BSMR Maritime University, Bangladesh

Master in Port & Shipping Management
Syllabus
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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.


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

2. Planning, Decision Making and Organizing:

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
4. Tripathy PC & Reddy PN (2008); Principles of Management; Tata McGraw Hills
MPSM 513 ACCOUNTING AND FINANCIAL MANAGEMENT


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


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.


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


MPSM 514 HUMAN RESOURCE MANAGEMENT

1. Strategic Role of Human Resource Management

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

3. Acquisition and Maintenance of Human Resources

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


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.


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.


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


Reference book:
8. Maritime economics by Martin Stopford
MPSM 516 MANAGERIAL COMMUNICATIONS AND INFORMATION SYSTEMS


Reference

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.


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.


5. Blue Ocean Strategy by W. Chan Kim and Renée Mauborgne


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


9. Logistical Information system (LIS) - Operations – Integrated IT solution for Logistics and Supply chain management – Emerging technologies in Logistics and


Reference
4. Ronald H. Ballou, Business Logistics and Supply Chain Management, Pearson Education.

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)


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


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)

**Reference:**

1. The Law of the Sea by R R Churcill,
2. The International Law of the Sea by R Rothwell
3. Shipping and Environment Law (2nd Edition) by Charles
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

**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
2. IMO, Code of Safe Practice for Solid Bulk Cargoes, London: International Maritime Organization
5. IMO, IMO/ILO/UN ECE Guideline for Packing of Cargo Transport Units, London: International Maritime Organization
11. IMO, Crude Oil Washing System, London: International Maritime Organization
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
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
3. Krishnaswami, Ranganatham, Methodology of Research for Social Science,
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


3. Purchase and Registration of Vessels—Exemptions and immunities—trading limits—dry-docking—protective clauses—stevedore damage


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.


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)
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


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

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


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:
2. Port security Handbook 2004 – Lloyds Register
3. Port Infrastructure & Economic Development – Pradeepta Kumar Samanta & Ashok Kumar Mohanty (Gyan Publications 2005)
5. Port Development : A Handbook for Planners in developing countries – UNCTAD

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

3. Authorities and Other Port Related Industries or Activities, London: Witherby.


**MPSM 534 MARITIME SAFETY AND SECURITY**


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**


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


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)