Outcome Based Education (OBE)

Curriculum of

Master in Port and Shipping Management

DEPARTMENT OF PORT AND SHIPPING MANAGEMENT

FACULTY OF SHIPPING ADMINISTRATION (FSA)

BANGLADESH MARITIME UNIVERSITY

(2025)

AUTHOROTY OF PUBLICATION

1. A Curriculum Committee formed vide memorandum no. BSMRMU/VC Office/Administrative-11/24/163 dated 28 August 2024 drafted the curriculum of Master in Port & Shipping Management Program [Committee approved by syndicate meeting vide memorandum no. BMU/Reg/Council/ Syndicate 377/2025/495 dated 17 March 2025]. The committee comprises with the following members:

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    Professor & HoD
    Department of Port and Shipping Management
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    Marine Consultant
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    Lecturer
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2. After review curriculums of similar programs from several renowned universities of home and abroad a draft curriculum was prepared by the curriculum committee and submitted to the Academic Council for approval.
3. After incorporation of the suggestion of the Academic Council (45th meeting held on 14 January March 2025, Item no-01), the curriculum was presented to the syndicate (43th meeting held on 10 March 2025). The syndicate approved the curriculum with some amendments/suggestions.
4. Based on the amendment/suggestion the curriculum was finalized and published here.

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Attachment 01:

Part A

1. **Title of the Academic Program:** Master in Port and Shipping Management
2. **Name of the University**: BSMR Maritime University, Bangladesh
3. **Vision of the University:**

The vision of the University is to promote and create a learning environment for higher maritime education with excellence, through state- of- the- art facilities and gadgets, competent faculty and staff, expanded frontier of research based knowledge and international standards supportive of the new horizons in diverse fields.

4. **Mission of the University:**

The mission of the university to

i. Produce skilled human resources in the maritime sector,
ii. ensure higher education and research of global standards and
iii. contribute to the national economic development through innovation of modern and up-to-date technology.

5. **Name of the Program Offering Entity (Department/Faculty/Institute):**

Department of Port and Shipping Management / Faculty of Shipping Administration.

6. **Vision of the Program Offering Entity:**

Our vision is to be a globally recognized centre of excellence in maritime education, producing graduates who are well-prepared to drive positive change in the port and shipping industry.

7. **Mission of the Program Offering Entity:**

M1: Our mission is to empower future leaders in the maritime industry with knowledge, skills and values that promote excellence in port and shipping management.

M2: We are committed to providing a comprehensive education that fosters innovation, sustainability and a global perspective.

M3: Through Outcome Based Education (OBE), we aim to equip our students with practical and theoretical insights, ensuring they become adept at addressing complex challenges in the maritime sector.

8. Objectives of the Program Offering Entity:

a. Plan, organize and control the port, terminal, depots etc.

b. Manage shipping and shipping ancillary business.

c. Execute strategic maritime decision.

d. Design transportation routes and logistics.

e. Manage supply chain and logistics activities in different companies.

9. **Name of the Degree:** Master

10. **Description of the Program:**

The Department of Port and Shipping Management started its journey from the very inception of this university under the Faculty of Shipping Administration. The department is committed to providing an excellent teaching and learning environment. Global standard curriculums are followed to impart quality education by qualified and competent teachers. Graduates of this department will get a unique opportunity to develop their careers in the different areas of the job market like domestic and foreign ports, terminals and inland ports, university teaching and research, shipping companies, commercial organizations, freight forwarding companies etc.

Master in Port and Shipping Management (MPSM) is an 18-month industry attractive post-graduate program under the Department of Port and Shipping Management. The program is designed with theoretical courses, case studies, and a dissertation/thesis. In addition to academic coursework, the student is required to partake in a field trip or study tour during the initial two semesters of their academic program. There are sixty credits in the curriculum total, divided into three (26-week) semesters:

i. Classes	15 weeks
ii. Mid Term Examinations	02 week
iii. Preparatory Leave	02 weeks
iv. Term Final Examination	03 weeks
v. Recess	04 weeks

11. Graduate Attributes:

Domain	Level Descriptors
Fundamental	**Deep understanding of the maritime industry:** Graduates possess an in-depth knowledge of maritime economics, markets, international law, and the regulations that govern the industry. **Competency in port and shipping operations**: The individual will possess extensive knowledge and experience in port operations, cargo handling, chartering (both dry and tanker), and supply chain management.
Social	**Communication skills:** Graduates can effectively engage with a wide range of stakeholders in the industry.
Personal	**Soft Skill:** Graduates will develop good communication and interpersonal skills to enable them to excel in the people-oriented field of port and shipping.
Thinking	**Research Skill:** Graduates will acquire proficient research abilities and the capacity to analyze information critically. **Advanced analytical skills:** Courses in maritime analytics will equip graduates to utilize data to improve efficiency and decision-making within the industry.

12. **Program Educational Objectives (PEOs):**

PEO 1: An ability to apply the knowledge of business and science in the field of port and shipping management
PEO 2: An ability to formulate maritime problems and develop practical solutions
PEO 3: An ability to work effectively in teams and provide leadership

PEO 4: An ability to effectively communicate orally, graphically and in writing
PEO 5: An understanding of managerial, professional and ethical responsibility

13. **Program Learning Outcomes (PLO):**

I. PLO-1 Maritime Logistics knowledge

II. PLO-2: Shipping Operations and Management

III. PLO-3: Business Problem Analysis

IV. PLO-4: Critical Decision Making

V. PLO-5: Logistics and the society

VI. PLO-6: Digitalization and Sustainability

VII. PLO-7: Ethics and Morality

VIII. PLO-8: Individual work and teamwork

IX. PLO-9: Adaptability to Change

X. PLO-10: Legal Knowledge of Maritime Affairs

14. Mapping Mission of the University with PEOs

PEOs	Mission 1	Mission 2	Mission 3
PEO 1	✓		✓
PEO 2		✓	
PEO 3		✓	✓
PEO 4	✓		✓
PEO 5	✓	✓	

15. Mapping PLOs with PEOs

PLOs	PEO 1	PEO 2	PEO 3	PEO 4	PEO 5
PLO 1	✓	✓			✓
PLO 2	✓	✓			✓
PLO 3	✓	✓			✓
PLO 4		✓	✓		
PLO 5	✓				✓
PLO 6	✓				
PLO 7					✓
PLO 8			✓	✓	
PLO 9		✓			
PLO 10	✓				✓

16. Mapping courses with the PLOs

Course Code & Name	**PLOs**									
	1	2	3	4	5	6	7	8	9	10
MPSM 5101 Maritime Economics and Market Analysis	✓	✓	✓	✓				✓		
MPSM 5103 Maritime Human Resource Management	✓				✓		✓	✓	✓	
MPSM 5105 International Law and Maritime Conventions		✓								✓
MPSM 5107 Advanced Research Methodology				✓			✓	✓	✓	

MPSM 5109 Port Operations and Management	✓	✓			✓	✓				
MPSM 5111 Case Study	✓	✓	✓	✓						✓
MPSM 5201 Multimodal Transportation & Logistics	✓	✓			✓	✓				
MPSM 5203 Maritime analytics	✓	✓	✓	✓		✓				
MPSM 5205 Digitalization and Automation in Port and Shipping	✓	✓				✓			✓	
MPSM 5207 Dry Cargo Trading & Chartering	✓	✓			✓				✓	
MPSM 5209 Applied Supply Chain Management	✓		✓	✓			✓		✓	
MPSM 5301 Shipping and Port Finance		✓	✓	✓			✓			
MPSM 5303 Tanker Chartering and Operations	✓	✓			✓				✓	
MPSM 5305 Marine Insurance and Practice	✓	✓					✓		✓	✓
MPSM 5307 Marine Environment Management and Sustainability		✓				✓	✓	✓	✓	
MPSM 5104 Field Trip (Internal) - I	✓	✓						✓		
MPSM 5202 Field Trip (Internal / Overseas)-II	✓	✓						✓		
MPSM 5102 Thesis – Part I	✓	✓		✓		✓	✓	✓	✓	✓
MPSM 5204 Thesis – Part II	✓	✓		✓		✓	✓	✓	✓	✓
MPSM 5302 Thesis-Part III	✓	✓		✓		✓	✓	✓	✓	✓

Part B

17. Structure of Curriculum

a) **Duration of the program:** Years: 1.5 (18 months), Semesters: 3

b) **Admission Requirements:**

Every applicant must fulfil the admission requirements as prescribed by BSMRMU. The minimum requirements for admission into the program are:

I. Applicants must hold a Bachelor's degree in any field. Preference will be given to candidates from Maritime, Science, Business, or Engineering backgrounds from any recognized university.
II. Applicants from non-maritime backgrounds will be required to complete a one-month foundation course in Port and Shipping Management at BSMRMU. The course will commence subject to a minimum enrollment of 10 students.
III. Applicants with general education must have at least a second division or CGPA of 2.25 in all public examinations.
IV. Applicants with GCE qualifications must have passed at least five subjects in O-Level, including Mathematics, and at least two subjects in A-Level. Applicants with more than two 'D' grades in O-Level or more than one 'D' grade in A-Level will not be eligible for admission.
V. Applicants with at least one year of work experience in the shipping industry will be exempted from the foundation course.

c) **Total minimum credit requirement to complete the program:**

According to BNQF (part B) for Higher Education:

Degree requirements are as follows:

i. Passing all courses with a minimum Cumulative Grade Point Average (CGPA) of 2.50 (C+) on a 4.00-point grading scale at the end of the program.

ii. Completion of Dissertation with a minimum grade of 2.50 (C+).

d) Total class weeks in a Year/semester: 26 weeks.

e) **Minimum CGPA requirements for graduation:** Scoring a CGPA 2.50 or above.

f) Maximum academic years of completion: 3 years.

g) Category of Courses:

General Education Courses:

I. MPSM 5107 Advanced Research Methodology

Core Courses:

i. MPSM 5101 Maritime Economics and Market Analysis
ii. MPSM 5105 International Law and Maritime Conventions
iii. MPSM 5109 Port Operations and Management
iv. MPSM 5201 Multimodal Transportation and Logistics
v. MPSM 5205 Digitalization and Automation in Port and Shipping
vi. MPSM 5207 Dry Cargo Trading & Chartering
vii. MPSM 5301 Shipping and Port Finance
viii. MPSM 5303 Tanker Chartering and Operations
ix. MPSM 5305 Marine Insurance and Practice

Allied courses:

i. MPSM 5103 Maritime Human Resource Management
ii. MPSM 5203 Maritime Analytics
iii. MPSM 5209 Applied Supply Chain Management
iv. MPSM 5307 Marine Environment Management and Sustainability

Capstone courses:

i. MPSM 5111 Case Study
ii. MPSM 5104 Field Trip (Internal) - I
iii. MPSM 5202 Field Trip/ Industrial Visit -II (Overseas)
iv. MPSM 5102 Thesis – Part I (Research Proposal)
v. MPSM 5204 Thesis – Part II
vi. MPSM 5302 Thesis – Part III

18. Year/ Level/Semester/Term wise distribution of courses

a) First Semester courses

Semester 1				
SI No.	Subject Code	Course Title	Credit	Contact Hours
1.	MPSM 5101	Maritime Economics and Market Analysis	3	42
2.	MPSM 5103	Maritime Human Resource Management	3	42
3.	MPSM 5105	International Law and Maritime Conventions	3	42
4.	MPSM 5107	Advanced Research Methodology	3	42
5.	MPSM 5109	Port Operations and Management	3	42
6.	MPSM 5111	Case Study	2	28
7.	MPSM 5102	Thesis – Part I (Research Proposal)	1	
8.	MPSM 5104	Field Trip (Internal) - I	1	2-3 days
Sub Total			19	

Semester 2				
SI No.	Subject Code	Course Title	Credit	Contact Hours
1.	MPSM 5201	Multimodal Transportation & Logistics	3	42
2.	MPSM 5203	Maritime analytics	3	42
3.	MPSM 5205	Digitalization and Automation in Port and Shipping	3	42
4.	MPSM 5207	Dry Cargo Trading & Chartering	2	28
5.	MPSM 5209	Applied Supply Chain Management	3	42
6.	MPSM 5202	Field Trip (Internal / Overseas)-II	1	2-3 days
7.	MPSM 5204	Thesis – Part II	3	42
Sub Total			18	

Third Semester courses

Semester 3				
SI No.	Subject Code	Course Title	Credit	Contact Hours
1.	MPSM 5301	Shipping and Port Finance	3	42
2.	MPSM 5303	Tanker Chartering and Operations	2	28
3.	MPSM 5305	Marine Insurance and Practice	3	42
4.	MPSM 5307	Marine Environment Management and Sustainability	3	42
5.	MPSM 5302	Thesis – Part III	8	
Sub Total			19	
Total			**56**	

Part C

19. Course Description by Semester

First Semester

MARITIME ECONOMICS AND MARKET ANALYSIS

PART A

1.	Course Code: MPSM 5101
2.	Course Title: Maritime Economics and Market Analysis
3.	Course Type: Core
4.	Year/Semester: Semester 1
5.	Academic Session:
6.	Course Teacher/Instructor: To be assigned
7.	Prerequisite (if any): N/A
8.	Credit value: 3
9.	Contact Hours: 42
10.	Total Marks: 100

11. Rationale of the Course:

The course provides students with a specialized understanding of the maritime industry's economic dynamics and market forces. It aims to bridge theoretical concepts with practical applications to prepare students for careers in various fields of the maritime industry. By studying maritime economics, global trade patterns, shipping market dynamics, cargo transport economics, safety

regulations and digitalization trends students gain insights into the complexities of the maritime sector and develop the skills needed to navigate its challenges. Overall, the course equips students with the knowledge and analytical tools necessary to contribute effectively to the efficient and sustainable management of maritime logistic systems.

12. Course Objectives:

The course objectives for Maritime Economics and Market Analysis aim to equip students with a deep understanding of the economic dynamics within the maritime industry. Students will explore the nuances of maritime economics, distinguishing it from traditional microeconomics and macroeconomics, and analyze both classical and modern trade theories in the context of maritime trade. They will delve into global trade patterns, including historical trends and regional variations, and gain insights into the cyclical nature of shipping markets. By interpreting factors influencing shipping rates, vessel investments, and financial management strategies, students will develop skills in navigating the complexities of shipping markets. Additionally, they will examine the economics of cargo transport, port operations, and regulatory compliance, addressing safety and environmental concerns. With a focus on emerging technologies, such as digitalization and automation, students will assess their impact on maritime operations and develop analytical and problem-solving skills essential for careers in shipping, port management, and logistics.

13. Course Learning Objectives (CLOs):

Students will be able to:

CLO 1: understand and relate micro and macro-economic principles with four aspects of international maritime transport: the demand, the supply, the market and the strategy
CLO 2: analyze the economics of shipping, port and supporting services in the maritime industry and maritime safety and environment regulations
CLO 3: forecast the demand and supply of maritime transport
CLO 4: determine the maritime transport freight and port pricing
CLO 5: apply and analyze the impact of automation and digitalization technology in the era of maritime industry 4.0

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓		✓	✓						
CLO 2	✓	✓								✓
CLO 3	✓			✓					✓	
CLO 4	✓			✓	✓					
CLO 5			✓			✓			✓	

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	CLOs
1	**Introduction to Maritime Economics**			
	Definition of maritime economics; Maritime economics vs Microeconomics, Macroeconomics; scope of maritime economics;	Lecture, independent reading, learning from web-based resources	Quiz	CLO1

	International trade: Need for trade, Classical trade theories and their limitations, New trade theories (demand-based, scale-economics & national competitive advantage theory) Globalization, Trade and development			
2	**Demand for maritime transport:**			
	Demand for shipping services, Factors influencing the demand, Concept of elasticity, Maritime demands for natural resources, primary materials and manufactured products, Relationship between sea trade and economic development, Globalized production and consumption, Changes in maritime transport demand, National maritime dependence factor.	Lecture, Class Discussion	Assignment/ Group Project	CLO1 & CLO 3
3	**Supply of maritime Transport:**			
	Role of sea transport in trade, Supply of ships, Factors contributing to the supply. The Westline theory, Geographical distribution of seaborne trade World Marchant fleet, Maritime transport productivity, Optimization of ship's carrying capacity, Productivity and structural changes in maritime transport	Lecture, Group Discussions	Quiz/ Assignment	CLO1, 2 & 4
4	**Shipping Market Economics:**			
	Shipping market model -the freight market, freight derivative market, Sale and purchase market, new building market and demolition market, Shipping market cycle, Characteristics of shipping market cycle	Lecture, Case Study	Presentation	CLO1, 2, 3 & 4

5	**Shipping economics and company economics**			
	Economics of scale & its application in shipping, Fuel economy, and Economics of port location. Costs, revenue and cash flow, Cost of running ships, Capital cost of the ship, return and Shipping company economics	Lecture, Case Study, Exercise	Quiz	CLO 1 CLO 4 CLO 5
6	**Transport of bulk and specialized cargoes**			
	Principles of bulk transport, Bulk fleet, Bulk trades, Liquid bulk transport, Crude oil trade, Oil product trade, major and minor dry bulk trade	Lecture, Visual Aid	Presentation	CLO4
7	**Transport of general cargo**			
	Origin of liner service, Economic principles of liner operation, Liner shipping routes, Pricing of liner service, Alliance, Operational challenges.	Lecture Class Discussions	Assignment	CLO 1, 2 & 4
8	**Port Economics**			
	Port systems, Port and shipping, Port assets, Port pricing, Port investment & development	Lecture	Group Study	CLO1 CLO2 CLO4
9	**Economics of supporting services for maritime transport**			
	Seafarers service market, Ship registration market, Insurance service market, Intermediary service market, Maritime fuel and bunkering market	Lecture Case-study	Quiz	CLO1 CLO2 CLO4
10	**Economics of maritime safety and environment regulations**			

	Nature of maritime safety and environmental issues, Risk-based safety and environmental issues, Optimization of environmental standards, New environmental agendas and Emission control methods	Lecture	Group Presentation	CLO1 CLO2
11	**Digitalization and automation and maritime transport**			
	Digitization, digitalization and digital transformation, Digitalization and programmability of maritime activities, Impact of digitalization on shipping and port, Smart port, smart shipping and the 4th sea transport revolution	Lecture Case study	Quiz	CLO1 CLO5
12	**Market analysis**			
	Maritime forecasting, key elements of forecasting, market research & forecast methodologies, freight rate forecasting, analytical techniques and forecasting problems	Lecture exercise	Quiz	CLO1 CLO3

PART C

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination

CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

17. Learning Materials

Text:

a) Stopford Martin, *Maritime Economics*, Routledge Taylor & Francis Group.
b) Ma Shuo, Economics of Maritime Business, Routledge Maritime Masters
c) Review of Maritime Transport by UNCTAD

MARITIME HUMAN RESOURCE MANAGEMENT

PART A

1. Course Code: MPSM 5103
2. Course Title: Maritime Human Resource Management
3. Course Type: Allied
4. Year/Level/Semester/Term: 1st Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite (if any): None
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

The course aims at developing a basic understanding in the students of the issues relating to procurement, development, appraisal, compensation, integration etc. of human resources for their optimum utilization and productivity in the organization in the context of the dynamic maritime business environment. Human resource management (HRM) views people as organizational assets and internal customers and works to create job satisfaction and employee efficiency and effectiveness. HRM concentrates on internal sources of competitive advantage. It regards people as an organization's most important asset. The Department of Human Resources (HR) communicates with employees and adapts the organization's culture and structure to their needs—for example, in negotiating with unions or re-engineering processes.HR leads the employment life cycle, from attracting and hiring the right employees to facilitating performance reviews and eventually processing terminations.

12. Course Objectives:

- Effectively manage and plan key human resource functions within organizations.
- Examine current issues, trends, practices, and processes in HRM.
- Contribute to employee performance management and organizational effectiveness.

13. Course Learning Outcomes:

Students who undertake this course will be able to:

CLO 1 Demonstrate an understanding of key terms, theories/concepts and practices within the field of HRM
CLO 2 Understands the meaning of human resource management as well as maritime human resources, the concept of the crew and manning a vessel, and the structure of the world maritime labour market.
CLO 3 Understand and analyze the fundamental processes of managing human resources in general, and more particularly in the maritime environment.
CLO 4 Compare and evaluate strategies for managing maritime human resources, both on board and ashore.

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1					✓					
CLO 2	✓				✓					
CLO 3	✓				✓					
CLO 4	✓	✓								

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	Corresponding (CLOs)
1	**Introduction to Maritime HR:** The development of HRM, The concept of MHRM, HRM at work, The changing environment of HRM, The changing role of HRM, HR manager's proficiencies, HRM as a profession.	Lecture, discussion	Assignment,	**CLO 1**
2	**Organizational considerations in managing human resources:** Organization structures, the HR department in an organization, line and staff aspects of HRM, and line manager's human-related duties.	Lecture,		**CLO 1**
3	**Strategic HRM:** The strategic management process, human resource management's role in creating competitive advantage, HRM's strategic roles in creating the strategic HRM system.	Lecture,	class test/quiz	**CLO 1**, **CLO 2**, **CLO 4**
4	**Job Analysis:** Methods for collecting information relating to job analysis, preparing job descriptions, methods and implications of job specifications.	Lecture	class test/quiz, Assignment, Presentation	**CLO 1**, **CLO 4**
5	**Maritime HR planning and recruitment:** The recruitment and selection process, planning and forecasting, effective recruiting, internal sources of candidates, and	Lecture, discussion		**CLO 1**, **CLO 2**, **CLO 4**

	external sources of candidates, developing and using application forms.			
6	**Testing and selection:** The steps in the recruitment and selection process, interviewing candidates, features of interviewing, and factors undermining the interview's usefulness.	Lecture, discussion	Assignment, Presentation	**CLO 1**, **CLO 3**
7	**Job Evaluation:** The reasons for job evaluation schemes, problem areas, procedure, techniques, non-analytical methods, analytical methods and other methods.	Lecture, independent reading, learning from web-based resources	Class test	**CLO 1**, **CLO 3**
8	**Training and Development:** Orientation of new employees, the purpose of training, the identification of the need for training, types of training, the training process, management development, evaluating the training effort and training methods.	Lecture, interactive Q&A, independent reading, learning from web-based resources		**CLO 1**, **CLO 3**, **CLO 4**
9	**Performance Evaluation:** Objectives of performance evaluation programs, methods, feedback on evaluation and improving performance.	Lecture, interactive Q&A, independent reading, learning from web-based resources	Written examination, presentation, Assignment	**CLO 1**, **CLO 3**,
10	**Career development:** Phases of career development, career development	Lecture, discussion,		**CLO 1**, **CLO 3**,

	programs for special groups, personal career development, succession planning and management.			
11	**Maritime Career development:** Phases of maritime career development, career development programs for special groups (marine), personal career development, succession planning and management.	Lecture, group discussion, case-study	Written examination, presentation, Assignment	**CLO 1**, **CLO 3**,
12	**Compensations:** Pay plans, pay for performance, financial incentives, Benefits and services.	Lecture, case study, learning from web-based resources		**CLO 1**, **CLO 2**
13	**Safety and health management:** Concepts, programs, occupational diseases and their preventive measure.	Lecture, learning from web-based resources	Written examination, presentation, Assignment	**CLO 2**, **CLO 3**
14	**Legal considerations in HRM in Bangladesh:** Labor legislations and constitutions of Bangladesh, articles affecting government employment, laws related to wages, working hours, condition of services and employment, laws related to quality and empowerment of women, laws related to sexual harassment to women at work.	Case study, independent reading, learning from web-based resources		**CLO 3**,
15	**Legal considerations in MHRM in Bangladesh:** Labor legislations and constitutions of Bangladesh, articles affecting government employment, laws related to wages, working hours,	Discussion, Interactive Q&A	Presentation, Assignment	**CLO 1**, **CLO 3**

	condition of services and employment, laws related to quality and empowerment of women, laws related to sexual harassment to women at work.			

PART C

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)

Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	**Score for the Test**
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

17. Recommended Book:

i.	DeCenzo, David A. & Robbins, Stephen P., *Fundamentals of Human Resource Management*
ii.	*Aswathappa K (2009); Human Resource Management: Text and Cases; Tata McGraw Hill.*
iii.	Dressler (2009); Human Resource Management, 11th Ed. Pearson Education.

INTERNATIONAL LAW AND MARITIME CONVENTIONS

PART A

1. Course Code: MPSM 5105
2. Course Title: International Law and Maritime Conventions
3. Course Type: Core
4. Year/Semester: 1st semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite (if any): N/A
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

Shipping and Maritime affairs are governed by various national and international laws. It's vital to study the laws and have knowledge for effective application.

12. Course Objectives:

- To have a clear understanding of various Maritime Laws, admiralty jurisdiction and law-making procedures in Bangladesh.
- To understand and have knowledge of various International Conventions, and maritime commercial laws & acquire basic legislative drafting skills

13. Course Learning Objectives (CLOs):

Students will be able to:
CLO 1: Have thorough knowledge of the legal framework of international maritime affairs, related to shipping and advanced knowledge of the Bangladesh Maritime Laws, rules and framework in the field of the maritime sector
CLO 2: Develop the student's ability to see the practical effects and make comparative analyses of different sets of regulations within the complex field of maritime Law
CLO 3: Have in-depth knowledge of maritime law related Marchant Shipping Ordinance/Act/maritime commercial activity
CLO 4: Understand and apply advanced legal theory and methods in the area.

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1										✓
CLO 2										✓
CLO 3										✓
CLO 4										✓

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	**Topic**	**Teaching-**learning Strategy	**Assessment Strategy**	**Corresponding CLOs**
Content 1	**Introduction to Maritime Law and IMO**			
Week 1	Maritime Law, Treaty, Common Law. Admiralty Law Jurisdiction IMO and its objective and function. **IMO Law-Making Process:** • Overview of IMO conventions, protocols, and amendments. • Stages of law-making: Proposal, drafting, adoption, and implementation. • Role of member states in the legislative process.	Lecture PP Presentation Face-to-face learning	-	CLO 1
Content 2	**United Nations Convention on the Law of**			

	the Sea (UNCLOS)			
Week 2	United Nations Conference on Law of the Sea UNCLOS I, II, III. Baseline, Internal waters and territorial sea. Strait used for Navigation, Archipelagic States, Contiguous zone, Continental shelf, Exclusive Economic Zone, Innocent and Transit passage, Fisheries, Land-lock and geographically disadvantaged states	Class lecture Discussions, Assignment Self-directed learning	Class Test/Quiz, Assignment, Discussion	CLO 1
Week 3	The High Seas: Legal Status of the Sea, Freedoms of High Seas, Nationality of Ships, Legal Status of Ships on the High Seas. Naval Ships, Nationality, Registration and ownership of the ship, The concept of Genuine link, Dual registry status	Class Lecture, Discussions Case-Based learning	Formative Class Test/Quiz, Assignment	CLO 2
Content 3	**Settlement of Maritime disputes**			
Week 4	Settlement of disputes, The International Tribunal for the Law of the Sea (ITLOS),	Lecture Presentation Discussion,	Class Test/Quiz, Assignment,	

	The International Court of Justice (ICJ), Arbitration, and Other Forms of Alternative Dispute Resolution (ADR)	Case study		
Content 4	**Marine Pollution Prevention**			
Week 5	International Convention for the Prevention of Pollution from Ships 1973 and Protocol 1978 as amended (MARPOL 73/78), Background history, rules and requirements under MARPOL convention, Special Area, Annexes and equipment to prevent pollution, SOPEP	Group Work Lecture	Class Test Assignment	CLO 3
Content 5	**Prevention of Pollution by Waste**			
Week 6	International Convention on the Prevention of Marine Pollution by Dumping of Waste and other Matters, 1972 and Protocol 1996 as amended.	Effective Class Discussions	Mid-term Exam	CLO 2 & 3
Week 7	**Carriage of Goods** The Law of Contract and relevant legal principles,	Effective Class Discussions		CLO 3

	Carriage of Goods by Sea Act, Hague-Visby Rules, Hamburg Rules, Rotterdam Rules, Seaworthiness of vessels, etc.			
Content 6	**National law and Ordinance**			
Week 8	The Bangladesh Merchant Shipping Ordinance, 1983; Inland Shipping Ordinance, 1976; Bangladesh Flag Protection Ordinance, 1982; Port Acts and Regulations.			
Content 6	Ship Recycling			
Week 9	Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships,2009. General obligation, Requirements, Control, Survey, Inspection, Certification, Implication of ships, Consequences Violation, Dispute settlement and Relationship with other International Laws/Agreement	Class lecture Discussions Case-Based learning		CLO 1 & 3
Content	Maritime Safety			

7				
Week 10	International Safety Management Code (ISM Code) Background history, Rules and requirements for the safe operation of Ships and for Pollution Prevention, Objective, Application, Safety and environmental protection policy, Company responsibilities & authority, DPA, Master's responsibility & Authority, Resources and personnel, Audits, Emergency preparedness.	Class lecture, PP Presentation, Discussion		CLO 4
Content 8	**Maritime Security**			
Week 11	International Safety and Port Security Code,2022. Background history, DSD, SSO, Ship security plan, ship security Assessment, CSO, Security Levels, Declaration of Security, Security Drills and Certification	Class lectures, PP Presentation, Discussion	Class Test/Quiz, Assignment,	CLO 6
Content 9	Maritime Labour Convention			
Week	The Maritime Labour	Class lecture	Quiz test	CLO 6

12 & 13	Convention,2006 (5). Purpose, Seafarer's rights, employment terms, health and safety, living and working conditions, medical care and social security	PP Presentation Discussion	Assignment	
Content 10	Case Study			
Week 14	Cases of maritime law and conventions	Discussion Analysis	Demonstration	

PART C

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%

Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

17. Learning Materials

Text:

a. The Law of the Sea by R. RChurcill,
b. The International Law of the Sea by R Rothwell
c. Shipping and Environment Law (2nd Edition) by Charles
d. Simon Baughen "Shipping Law" – Cavendish Publishing

ADVANCED RESEARCH METHODOLOGY

PART A

1. Course Code: MPSM 5107
2. Course Title: Advanced Research Methodology
3. Course Type: General Education
4. Year/Semester: 1st Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite: N/A
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

Students must understand the concepts and guidelines of research methods in conducting their thesis or any research work. This course will provide them the insights for conducting research work. Furthermore, different qualitative and quantitative research techniques will help them craft their research work and achieve research objectives.

12. Course Objectives:

The objective of this course is to introduce students to the majority of the quantitative as well as qualitative research methods used most frequently by management scholars, particularly within the domains of innovation and entrepreneurship studies. Advanced research techniques will be introduced to equip students to perform their research work in different dimensions.

13. Course Learning Objectives (CLOs):

Students will be able to:

CLO 1: Describe research problems clearly and precisely.
CLO 2: Develop a theoretical framework for a research project.
CLO 3: Apply appropriate research design and methods.
CLO 4: Conduct critical analysis of research in the various fields of business.
CLO 5: Write a well-structured research proposal, demonstrating originality and ethical responsibility.

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1			✓	✓						✓
CLO 2			✓	✓				✓		

CLO 3			✓	✓						
CLO 4			✓	✓						
CLO 5			✓	✓			✓			

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	**Topic**	**Teaching-learning Strategy**	**Assessment Strategy**	**Corresponding CLOs**
Content 1	**Introduction to Research Methodology**			
Week 1	Introduction, Overview of research types: qualitative, quantitative, and mixed methods Research design and framework	Presentation Lecture	Quiz	CLO 1
Content 2	**Formulating Research Problems**			
Week 3&4	• Techniques for identifying and formulating research questions. • Defining research scope, objectives, and hypothesis. • Importance of problem statement and justification for research.	Lecture; Case studies	Individual/ Group Assignment	CLO 1
Content 2	**Literature Review**			

Week 5, 6	Purpose of Literature Review Data sources Searching for literature Evaluating the literature Documenting the literature review	Presentation Lecture Group Discussions	Assignment	CLO 2
	Research Design and Methodology • Types of Research Designs: Descriptive, exploratory, experimental, etc. • Selecting the right research design • Qualitative, Quantitative and Mixed Method Research			CLO 3
Content 4	**Sources and Collection of Data**			
Week 7, 8	• Sources of data • Primary and Secondary Data collection method, advantages, challenges • Sampling Techniques: Probability and non-probability sampling. • Selecting an appropriate sample size for validity and reliability.	Lecture Effective class discussion Group work	Class test Quiz	CLO 3
Content	**Data Analysis Techniques**	Lecture	Lab Exercise	CLO 4

5	• Quantitative Data Analysis Descriptive statistics: Measures of central tendency, dispersion, and frequency. Inferential statistics: Hypothesis testing, chi-square, t-tests, ANOVA, and regression analysis. • Qualitative Data Analysis Coding and categorizing qualitative data (thematic analysis). Using software tools like NVivo for qualitative data analysis. • Using Software for Data Analysis: Introduction to SPSS, Excel, and other data analysis tools. Performing basic data analysis using these tools.	Group Work	Quiz	CLO 3
Content 6	**Research Ethics**			
Week 9, 10	Importance of Research Ethics; How to avoid Plagiarism; Ethical Guidelines for Data Collection.	Lecture Presentation	Presentation	CLO 5
Content 7 **Week 11**	**Citation and Referencing** • Importance of Proper Citation • Different citation styles	Lecture Interactive Activities	Practical Exercise	CLO 5

	(APA, MLA, Chicago, Harvard). • Referencing Tools and Techniques: Using reference management software (Mendeley, Zotero, EndNote). How to correctly cite books, journal articles, websites, and other sources.			
Content 7 **Week 12**	**Writing a Research Proposal** • Components of a Research Proposal: Title and abstract, introduction, Literature Review, Research Methodology • Writing the Proposal: Writing style and structure, Logical Flow. • Finalizing the Research Proposal	Lecture Presentation	Assignment	CLO 1, 2, 3 & 5
Content 8 **Week 13**	**Writing the Research Report** • **Structure of a Research Report:** Introduction, methodology, results, discussion, and conclusion.	Lecture Presentation	Assignment	CLO 1-5
Content 9 **Week**	**Presenting Research** • Preparing Oral Presentations: Crafting effective presentations with	Lecture Presentation	Presentation	CLO 1, 3, 4, 5

14	PowerPoint slides. • Preparing for Peer Review: improvements based on feedback.			

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%

Mid-term Examination	15%
Final Examination	60%
Total	100%

“In line with the curriculum structure, the instructor of the Advanced Research Methodology course will also deliver the Thesis- part I course, facilitating a smooth progression from research methodology to proposal development, and allowing students to apply the skills acquired in the methodology course."

PART D

17. Learning/ Lecture Materials

Text:

a. William C Emory, Business Research Methods, Richard D Irwin.
b. Donald R Cooper, Business Research Methods 7th Ed, McGraw Hill, 2001.
c. Krishnaswami, Ranganatha, Methodology of Research for Social Science, Himalaya, Mumbai, 2001.
d. Anderson J. et.al, Thesis and Assignment Writing, Wiley Eastern.
e. Research Methodology by C.R. Kothari

PORT OPERATIONS AND MANAGEMENT

PART A

1. Course Code: MPSM 5109
2. Course Title: Port Operations and Management
3. Course Type: Core
4. Year/Semester: 1st Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite (if any): N/A
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

This course is designed to meet the growing demand for professionals equipped with the knowledge and skills to effectively manage port operations in an increasingly complex global trade environment. Ports play a critical role in facilitating trade, logistics, and economic development, making it imperative for professionals to understand the intricacies of port management, including planning, financing, pricing, safety, security, and environmental sustainability. By offering a comprehensive curriculum covering these essential aspects, the course aims to prepare students for successful careers in port management and contribute to the efficient and sustainable operation of ports worldwide.

12. Course Objectives:

This course aims to provide students with a comprehensive understanding of port operations and management. By exploring various topics such as port development, planning, pricing, operations, safety, security, environmental management, labour issues, and policy frameworks, students will develop the knowledge and skills necessary to effectively manage and optimize port facilities. The course also emphasizes the integration of technology, logistics, and global supply chains within the

context of port management, preparing students for roles in the dynamic and evolving field of port operations. Additionally, students will analyze case studies and engage in practical exercises to apply theoretical concepts to real-world scenarios, fostering critical thinking and problem-solving abilities in the domain of port management.

13. Course Learning Objectives (CLOs):

Students will be able to:

CLO 1: Comprehend the critical role port plays in international trade, transport, and national & the impacts of an efficient port on seaborne trade, and national and regional economic development.
CLO 2: Explain the different types of ports and the diversity of specialist port operations and understand the efficient and effective port operations, foreland & hinterland connectivity and port logistics.
CLO 3: Understand the process involved in port development & planning, including infrastructure expansion, capacity optimization and strategic positioning within regional and global trade networks.
CLO 4: Analyze the different forms of the ownership structure of ports and port services, Port governance policy and national and international rules and regulations.
CLO 5: Knowledge and awareness of digitalization, automation, health, security, safety and environment management of a port.
CLO 6: Apply various pricing strategies and revenue optimization techniques in port management, considering factors such as market demand, competition and cost structure.

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓	✓	✓							

CLO 2	✓	✓		✓						
CLO 3	✓	✓								
CLO 4	✓	✓			✓					✓
CLO 5	✓	✓				✓				
CLO 6	✓	✓				✓				

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	CLOs
1	**International trade, maritime transport and Port**	Lecture,		
	Introduction to Ports, Impact of Ports on economic development, International trade, Globalization, Port Location, Types of Ports, Various terminals, Stakeholders, Statutory Organizations	Lecture	Quiz test	CLO1
2	**Port & terminal**			
	Phases of port development, Growth in world trade, Development in terminal operations, Specialized terminals – Container Terminal, Bulk terminal, Oil Terminal, RoRO Terminal, LNG-	Lecture	Written examination (short questions)	CLO2

	LPG terminal, Chemical Terminal, Cruise Terminal			
3	**Port Operations**			
	Port management services and operations (Nautical, Berth, transfer, yard & gate operations), Equipment, Documents, ICT, TOS, Gate operation module (Two stage gate operation), Single Window system, ASICUDA World, Port Community System,	Lecture, Exercise	Assignment	CLO2 CLO5
4	**Port Planning and development**			
	Objective, Capacity planning, Strategic planning- Port planning process, Approaches to port planning, Adaptive port planning, Data collection, Traffic forecasting- Forecasting method- pitfalls, Port infrastructure project evaluation, Port investment & finance	Lecture Exercise	CT	CLO2
5	**Port Performance and Productivity**			
	Productivity, Performance, Berth Performance Indicators, Handling Operation Indicators, Storage, Operations Indicators, Quality of Service Indicators, Container Terminal Performance, Connectivity performance, Environmental performance	Lecture Group work		CLO2
6	**Port Pricing, Costs & Revenue**			

	Port pricing strategies, Port and asset utilization, Pricing & customer management, Price incentives, Port pricing by port authorities, Structure of port charges,	Lecture Group work	Written Exam	CLO2
7	**Port Marketing and Competition**			
	Port its customers, Marketing objectives, Tools, & techniques of port promotion, Customer loyalty, Concept features and elements of port competition, Inter port competition, Intra port competition, Intra range competition, Port competitive advantage, Determinants of port competitiveness	Lecture	-	CLO2
8	**Port Policy**			
	Multi-level port policy-making, National policies for ports-National port policy themes, Competition policies, port related policies, International port policies, Port policy issues, Emission control, Dock labour	Lecture	CT	CLO4
9-10	**Port governance and reform**			
	Port governance (objective, tasks & configuration), Contemporary port governance model (Public, Private, Public-Private & Concession) Port Authority (Definition, function responsibility) – Landlord, Operator & Regulator, Port Authority as a cluster Manager.	Lecture		CLO4
11	**Port Occupational Health and Safety Management**			

	Port safety regulations & procedures, Risk assessment for safety management515, Risk & safety indicators, IMDG code, Accident reporting & investigation, Valuing port safety, PPE	Lecture Case-study,	Q&A	CLO5
12	**Port Security Management**			
	Regulatory framework of port security, ISPS code- Port security risk assessment, Security plan, Security equipment, Duties & Responsivity of security personnel (PFSO, SSO), DoS, Reporting procedure, CSI, 24-hour service rules, C-TPAT, Economic evaluation of port security measures, Cyber Security in port.law	Lecture		CLO5
13	**Smart Port & Green Port**			
	Smart Port / Port4.0- Definition, Driving forces**,** IoT, RFID, AI, Cloud Computing, Immersive technologies, Blockchain. Green Port-Definition, driving forces, elements, Challenges, EIA in ports, Causes of port environmental pollution, Environment Management Plan			

PART C

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy

CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination
CLO 6	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07

Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

17. Learning Materials

Text:
a. Patrick M Alderton, Port Management and Operations
b. Maria G Burns, Port Management and Operations
c. Port Economics, Management and Policy, Theo Notteboom Athanasios Pallis and Jean-Paul Rodrigue

d. ALAN E BRANCH AND MICHAEL ROBARTS. (2014). Elements of Shipping, Routledge, Taylor and Francis Group, London and New York.

CASE STUDY

PART A

1. Course Code: MPSM 5111
2. Course Title: Case Study
3. Course Type: Capstone
4. Year/Semester: 1st Semester
5. Academic Session:
6. Course Teacher/Instructor:
7. Prerequisite: None
8. Credit value: 2
9. Contact Hours: 28
10. Total Marks: 100

11. Rationale of the Course:

Case Study bridges the theory-practice gap by exposing students to real-world scenarios, fostering critical thinking, and developing problem-solving and decision-making skills essential for success in the maritime industry.

12. Course Objectives:

The Case Studies in Port & Shipping Management course aims to:

- Bridge theory and practice by analyzing real-world maritime challenges.
- Develop critical thinking and problem-solving skills for complex scenarios.
- Sharpen communication and collaboration through case discussions.
- Cultivate strategic thinking and ethical awareness in decision-making.

13. Course Learning Outcomes (CLOs): Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLO 1: Analyze real-world maritime challenges using theory.

CLO 2: Evaluate solutions and develop effective strategies for case studies.
CLO 3: Communicate findings and recommendations clearly.
CLO 4: Collaborate effectively in case study discussions.
CLO 5: Apply ethical considerations in maritime decision-making.

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge on Maritime affairs
CLO 1	✓	✓								
CLO 2		✓	✓	✓						
CLO 3					✓					
CLO 4								✓		
CLO 5							✓			

Part B:

14. Example of case study: Can be completed individually or in team.

1. An investigation into the factors militating against the growth of transit trade through the ports of Ghana: A case study of Takoradi Port

2. An evaluation of equipment-holding capacity of private stevedores in the Port of Tema and its effects on cargo-handling performance

3. Examination of the role of ports in the oil and gas industry: A case study of Takoradi Port

4. Port marketing: How customer relationship management can improve a port's end–to–end marketing activities

5. Analysis of the optimization and expansion for Pontianak Port to handle the expected increase in container traffic

6. Outsourcing practice at Indonesia Port Corporation II: Problems and solutions from a human

resources perspective Maldives

7. Study of equipment usage and maintenance in Maldives Ports Limited

8. Correlation between motivation and worker efficiency at Maldives Ports Limited

9. Hosting an e-service model in Malé Commercial Harbour

10. Port access to foreign-flagged fishing vessels in Namibia

11. A study of the impact of equipment availability on the operational efficiency in the Bulk and Break Bulk Terminal at the Port of Walvis Bay

12. An investigation into whether the Port of Walvis Bay infrastructure is sufficient for the influx of the motor vehicle industry

13. The effect of crane allocation ship turnaround time: Empirical evidence from Dar es Salaam Port

14. The effectiveness of dwell time reduction measures in Dar es Salaam Port

15. Introduction of privately owned inland clearance depots as a means to decongest

Dar es Salaam Port

Part C

15. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	- Case study selection covering diverse port & shipping issues. - Interactive lectures on key concepts & terminology. - Case analysis discussions focusing on core issues and theoretical application.	- Written case study analyses requiring application of theory to identify key challenges. - Class participation in discussions demonstrating understanding and theoretical connections.
CLO 2	- Case study discussions exploring various solutions and their effectiveness. - Guest speaker insights on real-world strategies.	- Written case study analyses proposing and evaluating solutions with justification. - Case study presentations (individual/team) outlining proposed strategies.

	- Collaborative learning activities (optional) to brainstorm and develop solutions.	
CLO 3	- Case study presentations (individual/team) practicing clear communication. - Feedback on presentation skills (structure, delivery, visuals).	- Case study presentations assessed on clarity, conciseness, and effectiveness in conveying findings and recommendations. - Class participation evaluating communication skills during discussions.
CLO 4	- Collaborative learning activities (optional) requiring teamwork and communication. - Group discussions with assigned roles to encourage participation.	- Peer evaluation for teamwork and communication during collaborative learning activities (optional). - Class participation observations assessing collaborative engagement in discussions.
CLO 5	- Case study selection including scenarios with ethical dilemmas. - Discussions on ethical principles in maritime business practices. - Integration of ethics considerations into case analysis and solution development.	- Written case study analyses demonstrating consideration of ethical implications in proposed solutions. - Class participation observations assessing ethical considerations raised during discussions.

Thesis – Part I (Research Proposal)

PART A

1.	Course Code: MPSM 5102
2.	Course Title: Thesis – Part I (Research Proposal)
3.	Course Type: Capstone
4.	Year/Semester: 1st Year, 1st Semester
5.	Academic session:
6.	Course Teacher/Instructor: Advanced Research Methodology
7.	Prerequisite (if any): Research Methodology
8.	Credit value: 1
9.	Contact Hours: 14
10.	Total Marks: 100

11. Rationale of the Course

This course is designed to equip students with the skills to develop a comprehensive research proposal as a foundation for independent academic inquiry. In this first semester, the "Advanced Research

Methodology" course provides a theoretical framework for research, while "Thesis-I" offers practical experience in applying these research methodologies to develop a research proposal.

12. Course Objectives:

The objectives of this course are to:

- Guide students in developing a comprehensive research proposal.
- Guide students in performing thorough literature reviews, using proper citation methods, and accurately compiling reference lists.
- Support students in identifying appropriate research methodologies and designing research steps.
- Enhance students' skills in planning and structuring a quality research proposal.

13. Course Learning Outcomes (CLOs): Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

Students will be able to:
CLO 1: Clearly define a research topic and create a suitable title.
CLO 2: Review existing literature in a clear and organized way.
CLO 3: Design a research plan and methodology to address the research question.
CLO 4: Use correct citation and referencing methods.
CLO 5: Write a research proposal with proper originality.

CLOs	**PLO 1: Maritime Logistics Knowledge**	**PLO 2: Shipping Operations & Management**	**PLO 3: Business Problem Analysis**	**PLO 4: Critical Decision Making**	**PLO 5: Logistics and the society**	**PLO 6: Digitalization & Sustainability**	**PLO 7: Ethics and Morality**	**PLO 8: Individual work and teamwork**	**PLO 9: Adaptability to Change**	**PLO 10: Legal Knowledge of Maritime Affairs**
CLO 1	✓		✓						✓	
CLO 2	✓				✓	✓				
CLO 3		✓		✓					✓	
CLO 4						✓	✓			✓

CLO 5			✓				✓		✓	✓

PART B

14. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	Corresponding (CLOs)
1 and 2	Selection and formulation of research topic, title, and concept	Lecture, Group Discussion	-	CLO 1
3	Identification and analysis of the research problem	Case studies; problem-solving exercises.	-	CLO 1
4, 5	Conducting a thorough review of relevant literature	Lecture, Group Discussion	-	CLO 2
6,7	Understanding data types and identifying appropriate data sources	Lecture, Group Discussion	-	CLO 3
8, 9	Designing a research methodology	Interactive Lecture session	-	CLO 3
10,11	Awareness and prevention of plagiarism	Lecture, Group Discussion	-	CLO 5
12, 13	Mastery of citation techniques and styles	Interactive Lecture session	-	CLO 4

14	Development and presentation of a research proposal	Lecture, Group Discussion	-	CLO 5

Part C

15. Assessment and Evaluation

The assessment for this course will be divided into three parts: the thesis proposal, presentation, and oral exam. These components will be evaluated based on specific criteria to ensure a thorough and fair evaluation of the student's work. The final presentation will be evaluated by a committee consisting of faculty members, including the President, two to three other members, and the Member Secretary.

Students will prepare the thesis proposal, including the proposed supervisor and co-supervisor's names, with the guidance and support of the course instructor. Based on the assessment and committee feedback, the thesis topic and supervisor names will be submitted to the Board of Undergraduate Research and Studies (BUGSR) for approval.

The marks distribution is as follows:

Content	Marks
Thesis Proposal	60%
Presentation	30%
Oral Exam	10%

PART D

26. Learning Materials

1) Recommended Readings:
• Kothari, C.R., 2004. Research Methodology: Methods and techniques. New Age International.
• Creswell John W., 1994. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Paperback)

Study Tour (Internal) - I

PART A

1. Course Code: MPSM 5104
2. Course Title: Study Tour (Internal)-I
3. Course Type: Capstone
4. Year/Semester: 1st Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite (if any): None
8. Credit value: 1
9. Contact Hours: 2-3 days
10. Total Marks: 100

11. Rationale of the Course:

The course offers students a broad spectrum of hands-on learning experiences, promoting an extensive understanding of maritime operations and the dynamics of the sector.

12. Course Objectives:

This course will help the students relate theoretical knowledge to practical fields.

13. Course Learning Outcomes (CLOs):

On successful completion of this unit, students should be able to:

CLO 1: Demonstrate an understanding of the maritime and offshore industries of Bangladesh;
CLO 2: Describe the importance of the development of the shipbuilding and offshore sectors of Bangladesh.
CLO 3: Investigate operational procedures and logistical challenges within Bangladesh's port facilities.
CLO 4: Evaluate regulatory frameworks governing marine activities in Bangladesh, analyzing their influence on industry standards and international compliance.

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓	✓								
CLO 2	✓									
CLO 3	✓				✓					
CLO 4										✓

PART B

15. **Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.**

Study tour to various maritime and offshore industries for example marine design firms, shipyards, dry-docks, ports, oil and gas companies, etc. The distribution of marks for the performance evaluation of each student on the study tour is given below:

a. Attendance: 20%

b. Participation: 20%

c. Report Submission: 30%

d. Presentation: 30%

Second Semester

MULTIMODAL TRANSPORTATION AND LOGISTICS

PART A

1. Course Code: MPSM 5201
2. Course Title: Multimodal Transportation and Logistics
3. Course Type: Core
4. Year/Semester: 2nd Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite (if any): None
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

Multimodal transport plays a key role in transporting goods in the international supply chain. This course covers the interrelationship between all modes of transport used in international trade. To be successful in logistics requires a multi-faceted knowledge including a sea movement leg as well as intermodal transport and logistics. This course develops advanced knowledge and analytically presents the multimodal transportation business from a commercial, operational, economic, financial, legal, and contractual perspective.

12. Course Objectives:

This course covers the fundamentals of multimodal business and associated logistic processes. Students will be able to evaluate the essentials of the multimodal transportation business, including the processes, policies, strategies, behaviours, obligations, rights, and decisions of trade upon completion of this course.

13. Course Learning Outcomes (CLOs):

Upon successful completion of this course, the student will be able to:

CLO 1: Understand the basic concepts of Multimodal Transportation and the role of transportation in international business.
CLO 2: To understand the role of containerization and its contribution to Multimodal transportation.
CLO 3: To understand and apply their knowledge and understanding of the different transport modes, compare with commercial and ecological implications.
CLO 4: To understand the role of all the parties involved in managing international trade including business partners such as custom agents, NVOCC, MTO, and other 3PL and 4PL
CLO 5: To understand the legal framework governing Multimodal transport in Bangladesh and International conventions and practices.

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓				✓					
CLO 2	✓	✓			✓					
CLO 3	✓	✓			✓					
CLO 4	✓	✓			✓					
CLO 5	✓				✓					✓

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-learning Strategy	Assessment Strategy	Corresponding CLOs
Content 1	Introduction to the Multimodal / Intermodal / Combined Transport:			
Week 1	Indicative Structure: Definitions of Intermodal transport chain and actors: shipper (exporter), freight forwarder, transport agent, carrier and consignee (importer). Multimodal Transport Operator (MTO), MTD, MTC, concepts, benefits, current scenario, challenges faced and reforms.	Lecture Discussion	Class test Written Examination	CLO 1
Content 2	Key concepts related to the Multimodal transport:			
Week 2	Indicative Structure: Overview of Rail-Road, Rail-Road-Sea, Road-Air-Road Transport, rolling road, ro-ro, consolidation, transhipment, Incoterms, Role of seaports, airports, ICDs/CFS, terminals, in multimodal transportation	Lecture Discussions Self-directed learning	Class test Written Examination	CLO 1 CLO 4

Content 3	Overview of intermodal transportation:			
Week 3 & 4	Indicative Structure: Types of Ships, Definition of Intermodal Transport, Various aspects of Intermodal Transport, Role of NVOCCS, Trade Financing Options, Letter of Credits, Role of Intermediaries like Freight forwarders, ship brokers, ship agents, Port authorities.	Lecture	Class test Written Examination	CLO 1 CLO 4
Content 4	C&F (Clearing & Forwarding):			
Week 5& 6	Indicative Structure: Introduction of C&F- Agent, Required documents for C&F Agent license, Procedure for C&F License, Required documents for renewal the license of C&F Agent, Documents for release the goods from customs, Documents for the exported goods, H.S code and its importance, Bill of Entry, Land Ports, IGM & EGM, Assessable Value & Invoice value, Tax Holiday & Duty Drawback, Concept on L/C, customs, commercial related documents, Customs Formalities, Tariff of Import and Export goods, Calculation of Tariff of Import goods, Calculation of	Lecture Calculations Case-Based learning	Midterm Written Examination	CLO 1 CLO 4

	C&F Agent commission, Bill preparation of C&F Agent`s commission; Export, Import, and Shipping documents, ASYCDA World			
Content 5	Freight Forwarding:			
Week 7&8	Indicative Structure: Freight Forwarding Agent, Documents for Freight Forwarding Agent license, Responsibilities of Freight Forwarding Agent, Partial shipment & Transshipment, Booking Procedure (Air and Sea Shipment), Banned Items to Import and Export, Shipping lines (International), LCL & FCL Cargo, Various Charges in Port	Effective Class Discussions	Midterm Written Examination	CLO 4
Content 6	Bill Of Lading			
Week 9	Indicative Structure: Role and functions, how it works, Type of B/L and their role	Effective Class Discussions, Case-Based learning	Midterm Written Examination	CLO 5
Content 7	Infrastructure and multimodal equipment			
Week 10	Indicative Structure: Intermodal terminal, multimodal platform, nodal point (HUB), dry port,	Effective Class Discussions	Written Examination	CLO 3

	cranes. Multimodal Transport Units: semi-trailer, intermodal wagons (pocket, kangaroo, basket), swap body, semi-trailer			
Content 8	Containerization:			
Week 11	Indicative Structure: Evolution of containerization, Contribution of Malcolm Mclean in containerization, Types of containers, Benefits of containerization, Marking of Container, Growth prospects of trade with containerization. Intermodal Loading Units (ILU): ISO container	Lecture Class Discussions,	Written Examination	CLO 2
Content 9	International Conventions			
Week 12	Indicative Structure: International Conventions on Intermodal transport, Dangerous goods classification, Regulations concerning dangerous goods regulations, Hague-Visby Rules, Hamburg Rules, Warsaw Convention, Rotterdam Rules, UN, UNCTAD/ICC Rules for Multimodal Transport Documents, FIATA Multimodal transport documents	Lecture Effective Class Discussions	Written Examination	CLO 5
Content	Trade Facilitation			

10				
Week 13	Indicative Structure: WTO Trade Facilitation Agreement (TFA), World Customs Organization (WCO), Revised Kyoto Convention (RKC), International Convention on the Harmonization of Frontier Controls of Goods (UNECE)			CLO 5
Content 11	Case study:			
Week 14	Indicative Structure: • The Port of Algeciras (Spain): an intermodal logistics platform and a hub port in the Mediterranean • Hong Kong: the world's leading cargo transshipment hub • Intermodal Terminal of the CFL Group (Luxembourg) • The Sri Lanka Multimodal Transport Project • Economic Impact of the Enhanced Multimodal Connectivity in the APEC Region	Lecture Effective Class Discussions Case study	Assignment	CLO 1 CLO 2 CLO 3 CLO 4 CLO 5

PART C

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05

Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	**Score for the Test**
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

17. Learning Materials

a. Training Material on “Multimodal Transport Law and Operations” by Association of Southeast Asian Nations (ASEAN) 2014
b. Multimodal Transportation Concept and Framework by UNESCAP
c. Multimodal Transport Operations Introduction by UNESCAP
d. Multimodal transport in developing countries by Shrikant Kher
e. EXPORT/IMPORT PROCEDURES and DOCUMENTATION (FOURTH EDITION) BY THOMAS E. JOHNSON and DONNA L. BADE
f. Shipping and Logistics Management by Y.H.V. Lun · K.-H. Lai · T.C.E. Cheng

MARITIME ANALYTICS

PART A

1. Course Code: MPSM 5203
2. Course Title: Maritime Analytics
3. Course Type: Allied
4. Year/Semester: 2nd Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite: N/A
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

Business decisions based on gut feeling don’t provide a conclusive decision-making perspective. Decision-making based on data would certainly help an executive to achieve ultimate success. This will have a significant impact on decision-making based on analytical skills in the maritime industry.

12. Course Objectives:

The objective of this course is to introduce students to the latest developments and adoption of information technology in port management and international trade to operate with environmental impacts in mind and take steps to mitigate these wherever possible.

13. Course Learning Objectives (CLOs):

Students will be able to:

CLO 1: Be able to apply statistical tools and methods in the day-to-day shipping business practice
CLO 2: Be able to examine empirical techniques employed to actual maritime-related market data
CLO 3: Be able to analyze quantitative techniques and models for transportation and logistics problems
CLO 4: Be able to simulate computer-based statistical analysis and operations research tools with shipping and port data
CLO 5: Be able to apply different transport modelling tools to model the transportation modes and network

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1						✓			✓	
CLO 2		✓				✓			✓	
CLO 3	✓		✓		✓			✓		
CLO 4						✓	✓			✓
CLO 5					✓		✓		✓	✓

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-learning Strategy	Assessment Strategy	Corresponding CLOs
Content 1	The Classical Linear Regression Model			
Week 1, 2, & 3	Regression Model What is a regression model? Simple linear regression Possible forms of the regression function The assumptions of the Ordinary Least Squares Properties of OLS Precision and standard errors Hypothesis testing Normal and t probability distributions Confidence intervals Eviews tutorial session	Lecture Presentation Face-to-face learning Software simulation	Class test Written Examination	CLO 1
Content 2	Multiple Linear Regressions			
Week 4	Generalizing the simple model How the parameters are calculated? Testing single hypothesis: the t-test	Effective Class Discussions Self-directed learning	Class test Written Examination	CLO 3
Week 5	Testing multiple hypotheses:	Effective Class	Quiz test	CLO 5

	The F-test The relationship between the t- and F-distributions The goodness of fit statistics Eviews tutorial session	Discussions Case-Based learning		
Content 3	Issues with the Classical Regression Model			
Week 6	Violations of the assumptions Dynamic models Multicollinearity	Lecture Presentation Group Work	Class test	CLO 2
Week 7	Adopting the wrong functional form Parameter stability tests Eviews tutorial session	Lecture Presentation Group Work	Case study	
Content 4	Univariate Time-Series Modelling and Forecasting			
Week 8	Strictly and weakly stationary process White noise process Moving Average (MA) processes Autoregressive (AR) processes	Team-Based Learning Case Based Learning	Critical problem solving	CLO 1 & 4
Week 9 & 10	Autoregressive Moving Average (ARMA) processes Time-series Forecasting in Shipping using ARMA models in Eviews Information criteria for ARMA model selection Eviews tutorial session	Lecture	Assignment	CLO 4
Content	Transport Modelling			

5				
Week 11	Choice modelling	Effective Class Discussions	Software simulation	CLO 1 & 5
Week 12	Cost Benefit Analysis	Effective Class Discussions		CLO 5
Content 6	Application of operations research in port and shipping			
Week 13 & 14	MCDA, DEA, Linear Programming	Effective Class Discussions	Report writing	CLO 3

PART C

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%

Final Examination	60%
Total	100%

PART D

17. Learning Materials

A.	Advances in Shipping Data Analysis and Modeling: Tracking and Mapping Maritime Flows in the Age of Big Data (Routledge Studies in Transport Analysis) (1st Edition) by **César Ducruet**
B.	Guide to Maritime Informatics by Alexander Artikis and Dimitris Zissis, Publisher: Springer Cham

DIGITALIZATION AND AUTOMATION IN PORT AND SHIPPING

PART A

1. Course Code: MPSM 5205
2. Course Title: Digitalization and Sustainability in Port and Shipping
3. Course Type: Core
4. Year/Semester: 2nd Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite (if any): N/A
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

Digital transformation in the maritime industry is highly prevalent like other service industries. To cope with the constant technological changes in the maritime industry, the course will provide an

analytical view of digitalization in the port and shipping industry. Furthermore, sustainability practices will also be explored through this course.

12. Course Objectives:

The objective of this course is to introduce and analyze digital devices used in the port and shipping industry. In addition, the course aims to explore the best practices for sustainable port and shipping industry. The course is also designed to introduce students to the latest developments and adoption of information technology in port management and international trade to operate with environmental impacts in mind and take steps to mitigate these wherever possible

13. Course Learning Objectives (CLOs):

Students will

CLO 1: Be able to understand contemporary ICT development and adoption in port & shipping
CLO 2: Be able to simulate the smart port management software
CLO 3: Be able to operate trade facilitation tools
CLO 4: Be able to understand and apply AI and IoT in different maritime industries
CLO 5: Be able to understand the strategies and activities that a port undertakes to meet the current and future needs of those who use it while protecting and sustaining human and natural resources

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1						✓			✓	
CLO 2		✓				✓			✓	
CLO 3	✓			✓	✓			✓		

CLO 4						✓	✓			✓
CLO 5					✓		✓		✓	✓

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	**Topic**	**Teaching-learning Strategy**	**Assessment Strategy**	**Corresponding CLOs**
Content 1	Introduction to technological trends			
Week 1 & 2	Introduction to automation, digitalization, big data, cloud computing, AI, VR, blockchain	Lecture Presentation Face-to-face learning	Group work	CLO 1
Content 2	Introduction to sustainability			
Week 3	Environmental, social and economic sustainability	Effective Class Discussions Self-directed learning	Quiz	CLO 3
Week 4	Ways to make a port and shipping sustainable. National impact on its economy of a sustainable port.	Effective Class Discussions Case-Based learning	Group/ Individual presentation	CLO 5
Content 3	Defining smart ports and green ports			
Week 5 & 6	Smart port, green port, terminal operating systems, NAVIS, SPARCS	Lecture Presentation Group Work	Assignment	CLO 2
Content 4	Digitalization in the Shipping Industry			
Week 7 &	Maritime autonomous and	Team-Based Learning	Case Study	CLO 1 & 4

8	surface ships, AIS, RIS, big data in shipping	Case Based Learning		
Week 9	Digital twin, AI and VR in shipping	Lecture	Class test	CLO 4
Content 5	Digitalization in international trade			
Week 10	Electronic Bills of Lading	Effective Class Discussions	Problem-solving cases	CLO 1 & 5
Week 11	Blockchain in international trade	Effective Class Discussions		CLO 5
Content 6	Trade facilitation tools.			
Week 12	ASYCUDA for customs and trade facilitation	Effective Class Discussions	Assignment	CLO 3
12	National Single Window (NSW)			CLO 3
Content 7	Industry 4.0 and Maritime 4.0			
Week 13	Maritime Single Window, Just in Time, Cyber Security		Quiz	CLO 3
Content 7	Overview of local and international port environmental regulations.			
Week 14	Environmental regulations and practices in port, shipping and trade	Case-Based learning, Group work	Quiz Report writing	CLO 2

PART C

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07

Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

17. Learning Materials

1) Text:
a. Maritime-Port Technology and Development (2015) Edited By Sören Ehlers, Bjorn Egil Asbjornslett, Ornulf Jan Rodseth, Tor Einar Berg
b. Port Strategy for Sustainable Development, Elvira Haezendonck (Ed.)
2) Supplementary Readings

a. Environmental Impact of Ships (Cambridge Environmental Chemistry Series) 1st Edition, by Stephen de Mora (Editor), Timothy Fileman (Editor), Thomas Vance (Editor)
b. The Application of Blockchain Technology in the Maritime Industry (Book Chapter: Green IT Engineering: Social, Business and Industrial Applications) by Karen V. Czachorowski and Yuriy Kondratenko.

DRY CARGO TRADING & CHARTERING

PART A

1. Course Code: MPSM 5207
2. Course Title: Dry Cargo Trading and Chartering
3. Course Type: Core
4. Year/Semester: 2nd Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite: None
8. Credit value: 2.00
9. Contact Hours: 28
10. Total Marks: 100

11. Rationale of the Course:

This course provides essential knowledge and skills for managing maritime dry bulk cargo. Port and shipping management students must comprehend dry bulk commerce and chartering. This knowledge is crucial to marine transportation's efficiency, profitability, and safety. This course teaches students how to navigate dry bulk trading and improve cargo transportation. Freight markets, chartering contracts, finances, laytime calculations, and dispute settlement are covered.

12. Course Objectives:

The key objective of the course is to facilitate the acquisition of a thorough comprehension of the fundamental principles, operational methodology, and strategic approaches associated with the trading

and chartering of dry bulk cargoes. Students will acquire the essential abilities to proficiently examine market trends, negotiate charter agreements, compute laytime, estimate voyage expenses, and manage disputes and claims related to dry bulk shipping through theoretical knowledge, practical case studies, and hands-on activities.

13. Course Learning Outcomes (CLOs):

CLO 1: Understand world trade, dry cargo, and dry ships to make informed dry bulk trading and chartering decisions.
CLO 2: Interpret and negotiate charter party clauses to maximize benefits and minimize risks in dry bulk shipping agreements.
CLO 3: Analyze charter parties like TCE to maximize revenue and cost management techniques for dry bulk profitability.
CLO 4: Apply laytime calculations, voyage estimation, and cargo claim management to streamline dry bulk shipping.
CLO 5: Identify and resolve disputes and indemnity concerns using appropriate methods to limit risks and comply with industry standards.

14. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓	✓			✓					
CLO 2	✓	✓	✓		✓					✓
CLO 3		✓	✓	✓						
CLO 4		✓	✓	✓						
CLO 5			✓	✓						✓

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	Corresponding (CLOs)
1	Introduction to world trade, dry cargo types, dry ship types	Class Lecture	Class Test (Quiz)	CLO 1
2	Freight Markets and Market Practice	Class Lecture		CLO 1
3,4	Chartering Contracts	Class Lecture	Class Test (Quiz)	CLO 2
5	Time Charter Party Clauses	Class Lecture	Midterm	CLO 2
6	Voyage Charter Party Clauses	Class Lecture	Midterm	CLO 2
7,8	Financial Elements of the Charter Party	Class Discussion	Midterm	CLO 3
9	Laytime Calculations	Case Study	Assignment	CLO 4
10	Voyage Estimation	Case Study		CLO 4
11	Dry Freight Time Charter Equivalent (TCE)	Case Study	Assignment	CLO 3
12	Bills of Lading and Cargo Claims	Class Discussion	Class Test (Quiz)	CLO 4
13, 14	Disputes and Professional Indemnity	Class Lecture		CLO 5

Part C

16. Assessment and Evaluation

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07

Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

17. Learning Materials

1) Recommended Readings:
• Dry Cargo Trading & Chartering published by Lloyd's Maritime Institute
• Shipbroking and Chartering Practice, Author: Evi Plomaritou, Anthony Papadopoulos Publisher: Lloyd's Practical Shipping Guides
2) Supplementary Readings:
• Dry Cargo Chartering published by the Institute of Chartered Shipbrokers
3) Others:
• The Essential Guide to Chartering and the Dry Freight Market, Author: Nick Collins, Publisher: Clarksons Research Studies, London, England

Applied Supply Chain Management

PART A

1. Course Code: MPSM 5209
2. Course Title: Applied Supply Chain Management
3. Course Type: Allied
4. Year/Semester: 2nd Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite: None
8. Credit value: 03
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

12. Course Objectives:

The prime objective of this course is to introduce students to the principles and practices of maritime supply chain management with a specific focus on the strategic role that it plays in helping organizations build and maintain competitive advantage. The course will explore the theory and practice of maritime supply chain management across the following areas: concepts and fundamentals of supply chain management, Supply Chain Performance, supply chain drivers and metrics, inventory control and management, demand forecasting, designing distribution networks and applications to online sales, aligning the Supply Chain with Business Strategy, transportation management and plant location.

13. Course Learning Outcomes (CLOs): Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLO 1: Students will know about concepts and fundamentals of applied supply chain management.

CLO 2: Identify the role of maritime supply chain management in business as well as the role of port and shipping in supply chain management.
CLO 3: Apply the principles of maritime supply chain management to the industry in the areas of distribution channel management, network design options and manufacturer-to-customer relationships.
CLO 4: Design and develop inventory control through forecasting, warehousing and stores
management, Routing, and transportation management.
CLO 5: Apply maritime supply chain performance drivers and key enablers in supply chain improvement.
CLO 6: Be acquainted with aligning the maritime supply chain with business strategy, and logistical Information system.

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓				✓					
CLO 2	✓		✓		✓					
CLO 3	✓	✓	✓		✓			✓		
CLO 4	✓				✓					
CLO 5	✓				✓					
CLO 6	✓		✓		✓		✓			

PART B

16. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	Corresponding (CLOs)
1	**Fundamentals of Applied Supply Chain Management:** • basic functions, nature and concept, components and participants of SCM. • importance of Supply Chain and Value Chain of Supply Chain.	Lecture discussion with multimedia -Group Discussion -Case Study	Assignment	CLO 1 & 2
2	**Concepts of Logistics:** • definition of logistics and types of logistics. • Logistics Management and Warehouse Management • Automation and Outsourcing, • A Perspective - Concepts in Logistics and Physical Distribution - Distribution and Inventory	-Lecture discussion with multimedia -Group Discussion -Case Study -Video presentation	Case Study Analysis	CLO 1 & 3
3 & 4	**Role of a Manager in Supply Chain:** • Supply Chain Performance Drivers • Key Enablers in Supply Chain Improvement • Different Systems and Values of Supply Chain	Lecture discussion with multimedia -Group Discussion -Case Study -Video presentation	Conduction of face-to-face discussion sessions, Quiz test	CLO 2

5 & 6	**Demand Forecasting, Warehousing and Stores Management:** • concept of recruitment, selection & placement. • process of recruitment, selection & placement • Different methods of recruitment, selection & placement.	Lecture discussion with multimedia -Group Discussion -Case Study -Video presentation	Conduction of face-to-face discussion session	CLO 4
7	**Aligning the Supply Chain with Business Strategy:** • how a company achieves strategic fit between its supply chain strategy and its competitive strategy. • why achieving strategic fit is critical to a company's overall success.	Lecture discussion with multimedia -Group Discussion -Case Study -Video presentation	Quiz	CLO 4
8 & 9	**Plant location- Facility location and layout planning:** • factors influencing supply chain network design decisions. • framework for making network design decisions • optimization for facility location and capacity allocation decisions.	-Lecture discussion with multimedia -Group Discussion -Case Study -Video presentation	Assignment	CLO 4
10	**Elements of Logistics and Supply Chain Management:** • identify material handling and order processing.	-Lecture discussion with multimedia		CLO 4

	• latest methods of transportation and demand forecasting.	-Group Discussion -Case Study -Video presentation		
11& 12	**Designing Distribution Networks and Applications for Online Sales:** • key factors of designing a distribution network. • strengths and weaknesses of various distribution options • Effects of online sales on the design of distribution networks in different industries.	-Lecture discussion with multimedia -Group Discussion -Case Study -Video presentation	-Conduction of open discussion session -Questions & Answers Session	CLO 6
13& 14	**Managing Economies of Scale in a Supply Chain (Cycle Inventory):** • impact of quantity discounts on lot size and cycle inventory • balancing appropriate costs to choose the optimal lot size and cycle inventory in a supply chain. • appropriate discounting schemes for a supply chain	-Lecture discussion with multimedia -Group Discussion -Case Study -Video presentation	Group work	CLO 6

Part C

17. Assessment and Evaluation

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination

CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07

Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

16. Learning Materials

1) Recommended Readings: KrishnaveniMuthiah, Logistics Management and Seaborne Trade" Himalaya Publishing House
2) Supplementary Readings:
• D.K.Agarwal. Textbook of Logistics and Supply Chain Management, Mc Millan India Ltd.
• Martin Christoper, Logistics and Supply Chain Management, Pearson Education, 2003.
• Ronald H. Ballou, Business Logistics and Supply Chain Management, Pearson Education.
• G Raghuram& N Rangaraj, Logistics and Supply Chain Management - Cases and Concepts. Mac Millan

• Martin Christopher, Logistics & Supply Chain Management: Creating Value-Adding Networks, FT Press.
• Janat Shah, Supply Chain Management: Text and Cases, 1st Edition, Pearson. 8. D K Agrawal, Textbook of Logistics and Supply Chain Management, MacMillan 2003, 1st Edition

Study Tour (Internal/Overseas) - II

PART A

1. Course Code: MPSM 5202
2. Course Title: Study Tour (Internal/Overseas)-II
3. Course Type: Capstone
4. Year/Semester: 2nd Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite (if any): None
8. Credit value: 2
9. Contact Hours: 2-3 days
10. Total Marks: 100

11. Rationale of the Course

In the Master's program, students participate in two field visits: one within the country and the other overseas. If the overseas tour cannot proceed under any unforeseen circumstances, it will be substituted with an alternative visit within the country.

12. Course Objectives

This course will help the students relate theoretical knowledge to practical fields.

13. Course Learning Outcomes (CLOs): Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

On successful completion of this unit, students should be able to:

CLO 1: Demonstrate an understanding of the maritime and offshore industries of foreign countries;

CLO 2: Describe the importance of the development of the shipbuilding and offshore sectors of foreign countries.
CLO 3: Investigate operational procedures and logistical challenges of overseas port facilities.
CLO 4: Evaluate regulatory frameworks governing marine activities of foreign countries, analyzing their influence on industry standards and international compliance.

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓	✓								
CLO 2	✓									
CLO 3	✓				✓					
CLO 4										✓

PART B

14. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Study tour to various maritime and offshore industries for example marine design firms, shipyards, dry-docks, ports, oil and gas companies, etc. The distribution of marks for the performance evaluation of each student on the study tour is given below:

a. Attendance: 20%

b. Participation: 20%

c. Report Submission: 30%

d. Presentation: 30%

Thesis – Part II

PART A

1.	Course Code: MPSM 5204
2.	Course Title: Thesis – Part II
3.	Course Type: Capstone
4.	Year/Semester: 2nd Semester
5.	Academic session:
6.	Course Teacher/Instructor: Individual Supervisor and Co-Supervisor (if any)
7.	Prerequisite (if any): Research Methodology
8.	Credit value: 3
9.	Contact Hours: 42
10.	Total Marks: 100

11. Rationale of the Course

This course focuses on the essential components of a thesis, including the introduction, literature review, and the design of a questionnaire. The program aims to develop fundamental research skills, alleviate stress, and support students in successfully completing their thesis by offering structured assistance and fostering an encouraging learning environment.

12. Course Objectives:

Students will have the opportunity to prepare the Introduction, Literature Review, and Methodology (focused on formulating questionnaires) chapters for their thesis

13. Course Learning Outcomes (CLOs): Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

Students will be able to:
CLO 1: To write an effective introduction chapter incorporating background information, research questions, and a rationale for the study.

CLO 2: To learn how to effectively do a literature review, which involves locating important ideas, assessing sources, and combining current research which involves identifying important ideas, analyzing sources, and incorporating current research.
CLO 3: To formulate a questionnaire for data collection, including selecting appropriate survey items, designing response formats, and ensuring clarity and validity in questionnaire construction.

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1			✓	✓						✓
CLO 2	✓		✓		✓					
CLO 3		✓				✓		✓		

PART B

14. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	Corresponding (CLOs)
1-6	Introduction: Development of the historical and contextual background of the study, clearly identifying the research questions, objectives, scope and aims outlining the significance and extent of the research, and offering an outline of	Lecture, Group Discussion	Report Writing & Presentation	CLO 1

	the structure and arrangement of the thesis.			
7, 8, 9, 10 & 11	Literature Review: Analyses of existing scholarly articles, combining relevant research findings, conceptual frameworks, and methodologies to provide a comprehensive understanding of the research topic and identify gaps in current knowledge.	Lecture, Group Discussion	Report Writing & Presentation	CLO 2
12,13 & 14	Methodology (Questionnaire): Formation of questionnaire part only.	Lecture, Group Discussion	Report Writing & Presentation	CLO 3

Part C

15. Assessment and Evaluation

The assessment for this course will be divided into three parts: the thesis report, presentation, and oral exam. These components will be evaluated based on specific criteria to ensure a thorough and fair evaluation of the student's work. The final presentation will be evaluated by a committee consisting of faculty members, including the President, two to three other members, and the Member Secretary.

The marks distribution is as follows:

Content	Marks
Thesis Report	60%
Presentation	30%
Oral Exam	10%

PART D

26. Learning Materials

1) Recommended Readings:
• Kothari, C.R., 2004. Research Methodology: Methods and techniques. New Age International.
• Creswell John W., 1994. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Paperback)

Third Semester

SHIPPING AND PORT FINANCE

PART A

1. Course Code: MPSM 5301
2. Course Title: Shipping and Port Finance
3. Course Type: Core
4. Year/Semester: 3rd Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite: N/A
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

The rationale behind this course is to meet the growing demand for professionals with specialized financial expertise tailored to the maritime industry. As global shipping and port operations play

essential roles in international trade and economic development, there is a significant need for skills in managing the unique financial challenges of ports, vessels, and shipping markets. This course addresses this need by offering a comprehensive foundation in shipping investment, financing methods, risk management, and port development strategies. With added emphasis on real-time market analysis and the role of international maritime organizations, students will gain insight into global trends, regulatory frameworks, and best practices within the industry. Through the inclusion of case studies on industry failures, students will also learn about risk mitigation and strategic decision-making, preparing them for effective and sustainable contributions to maritime finance.

12. Course Objectives:

This course is designed to build students' proficiency in maritime finance by blending theory with hands-on application. Students will explore the financial landscape of the maritime industry, learning to assess investment opportunities, financing models, and risk management strategies. The course provides in-depth exposure to cash flow analysis, project appraisal, and the financial dynamics of both ports and shipping. Furthermore, students will analyze revenue management in port operations, evaluate financial statement data, and investigate project financing for infrastructure. The course encourages informed decision-making, risk assessment, and effective financial planning, equipping graduates to excel in the rapidly evolving maritime finance sector and promote its sustainable growth.

13. Course Learning Objectives (CLOs):

Students will be able to:
CLO 1: Demonstrate knowledge of global shipping operations, utilizing maritime databases to analyze market trends.
CLO 2: Evaluate financial structures in ship and port finance, identifying key stakeholders, financing sources, and investment challenges.
CLO 3: Perform financial analyses to assess project feasibility within the maritime sector, using cash flow projections and appraisal methods.
CLO 4: Develop risk management strategies to address revenue and cost risks in maritime finance, employing hedging and financial modeling.

CLO 5: Analyze port investment strategies, covering public-private partnerships, pricing models, and regulatory compliance for sustainable planning.

13. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓							✓		
CLO 2		✓							✓	
CLO 3			✓							
CLO 4				✓			✓			
CLO 5					✓	✓				✓

PART B

15. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	CLOs
1	**Introduction to vessel ownership and Shipping investment:** Overview of shipping demand, shipping cycle, types of vessels; introduction to shipping markets (freight, second-hand, new building,	• Lecture • Presentations	• Class Performance	CLO 1

	scrap); principal players (ship owners & charterers); capital costs in ship owning, chartering, types of charters, freight, day rate income, forms of ownership.			
2-3	**Revenue and Expense Management in Port Operations:** Cargo handling fees, terminal charges, port revenue sources; financial statement analysis (income statements, balance sheets, cash flows).	• Lecture • Problem Solving • Case analysis	• Class Performance • Quiz-1	**CLO 4**
4	**Buying and Financing a Ship:** Content: Characteristics and sources of ship investment; types of financing (equity, debt, syndication, mezzanine, K/G system, leasing).	• Lecture • Case analysis • Presentations	• Class Performance	**CLO 2**
5	**Buying & Selling Second-Hand Vessels:** Reasons for buying/selling second-hand ships, price determination, ship purchase agreements, main provisions, legal considerations, inspections, surveys, due diligence.	• Lecture • Experiential exercises • Problem Solving	• Class Performance • Quiz-2	**CLO 1**
6	**Cash Flow Analysis and Project Evaluation** Cash flow components and projections; time value of money (discounting, compounding); project appraisal criteria and investment decisions (NPV, IRR, payback) with examples.	• Lecture • Case solving • Brain Storming Session	• Class Performance • Presentation - 1	**CLO 3**

8	**Capital Budgeting and Project Financing in Maritime Infrastructure** Capital budgeting for port expansion and ship purchases; project financing models (public, private funding sources).	• Lecture • Case analysis • Brain Storming Session	• Class Performance	**CLO 2**
9	**Shipping Risk Management I**: Characteristics of shipping investment risk; revenue risk factors, Forward Freight Agreements (FFAs), options, and hedging.	• Lecture • Brain Storming Session • Problem Solving	• Class Performance	**CLO 4**
10	**Shipping Risk Management II:** Managing costs: Bunker risk management and derivatives; interest rate and currency risk management.	• Lecture • Brain Storming Session • Problem Solving	• Class Performance • Quiz-3	**CLO 4**
11	**Port Investment and Pricing Strategies:** Overview of port assets and investment models (government, private, PPP); port pricing strategies (tariffs for bulk, containerized, specialized cargo); allocating variable and fixed costs.	• Group work • Brainstorming	• Report • Presentation	**CLO 5**
12	**Taxation and Regulatory Compliance in Shipping:** International tax structures impacting shipping companies; compliance with local and international taxation (e.g., tonnage tax).	• Lecture	• Quiz	**CLO 5**

13	**Investment Analysis and Insurance in Maritime:** Investment analysis (ROI, risk management); overview of marine insurance, risk assessment, premium calculations, insurance accounting.	• Lecture • Brain Storming Session • Problem Solving	• CT	**CLO 3**
14	**Terminal Concessions and Phases:** Phases of terminal concession (pre-bidding, pre-qualification, selection, post-bidding); financial and operational implications in each phase.	• Lecture • Brain Storming Session • Problem Solving	• Quiz	**CLO 5**
15	**Case Studies and Factors Leading to Failure in Maritime Industries:** Examining failure factors in maritime industries through case studies (Marine, Atlas Shipping, Eastwind Maritime, Hanjin, Western Marine); lessons learned, strategies for mitigation.	• Lecture • Brain Storming Session • Problem Solving	• Case solving	**CLO 5**

PART C

16. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test

Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

17. Learning Materials

	Text:
a.	Shipping Finance by James Kidwell,
b.	Ship Sale & Purchase by Alan R W Marsh,
c.	The International Handbook of Shipping Finance: Theory and Practice by Manolis G. Kavussanos

TANKER CHARTERING & OPERATIONS

PART A

1. Course Code: MPSM 5303
2. Course Title: Tanker Chartering and Operations
3. Course Type: Core
4. Year/Semester: 2nd Year, 1st Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite: None
8. Credit value: 2.0
9. Contact Hours: 28
10. Total Marks: 100

11. Rationale of the Course:

Thisp course is designed to equip the students with the thorough knowledge and abilities needed to manage tanker operations in the maritime sector. Professionals working in port and shipping management must comprehend the complexities of tanker chartering because it has a direct impact on the effectiveness, profitability, and safety of marine transportation. Through an exploration of the historical development, geographical factors, market dynamics, and operational aspects of tanker trading, this course provides students with the knowledge and skills necessary to effectively negotiate the challenges associated with tanker chartering and optimize cargo transportation.

12. Course Objectives:

The "Tanker Chartering" course aims to help students get a comprehensive understanding of the concepts, techniques, and procedures related to chartering tankers for liquid cargo transportation. Students will acquire the ability to analyze market trends, negotiate charter agreements, estimate

voyages and laytime, and manage the financial elements of tanker chartering through academic knowledge, practical case studies, and hands-on activities.

13. Course Learning Outcomes (CLOs): Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLO 1: Understand tanker trade history and geography.
CLO 2: Assess the tanker chartering market's structure and behaviour.
CLO 3: Assess tanker voyage feasibility and profitability using voyage estimation.
CLO 4: Understand and negotiate tanker voyage and time charter parties and apply best practices
CLO 5: Tanker laytime estimations.
CLO 6: Assess tanker chartering financials, including freight prices, costs, and revenue management.
CLO 7: Determine the roles and functions of regulatory authorities, industry associations, and stakeholders in the tanker sector.

CLOs	**PLO 1: Maritime Logistics Knowledge**	**PLO 2: Shipping Operations & Management**	**PLO 3: Business Problem Analysis**	**PLO 4: Critical Decision Making**	**PLO 5: Logistics and the society**	**PLO 6: Digitalization & Sustainability**	**PLO 7: Ethics and Morality**	**PLO 8: Individual work and teamwork**	**PLO 9: Adaptability to Change**	**PLO 10: Legal Knowledge of Maritime Affairs**
CLO 1	✓									
CLO 2	✓	✓								
CLO 3			✓	✓						
CLO 4		✓	✓	✓						
CLO 5			✓	✓						

CLO 6	✓									
CLO 7					✓					

PART B

16. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	Corresponding (CLOs)
1	History and development of tanker trade • Brief history of tanker trades • Tankers • Measurements, tonnages, types, • Cargoes and equipment • Crude oil • Pumps and pipeline systems • Valves • Other tanker types	Class Lecture	Class Test (Quiz)	**CLO 1**
2,3	Geography of tanker chartering • Crude oil • Trades • Major loading and discharging areas	Class Lecture, Group Discussion	Class Test (Quiz)	**CLO 1**
4,5	The market structure • Introduction • Origin and use of World scale • Average freight rate assessment • Factors influencing freight markets • Oil demand • Newbuilding activity • Tanker scrapping	Class Lecture	Midterm	**CLO 2**
6.7	Voyage estimating • Introduction • Route • Port time	Class Lecture, Case Study	Assignment	**CLO 3**

	• Bunkers • Port disbursements • Insurance and crew expenses • A lump sum rate (ls) • Time charter			
8.9	Chartering market practice • Introduction • Cargo description • Worldscale hours, terms and conditions (which) and special rates to apply • Production of the charter party • Demurrage • Contract of affreightment • Tenders	Class Lecture	Assignment	**CLO 4**
10	Tanker voyage charter parties • Introduction • ASBATANKVOY protective clauses • Drafting additional clauses • The Contract of Affreightment • Consecutive voyage charters	Class Lecture	Class Test (Quiz)	**CLO 4**
11	Tanker time charters • Introduction • Specific clauses • The law and disputes • Additional clauses for time charter party	Class Lecture	Class Test (Quiz)	**CLO 4**
12	Tanker laytime calculations • Introduction • Statement of Fact • Notice of Readiness • Dispatch and Demurrage • Calculation of Laytime	Class Lecture, Case Study	Assignment	**CLO 5**
13	Financial elements of tanker chartering • Freight • Demurrage • Commissions • Methods of freight payment	Class Lecture	Class Test (Quiz)	**CLO 6**

	• Arbitration • Warranty of Authority • Bills of lading • Freight futures for tankers			
14	Organizations in the tanker industry ASSOCIATION OF AVERAGE ADJUSTERS (AAA), ACOPS, BIMCO, FONASBA), INSTITUTE OF CHARTERED SHIPBROKERS, EUROPEAN COMMUNITY ASSOCIATION OF SHIP BROKERS AND AGENTS (ECASBA), INTERNATIONAL MARITIME INDUSTRIES FORUM (IMIF). INTERNATIONAL MARITIME ORGANIZATION (IMO), CHEMICAL DISTRIBUTION INSTITUTE, INTERNATIONAL ASSOCIATION OF INDEPENDENT TANKER OWNERS (INTERTANKO), INTERNATIONAL TRANSPORT WORKERS' FEDERATION (ITF), THE INTERNATIONAL TANKER OWNERS POLLUTION FEDERATION (ITOPF), OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF), THE SOCIETY OF INTERNATIONAL GAS TANKER AND TERMINAL OPERATORS (SIGTTO), OIL SPILL RESPONSE (OSRL), OTHER ORGANISATIONS	Class Lecture	Class Test (Quiz)	**CLO 7**

Part C

17. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy

CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination
CLO 6	Lecture, presentation	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 7	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

ASSESSMENT PATTERN

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	**Attendance (05)**	**Class Test/Quiz (10)**	**Assignment/Term Paper (05)**	**Class Participation (05)**	**Mid Exam (15)**
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

16. Learning Materials

1) Recommended Readings:
• Tanker Chartering & Operations by LLOYD'S MARITIME INSTITUTE
2) Supplementary Readings:

• ICS Tanker Chartering, 3rd Edition 2016
• INTERTANKO Worldscale - A Tanker Chartering Tool
3) Others:
• Tanker Operations by Julian Harrison, Leif Kaare Eriksson, Alexander Arnfinn Olsen

MARINE INSURANCE AND CLAIMS

PART A

1. Course Code: MPSM 5305
2. Course Title: Marine Insurance and Claims
3. Course Type: Core
4. Year/Semester: 3rd semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite: N/A
8. Credit value: 3
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course:

In the maritime industry, the topic of marine insurance and procedures is essential for reducing risks associated with sea transportation. It includes a variety of policies, legal frameworks, risk assessment methods, underwriting processes, and claims management strategies. Students obtain knowledge to negotiate the complexity of maritime insurance, increasing the robustness and effectiveness of the sector. Knowing the procedures used in marine insurance provides useful job skills and supports sustainable maritime operations.

12. Course Objectives:

This course familiarizes the students with principles and coverages under marine cargo and hull policies. It explains the considerations of rating and underwriting along with claims procedures to be followed. It also helps to develop an understanding of the general average and its adjustments from insurance perspectives and informs about the procedural aspects of recoveries from various third parties and measures for the prevention of maritime fraud.

11. Course Learning Objectives (CLOs):

Students will be able to:
CLO 1: Be able to understand the main legal and financial aspects of marine insurance
CLO 2: Be able to know about the calculation of insurance claim
CLO 3: Be able to analyze different marine accidents and cases

12. Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

CLO	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10
CLO 1	✓									
CLO 2	✓				✓					
CLO 3			✓		✓					

PART B

13. Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.

Week	Topic	Teaching-learning	Assessment Strategy	Corresponding CLOs

		Strategy		
Content 1	Introduction to Marine Insurance			
Week 1& 2	Evolution and need for Marine Insurance, History, Functions, nature and types of Marine Insurance, Marine Insurance Market, Marine Insurance Act 1906 and previous, Consumer Insurance (Disclosure and Representations), Marine Insurance Policy, Disclosure and non-disclosure, Express and implied terms, Physical and moral hazards, Representations and warranties, Exceptions, Insurable Interest, Duty of Fair Presentation, Ship owner's liability, Roles within marine insurance (broker; underwriter; adjuster; etc), Underwriting process, Contracting insurance, Disputes.	Lecture, Presentation, Effective Class Discussions	-	CLO 1
Content 2	**Cargo Insurance**			
Week 3 & 4	History and definition, Law and jurisdiction, Proposal Form, factors for acceptance, type of vessel, the Voyage or Transit, Type of Cargo, Packing forms, Containerization, Conditions of Insurance, INCOTERMS, Warranties, Declaration Forms, Conditions, Exclusions,	Lecture, Presentation, Team Work	Class test	CLO 1 & 3

	Causation, Indemnity principle, Risks, Perils, Insurance duration, Claims and losses, Recoverable expenses, Subrogation and double insurance, International sales contracts, Institute Trade Clauses, Institute Cargo Clauses (A, B, and C - 1983 and 2009 versions) Marine Cover Note, Policy Form, endorsements, Container Transport.			
Content 3	Hull & Machinery Insurance			
Week 5 & 6	Types of hull policy, Hull underwriting, Time and voyage policies, Institute Time Clauses (Hulls), Hull proposal form – details of the vessel –trade details –documents – Valuation of the ship – Classification of vessels – Rating factors – Hull initial rating – Renewal rating – Risks with adverse underwriting features – Warranties – Insurance of Fishing vessels – conditions of Insurance – insurance of sailing vessels – Insurance of Inland Vessels – Damage Cargo – Salvage Loss – Insurance of dredgers, Institute voyage clauses, Partial and total	Lecture, Presentation, Effective Class Discussions	Mid-term	CLO 1 & 3

	losses, Collision liability, Risks covered, General average, Particular average, Salvage, Sue and labour, Loss of hire, Claims			
Content 4	Additional Marine Insurance Coverage			
Week 7	New building risk, Cover for piracy, War and strikes clauses, Freight insurance, Yacht insurance, Increased Value (IV), Mortgagees' Interest insurance, Builders' risk insurance, and Overdue insurance.	Presentation, Team-Based Learning	assignment	CLO 1 & 3
Content 5	Protection & Indemnity (P&I) Insurance			
Week 8 & 9	Mutual insurance associations, History of P&I Clubs, Rationale behind mutual insurance, Role of P&I Clubs, Constitution of a Club, Management of a Club, Legal status of the Rule Book, Specialist Clubs and special covers, P&I Clubs in practice, Third party liabilities including death and personal injury claims and pollution damage. Protection in respect of the ship owner's liabilities arising out of the ownership of the ship, Indemnity liabilities incurred in respect of risks related directly to the	Effective Class Discussions, Team-based Learning	Class test	CLO 1 & 3

	operation of the ship.			
Content 6	Reinsurance			
Week 10	Nature and purpose of reinsurance, Privity of contract, Reinsurance in practice, Types of reinsurance, Different categories of contracts, Methods of transaction, Relationships between primary and reinsurance contracts, Relationship between assured/reassured/ reinsurer, Risk-retention groups	Presentation, Team-Based Learning	presentation	CLO 1
Content 7	Marine Claims			
Week 11 & 12	Actual Total Loss – Constructive Total Loss – Particular Average – Damage Cargo – Salvage Loss – General Average Loss – Sue and labour charge – Particular Charges – Salvage charges – Forwarding Charges – Extra Charges – Cargo Claims – Procedures – Intimation of Claim – Insurance Surveys – Claims Payable Abroad – Recoveries from third parties – Hull Insurance Claims –Total Loss – Partial loss – Particular Average – General Average – Salvage	Presentation, Lecture	quiz	CLO 2

	charges – Sue and labour Charges – Collision Liability – Claims of Ocean going vessels – fishing vessels –sailing vessels – inland vessels – General Average –Application of insurance to G.A Contribution and G.A Sacrifice- Adjustment of General Average – Salvage liability.			
Content 8	Marine Recoveries			
Week 13 & 14	Marine recoveries from third parties – Carriage of Goods by Sea Act– Shipowner's responsibility, liabilities/rights and immunities – Notice of loss or damage – Time limit for legal action – Carriage of goods by Rail – Rights /Liabilities of Railway Authorities Notice of Claim for Compensation – Carriage of goods by Road Act – Carriage by goods by Air– Multimodal transportation/responsibilities/liabilities/limits – Liabilities of Port Authorities – major and other ports – Postal Authority – Customs –Salvage Disposal.	Lecture, Presentation, Effective Class Discussions	-	CLO 1

PART C

14. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming

PART D

15. Learning Materials

a. Marine Insurance: An Essential Guide to Liability, Insurance, Law, the Market and Claims in the Maritime Industry by Sam Ignarski
b. Marine Cargo Insurance (Lloyd's Shipping Law Library) by John Dunt
c. The Function of Protection & Indemnity Marine Insurance about Ship Owner´S Liability for Cargo Claims: Framing the Legal Context by Joseph Tshilomb JK and . Llm
d. Marine Insurance: Cargo Practice v. 2 by Robert H. Brown
e. Marine Insurance Law and Practice by Francis Rose

Marine Environment Management and Sustainability

PART A

1. Course Code: MPSM 5307
2. Course Title: Marine Environment Management and Sustainability
3. Course Type: Allied
4. Year/Semester: 3rd Semester
5. Academic Session:
6. Course Teacher/Instructor: To be nominated
7. Prerequisite (if any): None
8. Credit value: 03
9. Contact Hours: 42
10. Total Marks: 100

11. Rationale of the Course

This course provides an in-depth exploration of the concepts, principles, and practices related to marine environment management and sustainability within the context of port and shipping management. It aims to equip students with the knowledge and skills necessary to understand, assess, and mitigate the environmental impacts of port and shipping activities while promoting sustainable practices and compliance with relevant regulations.

12. Course Objectives:

I.	To introduce students to the key concepts and principles of marine environment management and sustainability.
II.	To explore the environmental challenges associated with port and shipping operations.
III.	To examine regulatory frameworks and international conventions related to marine environmental protection.
IV.	To analyze the environmental impacts of port infrastructure development and shipping activities.
V.	To evaluate strategies and best practices for minimizing environmental impacts and promoting sustainability in port and shipping management.

13. Course Learning Outcomes (CLOs): Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

By the end of this course, students will be able to:
CLO 1: Define and explain the key concepts and principles related to marine environment management and sustainability.
CLO 2: Identify and categorize the various environmental challenges associated with port and shipping operations.
CLO 3: Evaluate the compliance of ports and shipping companies with relevant regulatory frameworks and international conventions about marine environmental protection.
CLO 4: Analyze and assess the environmental impacts of port infrastructure development and shipping activities using appropriate tools and methodologies.
CLO 5: Propose effective strategies and recommend best practices for minimizing environmental impacts and promoting sustainability in port and shipping management.

CLOs	**PLO 1: Maritime Logistics Knowledge**	**PLO 2: Shipping Operations & Management**	**PLO 3: Business Problem Analysis**	**PLO 4: Critical Decision Making**	**PLO 5: Logistics and the society**	**PLO 6: Digitalization & Sustainability**	**PLO 7: Ethics and Morality**	**PLO 8: Individual work and teamwork**	**PLO 9: Adaptability to Change**	**PLO 10: Legal Knowledge of Maritime Affairs**
CLO 1						✓				✓
CLO 2		✓								
CLO 3										✓
CLO 4										✓
CLO 5										✓

PART B

14. **Course plan specifying content, CLOs, co-curricular activities (if any), teaching-learning and assessment strategy mapped with CLOs.**

Week	Topic	Teaching-Learning Strategy	Assessment Strategy	Corresponding (CLOs)
1 & 2	**Introduction to Marine Environment Management and Sustainability:** • Definition of key terms and concepts • Importance of marine environment management in port and shipping operations • Principles of sustainability in the maritime sector	Presentation Lecture		CLO 1
3 & 4	**Environmental Challenges in Shipping Operations:** Sources and effects: • Discharges and spills of Oil /chemical • Hazardous and Noxious Substances (HNS) • Sewage and garbage • Atmospheric discharges: NOx, SOx, and greenhouse gas emissions • Ballast water management: exchange, dumping, treatment • Anti-fouling paint: the issue with Tributyltin (TBT)	Lecture, Effective class discussion	Group work	CLO 2
5 & 6	**Environmental Challenges of Port Operations:** • The nature of ports and port operations • Contaminated sediments and dredging • Waste and port reception facilities	Lecture, Effective class discussion	Group Presentation	CLO 2
7, 8, 9 & 10	**Legal and Regulatory Frameworks of Maritime Environmental Management:**	Lecture, Presentation		CLO 3

	• Role of International Organizations (UNCLOS, IMO, UNEP) • Conventions: - MARPOL Annex 1 to VI – Including latest changes & amendments - Case Studies of Recent Trends in MARPOL Violations - International Convention on the Control of Harmful Anti-fouling Systems on Ships 2001 - International Convention for the Control and Management of Ships' Ballast Water and Sediments 2004 - Compliance requirements for ports and shipping companies			
11, 12 & 13	**Environmental Impact Assessment:** • Purpose and process of EIA • Identification and assessment of potential environmental impacts • Mitigation measures and monitoring plans • Environmental management systems (EMS)	Lecture, Effective class discussion-based learning	Case Analysis	CLO 4
14	**Sustainable Practices in Port and Shipping Management** • Green port initiatives: energy efficiency, waste management, and emission reduction • Eco-friendly vessel design and operation • Sustainable transportation and logistics solutions	Lecture, Presentation		CLO 5

Part C

15. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Term, Case Solving, Final Examination
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Written Examination, Quiz test, Assignment, Final Examination
CLO 3	Lecture, Effective Class Discussions, Presentations, Group Work	Final Examination, Presentation, Team Work, Case Solving, Brain Storming
CLO 4	Lecture, Effective Class Discussions, Presentations, Group Work	Quiz test, Assignment, Presentation, Mid Term, Final Examination
CLO 5	Lecture, Effective Class Discussions, Presentations, Group Work	Assignments, Class Test, Presentation, Written Examination, Final Examination

Continuous Assessment – Breakup [40 marks]

Bloom's Criteria	Attendance (05)	Class Test/Quiz (10)	Assignment/Term Paper (05)	Class Participation (05)	Mid Exam (15)
Remember	05				
Understand		03	02	03	05
Apply		03			05
Analyze		02	03		05
Evaluate		02			
Create				02	

Semester End Exam (SEE) – 60 marks

Bloom Criteria	Score for the Test
Remember	07
Understand	08
Apply	15
Analyze	15
Evaluate	07
Create	08

Marks Distribution:

Grades will be calculated as per the university grading structure and individual student will be evaluated based on the following criteria with respective weights:

Class attendance	05%
Class Participation/Observation	05%
Assignment/Term paper	05%
Quizzes/Class Test	10%
Mid-term Examination	15%
Final Examination	60%
Total	100%

PART D

16. Learning Materials

1) Recommended Readings:	
I.	"Introduction to Environmental Impact Assessment" by John Glasson, Riki Therivel, and Andrew Chadwick
II.	"Environmental Management for Sustainable Development" by Chris Barrow
III.	"Port Management and Operations" by Maria G. Burns
IV.	"Shipping Operations Management" by Ilian Mihov and Kostas Bimpikis

V. "Sustainable Logistics and Supply Chain Management" by David B. Grant and Alexander Trautrims
2) Supplementary Readings: "Sustainable Development in Practice: Case Studies for Engineers and Scientists" by Adisa Azapagic and Slobodan Perdana
3) Others: Journal Articles, case studies etc.

Thesis – Part III

PART A

1. Course: MPSM 5302
2. Course Title: Thesis-Part III
3. Course Type: Capstone
4. Year/Semester: 3rd semester
5. Academic Session:
6. Course Teacher/Instructor: Individual Supervisor and Co-supervisor (if any)
7. Prerequisite: Advanced Research Methodology
8. Credit value: 08
9. Total Marks: 100

10. Rationale of the Course:

The purpose of the thesis course is to allocate specific time for students to advance from collecting and analyzing data to integrating their results and finishing their thesis. Students enhance their knowledge of research procedures and showcase their capacity to scrutinize and evaluate data by emphasizing essential components such as methodology, results, discussions, recommendations, and conclusions. This methodical technique guarantees that students can create a thorough thesis that accurately represents their scholarly investigation and contributes to their academic discipline. Moreover, the course concludes with a thesis presentation, which enables students to exhibit their research results and successfully convey their findings to their peers and faculty members.

11. Course Objectives

The course objectives for the second semester are to apply research methods, evaluate data, integrate findings, formulate recommendations, establish conclusions, and prepare for the presentation of the thesis.

12. Course Learning Outcomes (CLOs): Course Learning Outcomes (CLOs) and Mapping of CLOs with Program Learning Outcomes (PLOs)

Students will be able to:
CLO 1: To present their expertise in refining the methodology, examining data gathered from the questionnaire, and interpreting the findings following the research objectives.
CLO 2: To engage in critical conversations, synthesizing findings with relevant literature and offering insightful interpretations and analyses.
CLO 3: To execute the research project successfully.

CLOs	PLO 1: Maritime Logistics Knowledge	PLO 2: Shipping Operations & Management	PLO 3: Business Problem Analysis	PLO 4: Critical Decision Making	PLO 5: Logistics and the society	PLO 6: Digitalization & Sustainability	PLO 7: Ethics and Morality	PLO 8: Individual work and teamwork	PLO 9: Adaptability to Change	PLO 10: Legal Knowledge of Maritime Affairs
CLO 1	✓							✓		
CLO 2				✓				✓		
CLO 3				✓				✓		

PART B

15. Assessment and Evaluation

Mapping Course Learning Outcomes (CLOs) with the Teaching-Learning & Assessment Strategy:

CLOs	Teaching-Learning Strategy	Assessment Strategy
CLO 1	Lecture, Effective Class Discussions, Presentations, Group Work	Data Collection and Report Submission
CLO 1	Lecture, Presentation, question and answer	Data Analysis and Presentation
CLO 2	Lecture, Effective Class Discussions, Presentations, Group Work	Findings Analysis and Preparation of Draft Report

CLO 3	Lecture on final report writing, referencing, ethics and morality	Final Report Submission and thesis defense

The assessment for this course will be divided into three parts: the thesis proposal, presentation, and oral exam. These components will be evaluated based on specific criteria to ensure a thorough and fair evaluation of the student's work. A committee of 4/5 board members will evaluate the final presentation. The marks distribution is as follows:

Content	Marks
Thesis Report	60%
Presentation	30%
Oral Exam	10%

PART D

16. Learning Materials

Book, journal papers, thesis, research papers including published documents related to the thesis topic.

Part D

18. Grading/ Evaluation

1) Grading Scale:

Letter grades and corresponding grade points will be awarded by the provisions (unified UGC grading system) shown below:

Grade	Grade points	Numerical Markings
A+	4.0	80% and above
A	3.75	75% to below 80%
A-	3.50	70% to below 75%
B+	3.25	65% to below 70%
B	3.00	60% to below 65%
B-	2.75	55% to below 60%
C+	2.50	50% to below 55%
C	2.25	45% to below 50%
D	2.00	40% to below 45%
F	0.00	below 40%
I	Incomplete	-
W	Withdrawn	-
X	Projects/Thesis continuation	-
E	Expelled	Due to exam offence

2) Grade Point Average:

Grade Point Average (GPA) is the weighted average of the grade points obtained for all the courses passed/ completed by a student. For example, if a student passes/completes 'n' courses in a semester having credits C_1, C_2……. Cn and his/her grade points in these courses are G_1, G_2,....., Gn respectively then,

$$GPA = \frac{\sum_{i=1}^{n} Ci \times Gi}{\sum_{i=1}^{n} Ci}$$

Suppose a student has completed nine courses in a semester and obtained the following grades-

Course	Credits Ci	Grade	Grade points Gi	$C_i \times Gi$
EEE 101	3.00	A-	3.50	10.500
EEE 102	1.50	A+	4.00	6.000
EEE 103	3.00	A	3.75	11.250
EEE 104	1.50	B+	3.25	4.875
Phy 111	3.00	B-	2.75	8.250
Phy 112	1.50	C+	2.50	3.750
Chem 111	3.00	D	2.00	6.000
Chem 112	1.50	C	2.25	3.375
Math 111	3.00	B	3.00	9.000
Total	21.00	--	--	63.000

GPA= 63.000/21.00 = 3.00

3) Cumulative Grade Point Average (CGPA)

The Cumulative Grade Point Average (CGPA) is the weighted average of the GPA obtained in all the semesters passed/ completed by a student. For example, if a student passes/completes 'n' semesters having total credits of TC_1, TC_2……. TCn and his/her GPA in these semesters are GPA_1, GPA_2,....., GPAn respectively then,

$$CGPA = \frac{\sum_{i=1}^{n} TCi \times GPAi}{\sum_{i=1}^{n} TCi}$$

Suppose a student has completed four semesters and obtained the following GPA-

Year	Semester	Credit Hours Earned TCi	GPA Earned GPAi	GPAi × TCi
1	1	21.00	3.737	78.330
1	2	20.50	3.93	80.565
2	1	19.75	3.96	78.210
2	2	20.25	4.00	81.000
Total		**81.50**		**318.105**

CGPA = 318.105/81.50 =3.90

Performance Evaluations:

Theoretical Courses: The performance of the theoretical courses shall be evaluated through continuous assessment and semester final examination. Forty percent (40%) of marks of a course shall be allotted for continuous assessment and remaining sixty percent (60%) shall be allotted to the Semester Final Examination. The continuous assessment shall include class attendance and participation, quizzes/class test, term paper/assignments/case study and midterm examinations. Distribution of marks is as follows:

a. Class Attendance: 05%
b. Observation/ Class Participation: 05%
c. Term Paper/Assignment/Case Study: 10%
d. Quizzes/Class Test: 05%
e. Mid Term Examination: 15%
f. Term/semester Final Examination: 60%

The number of quizzes/class tests of a theoretical course will be n+1, where n is the number of the credit hours of the course. Evaluation of performance of quizzes/class tests will be on the basis of best quizzes. The scheme of continuous assessment that a particular teacher wishes to follow for a course will be announced as course outline on the first day of the term. The performance of a student will be evaluated in terms of two indices, viz. Semester Grade Point Average (SGPA), and Cumulative Grade

Point Average (CGPA).

Dissertation/ Thesis:

i) The dissertation component of the program is systematically structured across three semesters, ensuring a progressive approach to research development. The total weightage for the dissertation is **12 credits**, distributed as follows:

Thesis Component	**Semester**	**Focus Areas**	**Credit Allocation**
Thesis-Part I	1st Semester	Proposal Development	1 Credit
Thesis-Part II	2nd Semester	Introduction, Literature Review, and Methodology (only questionnaire formulation)	3 Credits
Thesis-Part III	3rd Semester	Completion of remaining sections (Data Analysis, Discussion, Conclusion, and Recommendations)	8 Credits

ii) The dissertation will be evaluated out of **100 marks**, ensuring a comprehensive assessment of research quality.

iii) Each student will conduct their research under the guidance of an assigned **Supervisor**. If required, a **Co-Supervisor** may be appointed to provide additional expertise and support.

The marks distribution for thesis is as follows:

Content	Marks
Report	60%
Presentation	30%
Oral Exam	10%

Skill Development Courses: The performance of the field trip/study tour of each student will be evaluated as follows:

Content	Marks
Attendance	20%

Participation	20%
Visit Report	30%
Presentation	30%

4. Eligibility for Appearing Term Final Examination:

An examinee shall be eligible for appearing at the term final examination upon fulfilment of the following conditions:

I. The examinee should submit an application for appearing at the term final exam in the prescribed form to the Controller of Examinations through his/her department. The form should be available on the university website.

II. The examinee has paid the prescribed examination fees and all outstanding dues of the university.

III. The examinee has attended a minimum of 75% of classes held in an individual course.

IV. The examinee, who has attended from 60% to below 75% of classes, may be eligible to sit for the examination subject to the payment of non-collegiate fees fixed by BSMRMU.

5) Retake:

It is expected that students will obtain a degree by clearing the entire offered courses of specified credit hours as per the syllabus within an academic period of three years. In case of failure to do so by any student the following guiding policies shall be adopted:

a. A student obtaining an F grade in a course may be allowed to repeat the course with the prior approval of the Head of the Department on the recommendation of the course coordinator. Such approval shall be reported to the academic council.

b. A student shall not be allowed to continue the programme if he/she obtains a total of three or more F grades in any term/semester.

c. If at the end of the second or any subsequent semester, the cumulative GPA falls below 2.0 he/she shall not be allowed to continue in the programme.

6. Incomplete (I) courses:

Grade ‘I’ means incomplete work. ‘I’ may be awarded to student when a course of study continues or extended to two consecutive semesters or a particular grade is not available during publication of results. ‘I’ shall be converted to the actual grade obtained by the student when available during the semester or by the following semester. Otherwise ‘I’ shall be converted to an ‘F’ Grade.

7) Grade Improvement/Change

This provision of improvement of results is allowed to students as an opportunity to improve their grades in a particular course or the overall results. The provision for improvement of grades applies to those only who obtained a grade ‘B-’ or lower in any course during the course of studies or beyond. Such students may be allowed to improve their grades retaining their previous grade(s) in case he/she fails to improve.

- A student obtaining a grade lowers than ‘B’ in a course may sit for Improvement Examination.
- a student may be allowed to repeat a maximum of 10 (ten) theory courses of the program
- Improvement Examination will not be allowed for Lab/ Practical Courses.
- The highest achievable grade by a student in the Improvement Examination shall be up to ‘A+’.
- Improvement Examination will be for a student only once in a course.
- The re-take exam (improvement examination) in a course will be of 100 marks like a regular course.
- A student must appear at the Re-take Exam (Improvement) normally in the subsequent 2 (two) semesters and under no circumstances afterwards. In case, if the course is not offered in the subsequent two semesters written permission of the vice-chancellor will be mandatory.
- Grade Improvement Examinations will be held along with the semester final examinations.

8) Dropout

A student must maintain a minimum CGPA of 2.20 per semester to continue in their program. If the student fails to maintain a minimum CGPA of 2.20 for two consecutive sessions, they are compelled to withdraw from the program.

9) Course Waiver:

A student with relevant degrees from reputed universities may get maximum 16 credits waiver provided they fulfill the following conditions:

a) Obtained at least a 'B' grade or 1st class in a similar course in the earlier program
b) Minimum least 70% of the course contents are similar

All applications for course waiver will be reviewed by Equivalence Committee on a case-by-case basis and finally shall be approved by the Academic Council of BSMRMU

Reference

1(a). BAC 2021. Bangladesh Accreditation Council (BAC) Standards for Accreditation of Academic Program, BAC, Dhaka.
1(b). BAC 2021. Bangladesh National Qualifications Framework (BNQF) Part B: Higher Education.
2. UGC 2020. Template of Outcome Based Education (OBE) Curriculum (Revised).
3. BSMRMU 2013. BSMRMU Exam Regulation.

Attachment 01:

Foundation Course in Port and Shipping Management

Course Credit: Non-Credit
Contact Hours/Duration: 01 Month
Duration of the Class: Per Module 2 hrs.
Course Overview: This course provides a foundational understanding of the key elements in the port and shipping industry. It covers the essential concepts of port infrastructure, ship operations, regulatory frameworks, and the global shipping trade. Students will gain insights into the management and operational aspects of ports and ships and the international logistics, legal, and financial arrangements underpinning global trade.

Course Modules:

Module 1: Global Maritime Transport and Trade

- Overview of Maritime Transport: Key concepts and players
- Modes of Transport: Sea, air, rail, and road transport systems
- Geography of Maritime Transport: Key shipping routes and chokepoints
- Major Commodity Trades: Understanding global commodity flows
- Types of Shipping: Liner shipping, bulk carriers, tankers, and container vessels
- Containerization and Future Trends: Evolution of container shipping and technological advancements

Module 2: Port Functions and Operations

- Introduction to Ports: Importance and role in trade facilitation
- Types of Ports and Terminals: Container, bulk, oil, and specialized ports
- Port Infrastructure and Superstructure: Key facilities including berths, storage areas, and terminals
- Generations of Ports: From first to fifth-generation ports
- Port Functions: Cargo handling, storage, and distribution services
- Port Services and Stakeholders: Role of customs, freight forwarders, and terminal operators

Module 3: Regularity Framework of Shipping

- Maritime Law Overview: Key international conventions (SOLAS, MARPOL, UNCLOS, STCW, MLC)
- Port Regulations: National and international legal frameworks governing ports
- Carriage of Goods by Sea Act: Legal foundations in shipping

- Different Maritime Organizations: IMO, ITF, BIMCO, IACS, ICS
- National law and Ordinance:

  1. The Bangladesh Merchant Shipping Ordinance, 1983
  2. Inland Shipping Ordinance, 1976
  3. Bangladesh Flag Protection Ordinance, 1982
  4. Port Acts and Regulations
- Flag State and Port State Control: Ensuring compliance with international standards

Module 4: Ship Operations and Management

- Introduction to Shipping Operations: Key processes in global shipping
- Types of Vessels: Container ships, bulk carriers, tankers, specialized vessels and others
- Key Shipping Terms: DWT, GRT, NRT
- Ship Management: Roles and responsibilities of ship management companies (Technical, Commercial and Crewing management)
- Ship Broking and Chartering: Basics of shipping contracts and vessel hiring

Module 5: Major Ports in Bangladesh and Port Users

- Introduction of Ports in Bangladesh
- Background of Chittagong Port
- Current Scenarios of Chittagong Port
- Future Planning of Chittagong Port including Bay Terminal and Matarbari Port
- Stakeholders of Chittagong Port; Trade Unions and Other Organization
- Statutory Bodies (Customs, Immigration, Port Health, Quarantine etc.); dependencies
- Port users and intermediaries (Importers, Exporters, Shipowners, Operators, Agents, Freight Forwarders, Truckers, and Rail. & Barge Operators), Berth/Terminal Operators, C&F agents etc.

Module 6: Dry Ports and Inland Container Depots (ICDs)

- Concept of Dry Ports: Inland terminals and their role in reducing port congestion
- Operations of Off-Dock Facilities: Handling, storage, and delivery of containers

Module 7: International Terms of Payment

- Documentary Credit Systems: Letters of credit, LCAs, and bills of lading
- Methods of payment in international trade: advance payments, open accounts, etc.
- INCOTERMS: Responsibilities of buyers and sellers in international trade (Key terms like FOB, CIF, EXW, DDP, etc.)
- Methods of payment in international trade: advance payments, open accounts, etc.
- Liability Regimes in Shipping: Allocation of risk between shippers and consignees

- Insurance in Maritime Trade: Types of insurance coverage for international shipments

Module 8: Safety and Security in Ports and Shipping

- Maritime Security Framework: Compliance with ISPS code
- Risk Management in Port Operations: Identifying and mitigating risks
- Port Safety Measures: Ensuring safe cargo handling and operations
- Emergency Preparedness: Disaster management and response plans

Module 9: Cargo Operations and Management

- Conventional Cargo Operations: Handling non-containerized cargo
- Outer Anchorage Discharging: Efficient cargo handling at outer anchorage
- STS (Ship-to-Ship Transfer)
- Jetty Side Operations: Role of berth operators in port productivity

Module 10: Assessment and Evaluation

- A 1-hour multiple-choice (MCQ) examination will be conducted.
- A minimum score of 40% is required to pass the examination