2004)
5. Port Development : A Handbook for Planners in developing countries – UNCTAD
6. Excellence in Warehouse Management : How to Minimize Costs & Maximize Value - Stewart Emmet (John Wiley & Sons Ltd Jul 2005)

### **MPSM 533 PORT DESIGN AND MANAGEMENT**

1. Role of ports in economic development and in the through transport concept; road/rail impact on port/hinterland relationships; port administration and free ports;
  2. The concept of dry-ports; demand analysis; capacity evaluation; productivity enhancement;
3. Environmental Impact Assessment; investment appraisal; information needs for port planning; aids to navigation; hydrographic aspects and vessel traffic management; investment criteria; investment analysis and financing;
4. Port authority liabilities, legal liability under national and international law; terminal design for the different principal cargo types;
5. Layout design models; storage facility planning models; port operations and pilotage, Input/output modes; management and organization; port marketing; cargo handling and transfer technology; data processing and communications technology;
6. Ship handling; docking and mooring systems; labour management in ports; planning for emergencies and disasters.

#### ***References***

1. Alderton, P. (1999), *Port Management and Operations*, London: LLP Limited.
2. Bashford, A.S. (1989), *Marine Liabilities: Guidelines to Exposures and Insurances of Port*
3. *Authorities and Other Port Related Industries or Activities*, London: Witherby.
- Bernard, K. (1995), *Marketing Promotion Tools for Ports*, New York: United Nations.
- Cass, S. (1998), *World Port Privatisation: Finance, Funding and Ownership*, London: IIRPublications.

4. Haezendonck, E. (2001), *Essays on Strategy Analysis for Seaports*, Louvain, Belgium:Garant.ISL (1990),
5. *Port Management Textbook Series Vol. 1: General Aspects of PortManagement; Vol. 3: Port Marketing; Vol. 4: Port and Transport Logistics*, Bremen: Institute of Shipping Economics and Logistics.
6. Thomas, B.J. (1989), *Management of Port Maintenance: A Review of Current Problems andPractices*, London: HMSO.
7. Tsinker, G.P. (1997), *Handbook of Port and Harbor Engineering: Geotechnical andStructural Aspects*, New York: Chapman & Hall

### **MPSM 534 MARITIME SAFETY AND SECURITY**

1. ISM Code. Key issues, Legal status of code. Practical aspects of the code. Company verification, review and evaluation. Case studies. Regulatory framework for maritime security: International ship and port facility security (ISPS) code.
2. Definitions of key terms and concepts (e.g. safety, risk, hazard etc)., Influencing factors on administrative decisions regarding risk and safety (social amplification of risk etc.) *Risk assessment*: Introduction of qualitative (failure mode and effect analysis, hazard and operability studies etc.) and quantitative (fault trees, event trees etc) methods of risk assessment.
3. *Risk management*: Introduction of risk control options (RCOs) with effects on likelihoods of unwanted events to occur and severity of consequences, Discussion of risk acceptance criteria, the as low as reasonably practicable (ALARP) principle. Formal Safety Assessment (FSA) as a tool in the IMO decision making process.
4. The need to investigate maritime casualties (Legal background): Overview about relevant regulations in different international and maritime legal instruments regarding casualty investigations, Reporting requirements to IMO about maritime casualties, Selected national approaches related to maritime casualty investigations
5. Accident investigation process: Initiation of maritime casualty investigations, Appointment of investigators, collecting of evidence, developing time lines, conducting interviews with witnesses
6. The General System Concept: Understanding the SAR system; legal basis of services, the global concept, national and regional systems, system components.



Strategy Implementation; organizational and operational management, risk management and control, mass rescue operations; media relations.

Reference Books:

1. Maritime Safety, Security and Piracy by Wayne Kenneth Talley
2. Maritime Safety: The Human Factors by Sean M Trafford

## **MPSM 535 INLAND WATERWAY TRANSPORTATION SYSTEM**

1 Inland Navigation Network: Historical Development of Inland Navigation Network, Present Role of Inland Water Transport in Europe and the Importance of Inland Navigation Network, Network of the European Waterways.

2 Inland Waterway Characteristics: Basic Parameters of Fairway and Hydro Technical Works, Tributaries and Canals

3 Division of Waterways: Types of European Waterways, Main European Waterways, Classification of Waterways according to AGN, Inland Waterways Vessels, Type of Vessels.

4 Inland Ports: Definition of Inland Ports, Classification of Inland Ports, Division of Inland Ports, Basic Parts of Inland Ports, Role of Inland Ports in the Transport System, Functions of Inland Ports, Modes of Transport, Multimodal Transport

5 Navigation Technologies: Hydrological, Meteorological and Morphographical Effects Conditions for Navigation of Vessels, Safety Navigation Rules, Login Duty to the System RIS, Manoeuvring Characteristics of Different Types of, Inland Waterway Vessels. Technical Navigation Equipment of the Ship.

6. Development and management of multi-purpose waterways; Role and importance of the IWT sector in the Netherlands; Role and importance of the IWT sector in Bangladesh; Rules and regulations for IWT;

7. IWT in confined waters, hydraulic phenomena; classification; Design and functioning of IWT related structures; Management and operations of structures in waterways; River engineering related to the development of reliable navigability; Economic feasibility of making inland waters navigable; Survey and research on waterways, related to inland shipping;

8. Aids to Navigation (AtN) and Navigational aid (NA); Terminal layout, cargo handling and fleet operations; Environmental impact of waterway improvement and of fleet and terminal operations (EIAs) and Multi-disciplinary use of natural waterways; development of respectively visions, policy paper and master plan.

References:

1. UNECE Resolutions
2. CCNR Regulations
3. Inland Shipping Ordinance, 1976 (Ordinance No. LXXII of 1976)
- 4 European Policy for the Promotion of Inland Waterway Transport – A Case Study of the Danube River : By Svetlana Dj. Mihic and Aleksandar Andrejevic