



**Curriculum
of
Master in Maritime Development & Strategic Studies**

**Department of Maritime Security and Strategic Studies
Faculty of Maritime Governance & Policy
Bangabandhu Sheikh Mujibur Rahman Maritime University, Bangladesh**

Table of Contents

1. Introduction to the University
2. Introduction to the Faculty
3. Introduction to the Department
4. Introduction to the Program
5. Vision of the Program
6. Mission of the Program
7. Program Outcome
8. Learning Outcome
9. Generic Skills
10. Curriculum Structure
11. Course Schedule
12. Teaching Strategy
13. Assessment Strategy
14. Course Profile
- 14.1 **Fundamental Courses**
 - 14.1.1 ENG 511: Communicative English
 - 14.1.2 MDSS 515: Maritime Economics
 - 14.1.3 MDSS 525: Research Methodology
- 14.2 **Core Courses**
 - 14.2.1 MDSS 511: International Law and Maritime convention
 - 14.2.2 MDSS 512: Geopolitics and Indian Ocean
 - 14.2.3 MDSS 513: Development Studies
 - 14.2.4 MDSS 514: Maritime governance and Resource Management I
 - 14.2.5 MDSS 521: Marine Environment & Disaster Management
 - 14.2.6 MDSS 522: Maritime Safety and Security
 - 14.2.7 MDSS 523: Maritime Domain Awareness
 - 14.2.8 MDSS 524: International Security Studies
 - 14.2.9 MDSS 531: Maritime Strategy: Theory and Practice
 - 14.2.10 MDSS 532: Maritime governance and Resource Management II
- 14.3 **Dissertation**
 - 14.4.1 MDSS 500: Dissertation
- 14.5 **Skill Development Courses**
 - 14.5.1 DEV 501: Study Tour/Field Trip -1
 - 14.5.2 DEV 502: Student Concluding Seminar -1
 - 14.5.3 DEV 503: Study Tour/Field Trip -2
 - 14.5.4 DEV 504: Student Concluding Seminar -2
 - 14.5.5 DEV 505: Study Tour/Field Trip -3
 - 14.5.6 DEV 506: Student Concluding Seminar -3

1. Introduction to the University

1.1 Introduction: The victory over maritime boundary delimitation with neighbouring countries opened a new window in the maritime arena of Bangladesh. Vast sea area along with scarcity in land based resources has made it imperative to boost up our economy through effective exploration of sea resources. Keeping this in perspectives honourable Prime Minister Sheikh Hasina outlined the concept of blue economy and underscored the importance of effective manpower in the maritime sector.

In order to create effective human resources, the first ever specialized university Bangabandhu Sheikh Mujibur Rahman Maritime University, Bangladesh (BSMRMU) was established in 2013 after the name of the Father of the nation Sheikh Mujibur Rahman. Our motto is “We strive for Maritime Excellence”. The University aims at bringing all maritime professional to a common platform to share knowledge and carryout research for the advancement of maritime sector and developing effective human resources in this sector.

1.2 Mission: Bangabandhu Sheikh Mujibur Rahman Maritime University, Bangladesh is committed to provide quality education based on state of the art technological support responsive to the emerging challenges at home and abroad.

The university is dedicated to nurture and develop world class professionals, who would serve the mankind with strong sense of ethical values and competence and ready to face the competitive world of maritime business, service and employment.

1.3 Vision: Our vision 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 by 2021.

1.4 Goals:

- Achieve sustainable development and progress of the university through mutual cooperation with other related universities/ institutions.
- Continue to upgrade educational services and facilities responsive to the demands and requirements of the nation.
- Bring all types of marine professionals on a common platform to share knowledge and perform research and development works for the advancement of country's maritime sector.
- Enhance research consciousness in the maritime sector in discovering new dimensions with the upcoming challenges.
- Accelerate the participation of alumni students and professionals with educational programs and development of projects designed to expand and improve academic standards.
- Teach students on marine science and technology and guide them towards research to enhance contribution to the maritime profession.
- Conduct various educational programmes and research works for sustainable development of the maritime service and industrial sector of the country.

- Educate students on different subjects of maritime management, law and security and strategy and conduct research on allied fields.
- Create conducive environment for students to prepare themselves to serve the nation as future planners/ policy makers/ leaders in maritime sectors in coordination with national and international organizations including International Maritime Organization (IMO).

1.5 Faculties and Institutes: The University aspires to have seven teaching faculties and four research institutes. The faculties are:

- Faculty of Maritime Governance and Policy (FMGP)
- Faculty of Shipping Administration (FSA)
- Faculty of Earth and Ocean Science (FEOS)
- Faculty of Engineering and Technology (FET)
- Faculty of General Studies (FGS)
- Faculty of Computer Science & Informatics (FCSI)
- Faculty of Maritime Business Studies (FMBS)

Research institutes are: Institute of Professional Language, Institute of Bay of Bengal & Bangladesh Studies, Institute of Renewable Energy & Marine Resource and Institute of Disaster management.

2. Introduction to the Faculty of Maritime Governance and Policy:

Faculty of Maritime Governance & Policy is one of the pioneer faculties of the university. The faculty has special learning environment, innovative course curriculum, methods of teaching, and quality programs. The faculty has three departments namely Department of Maritime Law and Policy, Department of Maritime Security and Strategic Studies and Department of Maritime Safety Administration.

3. Introduction to the Department of Maritime Security and Strategic Studies

The Department is started its journey University under the Faculty of Maritime Governance and Policy. The Department is committed to provide an excellent teaching and learning environment. Global standard curriculums are followed to impart quality education by the qualified and competent teachers. Graduates of this department will get a unique opportunity to develop their career in the different areas of job market like Commercial shipping company, national and international maritime organization, sea port, Security organization, University Teaching etc.

4. Introduction to the Program

4.1 General: Maritime Development and Strategic Studies is a specialized post graduate course offered under the Department of Maritime Security and Strategic Studies. The duration of the program is 18 months (3 semesters). The program is designed with 13 theoretical courses, 6 development courses and a Dissertation/thesis. Total credit for the program is 57. The Program is designed to develop the students with an expertise in the field of Maritime Strategy and Maritime Security by imparting theory cum practically focused education of global standard. After successful completion of this Program, a student will be professionally competent to choose his career in a commercial shipping company, national and international maritime organization, seaport and Security organization.

4.2 Division of Semester: The duration of each semester is 26 weeks. Distribution is as follows:

- | | | |
|----|------------------------|----------|
| a. | Classes | 15 weeks |
| b. | Mid Term Examinations | 02 week |
| c. | Preparatory Leave | 02 weeks |
| d. | Term Final Examination | 03 weeks |
| e. | Recess | 04 weeks |

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

- a. A Bachelor degree or its equivalent in any field including Maritime Science, Law, Business, Engineering and Agriculture.
- b. Applicant with general education must have at least second division or CGPA 2.50 in all public examination.
- c. Applicants with GCE must have passed at least five subjects in O level (including mathematics) and at least two subjects in A level. However, applicant having more than two 'D' grades in O level and/or more than one 'D' grades in A level shall not be eligible for admission.
- d. Applicants having at least two years job experience shall be given preference.
- e. Foreign applicants shall apply through their respective embassy

4.4 Admission Test: All eligible applicants shall be required to appear the admission test as per BSMRMU Admission Policy/regulations for Maritime Security and Development studies Program. Admission test shall normally be comprised of written test and viva voce. Only written test qualified applicant shall be called for viva voce.

4.5 Final Selection and Registration: The final selection for admission shall be based on Admission Test result. Selected candidates shall be registered with the programme in accordance with the procedures as laid down by BSMRMU.

4.6 Degree Requirement: Degree requirements are as follows:

- a. Passing of all courses with minimum Cumulative Grade Point Average (CGPA) of 2.50 (C+) in 4.00 point grading scale at the end of the program.
- b. Completion of Dissertation with a minimum grade of 2.50 (C+).

4.7 Credit Earned: The Courses in which a student has obtained 'D' or a higher Grade will be counted as credits earned by him/her. Any course in which a student has obtained 'F' grade will not be counted towards his/her earned credits.

4.8 Grading System: Letter grades and corresponding grade points will be awarded in accordance with 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

4.9 Eligibility for Appearing Term Final Examination: An examinee shall be eligible for appearing at the term final examination upon fulfilment of the following conditions:

- a. The examinee submitted an application for appearing at the term final exam in the prescribed form (hard copy/Online) to the Controller of Examinations through his/her department/institutes.
- b. The examinee has paid the prescribed examination fees and all outstanding dues (including dues of hall/mess for resident students) of the university.
- c. The examinee has attended minimum 75% of classes held in an individual course.
- d. 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.

4.10 Course Waiver: A student with relevant degrees from reputed universities may get maximum 16 credits waiver provided they fulfil 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.

4.11 Retaking a Course: It is expected that students will obtain degree by clearing the entire offered courses of specified credit hours as per the syllabus within 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 F grade in a course may be allowed to repeat the course with the prior approval of Head of the Department on the recommendation of the course coordinator. Such approval shall be reported to the BPGSR and 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.

d. Two courses may be repeated for improvement with the prior approval of the Head of the Department on the recommendation of the course coordinator. Such approval shall be reported to the BPGSR and academic council.

5. Vision of the Program:

Developing world-class postgraduate to penetrate the maritime industry.

6. Mission of the Program:

Supporting and structuring industry attractive curriculum and state of the art teaching.

7. Program Outcomes:

Program outcomes are as follows:

- An ability to apply the knowledge of maritime security and development issue in the field of maritime organization.
- An ability to formulate maritime problems and develop practical solutions.
- An ability to work effectively in teams and provide leadership.
- An ability to effectively communicate orally, graphically and in writing.
- An understanding of managerial, professional and ethical responsibility.

8. Learning Outcomes

After successful completion of the program,

- students will demonstrate knowledge and understanding of the core doctrines of maritime security development strategy;
- Students will demonstrate knowledge of the specific aspects of blue economy;
- Students will be able to apply cross-disciplinary knowledge to address complex sustainable development challenges;
- Students will be able to critically analyse development policies, strategies, plans.

9. Generic Skills:

The generic skills for the program are problem solving, critical thinking, creativity, study skills, communications etc.

10. Curriculum Structure

Maritime Development and Strategic studies Program consists of the following categories of courses:

Category	No. of Courses	Credits	Percentage
Fundamental Courses	3	9	16
Core Courses	10	30	53
Dissertation	1	12	21
Skill Development Courses	6	6	10
Total	21	57	100%

11. Course Schedule

First Semester		
Course Code and Title	Credits	Contact Hours
ENG 511: Communicative English	3	42
MDSS 511: International Law and Maritime convention	3	42
MDSS 512: Geopolitics and Indian Ocean	3	42
MDSS 513: Development Studies	3	42
MDSS 514: Maritime governance and Resource Management I	3	42
MDSS 515: Maritime Economics	3	42
DEV 501: Study Tour/Field Trip-1	1	3-4 days
DEV 502: Student Concluding Seminar-1	1	2-3 days
Sub Total	20	
Second Semester		
Course Code and Title	Credits	Contact Hours
MDSS 521: Marine Environment & Disaster Management	3	42
MDSS 522: Maritime Safety and Security	3	42
MDSS 523: Maritime Domain Awareness	3	42
MDSS 524: International Security Studies	3	42
MDSS 525: Research Methodology	3	42
DEV 503: Study Tour/Field Trip-2	1	3-4 days
DEV 504: Student Concluding Seminar-2	1	2-3 days
Sub Total	17	
Third Semester		
Course Code and Title	Credits	Contact Hours
MDSS 500: Dissertation	12	--
MDSS 531 Maritime Strategy: Theory and Practice	3	42
MDSS 532 Maritime governance and Resource Management II	3	42
DEV 505: Study Tour/Field Trip-3	1	3-4 days
DEV 506: Student Concluding Seminar-3	1	2-3 days
Sub Total	20	
Grand Total	57	

12. Teaching Strategy:

The teaching strategy of the program is mainly lecture based. Other teaching strategies include; case analysis, group discussion, workshop, seminar, and fieldwork learning etc.

13. Assessment Strategy:

13.1 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: 05%
- d. Quizzes/Class Test: 05%
- e. Mid Term Examination: 20%
- f. Term/semester Final Examination: 60%

13.2 Dissertation/Thesis: The marks distribution for dissertation is as follows:

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

13.3 Skill Development Courses: Developing Course is comprised of two items. One is field trip/ study tour and the other one is student concluding seminar. 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%

The performance of the Student Concluding Seminar of each student will be evaluated as follows:

Content	Marks
Attendance	10%
Submission of Paper	30%
Presentation	40%
Handling Questionnaire	20 %

14. Course Profile

Course Code and Title	Credits	Contact hours
ENG 511: Communicative English	3	42

Aim: The aim of this course is to develop the ability of our students to communicate well in any maritime corporation or organization and also orient our students some basics of maritime English.

Learning Outcomes:

After the completion of the course the students will be able to:

- Develop their ability to use general maritime English up to the intermediate language level
- Prepare themselves for developing the Knowledge, Understanding & Proficiency in the English language required by the STCW Code
- Practise communicating in English for both maritime and general purposes at the elementary to intermediate language levels, and
- Use Standard Marine Communication Phrases (SMCP) in onboard communications

Contents: The teaching contents of maritime English syllabus consist of the following modules:

1. Speaking: Guided conversations (greetings, requesting, apologizing), Two minute impromptu talks, Preparing and presenting talks on a given theme, Interviews Informal debates and group discussion, Public Speaking, Oral presentation, Responding to audio/video clips.

2. Writing: Developing sentence structures to build language awareness and understanding sentence variation, Extending basic sentence construction with vocabulary, Use of complex sentence constructions with connectives, fragments and run-ons, Paraphrasing, Summarizing, Writing strategies: free-writing, brainstorming, mind mapping/clustering, narrowing the focus etc., Paragraph writing

3. Report Writing-Writing an Effective Report, Stages of Writing, Types of Reports, Divisions, Numbering and use of Visual Aids-Creativity in Written Communication, Use of Pictures, Diagrams in Written Communication.

4. Communication-Writing Letters, Business Letter Format/Types of Letters - Routine Business Letters, Sales Letters, Resume and Job Applications, e-Mail Messages, Proposals, Technical Articles, Telegrams, Telex Messages, Facsimiles, Electronic Mail, Handling a Mail, Maintaining a Diary, and Negotiation Skills.

5. Routine Correspondence-Circulars, Drafting Notices, Handling Complaints, Evaluating Interview Performance, Articles, Formal Invitations - Proforma for Performance Appraisals, Letters of Appointment, Captions for Advertising, Company Notice related Shares, dividends, MoA, AoA, Annual Reports, Minutes of Meetings, Action taken on Previous Resolution.

6. Maritime Terminology

Suggested Reading:

1. Scot Ober, Contemporary Business Communication, Biztantra.
2. Capt. F. Weeks. Language Training for Non-native Speaking Mariners// Maritime Education and

Training, The Nautical Institute, 1997.

3. Nageshwar Rao and Rajendra Das, Business skills.

4. Meenakshi Raman and Sangeeta Sharma, Technical Communication, Oxford. 5. Micheal Osborn and Suzanne Osborn, Public Speaking, Biztantra. 6. John Seely, Oxford Writing and Speaking, Oxford.

Course Code and Title	Credits	Contact hours
MDSS 511: International Law and Maritime Conventions	3	42

Aim:

The course is designed with a view to enabling the students to develop their knowledge and understanding of legislative drafting and law making procedure in Bangladesh in general and in particular transforming international maritime legislations into municipal law of Bangladesh to have a better implementation of international standard. It also aims to familiar the students with different modes of interpretation of maritime legislations and understanding the jurisdiction of the Admiralty court and its procedures under the legal framework of Bangladesh.

Learning Outcomes:

By the end of this course students should be able to:

- Understand the basic of international law.
- Get core concept on various international maritime conventions.
- Know the fundamentals of the law of the sea.
- Know the contingent nature of marine insurance and its subject matter to determine insurable interest under insurance contract.
- Understand the ship registration procedure, Maritime Liens and Privileges, carriage of goods by sea and so on.

Syllabus Contents:

1. Historical background, general introduction and elements of the law of the sea, principles of the law of the sea, baselines, internal waters, territorial sea, straits used for international navigation, archipelagic states, contiguous zone, continental shelf, exclusive economic zone, fisheries, land-locked and geographically disadvantaged states, the high seas, prohibition of transport of slaves, piracy, Illicit Traffic in Narcotic Drugs or Psychotropic Substances, Unauthorized Broadcasting, Right of Visit, Right of Hot Pursuit, Submarine Cables and Pipelines, regime of islands, enclosed and semi-enclosed seas, legal regime of the arctic, international seabed area, the International Seabed Authority, the System of Exploitation of Deep Seabed Resources, marine scientific research, development and transfer of marine technology, settlement of disputes, Implication of delimitation of maritime boundary with Myanmar and India.

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

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

4 The law of contract and other relevant legal principles, carriage of goods by sea and the relevant conventions including INCOTERMS and the recent developments.

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

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

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

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

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

Suggested Reading:

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

Course Code and Title	Credits	Contact hours
MDSS 512: Geopolitics and Indian Ocean	3	42

Aim:

The course is designed with a view to enabling the students of understanding of geopolitics as a mode of analysis and its historical development. The course also aims to illustrate a competence in research, writing an academic document, and public speaking that demonstrates knowledge and insight into selected aspects of the subject. The course aim also extends to demonstrate a capacity for problem-solving and applying concepts.

Learning Outcomes:

On successful completion of this subject the learner will be able to:

- Demonstrate an understanding of geopolitics as a mode of analysis and its historical development.
- Illustrate a competence in research, writing an academic document, and public speaking that demonstrates knowledge and insight into selected aspects of the subject.
- Demonstrate a capacity for problem-solving and applying concepts.

Syllabus Contents:

1. Introduction to Geopolitics
2. Classical Theory
3. Critical Geopolitics
4. Development of Geopolitics
5. Contemporary Power and the Domains
6. Geopolitics & Rising Powers in the South- East Asia
7. Key Geopolitical Regions
8. 21st Century Geopolitical Issues
9. Geopolitical importance of Indian Ocean
10. Geopolitical scenario of Bay of Bengal.
11. Influence of extra regional power in Indian Ocean
12. Concept of Indo Pacific
13. One Belt One Road Initiative (OBOR), Maritime Silk Road

Suggested Reading:

1. Tim Marshall, Prisoners of Geography
2. Robert D.K. Kaplan, The Revenge of Geography

Course Code and Title	Credits	Contact hours
MDSS 513 Development Studies	3	42

Aim:

The course is designed with a view to enabling the students to develop their knowledge and understanding of development issues in the context of globalization, economic transformation, and social-cultural and political changes. This course will make students capable of approaching and analyzing cross disciplinary knowledge to address complex sustainable development changes.

Learning Outcomes:

By the end of this course, the students will be able to:

- have a thorough understanding of key concepts and theories within the field of development studies and geography
- to identify and formulate relevant and feasible research objectives for a scientific study and develop an appropriate research design
- has obtained an advanced level of written and oral proficiency

Syllabus Contents:

1. The meaning of Development: definitions and interpretations of development, various dimensions, key aspects, Milestones in developmental thinking.
2. Introduction to development Studies: Origin, evolution (from development economics to development studies), nature, focus, utility, and trends; Development studies as a social science, the hybrid nature of this social science, and is there a common thread running through this social science?
3. Common Characteristics of developing nations: Defining the developing world, the structural similarity and diversity of developing countries.

4. Classical theories of development:
Development as Growth and the Linear-stages approach, Structural Change model, the International Dependence Revolution and the Neoclassical Counterrevolution with Market Fundamentalism .
5. Theories of growth:
Development as Growth and the Linear-stages approach, Structural Change model, the International Dependence Revolution and the Neoclassical Counterrevolution with Market Fundamentalism.
6. Contemporary Development Approaches: Modern critique of development theories, search for micro-solutions, recent innovations in development thinking.
7. Measuring Development: Development indicators including their criticism and compatibility; The Human Development Index and its relation with economic development
8. Foreign Aid: The debate: why donors give aid? Why developing countries accept aid? Does Bilateral and multilateral donor agencies, the growing role of NGOs in aid and development.
9. Private Philanthropy: Corporate Social Responsibility, Private Donation, Social Business, Charity, crowd-funding, etc.
10. Environment and Development: Nature, issues, arguments, problems and challenges.
11. Energy Security, SDG and Delta Plan, Vision 2021 and 2041
12. Blue economy and Maritime Development.

Suggested Reading:

1. Sen Amartya (1999), Development As Freedom. New Delhi: Oxford University Press. Sen, 2. Amartya (1990), On Ethics and Economics. New Delhi: Oxford University Press.
3. Thirwall, A.P. (1999), Growth and Development. New York: Macmillan. Todaro
4. M.P. Stephen, C.S. (2003), Economic Development. Singapore: Pearson Education 8th ed.
5. Simon, David (2006), Fifty Key Thinkers on Development. London and New York: Routledge.
6. Willis K. (2006), Theories and Practices of Development. London and New York. Routledge.

Course Code and Title	Credits	Contact hours
MDSS 514 Maritime governance and Resource Management I	3	42

Aim:

The aim is to gather basic knowledge of the marine resources including mammals, fish and birds and also Oil, Gas, Coal etc management.

Learning Outcomes:

Students will be able to:

- Demonstrate a good understanding of current issues in Marine resource management in the coastal and Sea areas.
- Show a basic knowledge of the natural history, biology, and ecology of coastal mammals, fish, and birds and also Non-living resources.
- Explain the complex relationships between local people with the environment particularly in terms of balancing human needs with natural resource management and conservation.

Syllabus Contents:

- 1. Fundamentals:** General Ocean science, Types of Ocean resources, Maritime zone wise resources.
- 2. Needs and Uses of the sea:** As a source of food – minerals and rare metals – oil and gas – chemicals – exotic, products natural wilderness, Coastal zone, Surf zone – Off shore – Estuaries – Wet lands and Lagoons –Living resources – Non living resources.
- 3. Introduction to Maritime Stakeholder:** Concept of Port; Port Model; Port Stakeholders: Port Union and Other Organization including ITF, Statutory Bodies(Customs, Immigration, port Health etc.), Port Users (Shipowners, Operators, Agents, Freight forwarders, Truckers, Rail and Barge Operators); Dry Ports and Port logistics system: Concept of Dry Ports, ICD/ Offdocks, Types and their role, Port Logistics and Information Systems, Port in the Supply Chain; Shipping Operation: Major commodities and their characteristics, Different Shipping service and their functions, Terminal layout; Ship Broking and Chartering: Types of Charter, Purchase and Registration of Vessel, Freight and Hire Calculation; Ports & Terminals: Organization structure in Ports – Interface of Rail & Road infrastructure – Factors affecting the future ports & terminals. Shipping Company Structure: Organization of a shipping company – Roles of Commercial, Technical & Crewing departments – In house vs outsourcing of Ship Management functions – Ship Registries, Maritime Institute, other Stakeholders.
- 4. Marine resource management:** Natural – industrial (including Gas , Oil, Coal, marine debris, synthetic or organic compounds, pesticides, mining. Marine mineral resources: Poly metallic nodules, Hydrothermal deposits (sulfides and metalliferous muds), phosphorites, carbonates, placers, gas hydrates - Magnetic, gravity and seismic methods of exploration-Principle, techniques and applications, scientific- economic and geo- political aspects of seabed exploration and mining-Seabed treaty.
- 5. Major management and Regulatory Agencies:** The role of the government in maintaining marine resources –marine parks and reserves– marine reserves of international importance – major and international treaties and regulations– the history of global marine resource management during the twentieth century.
- 6. Management of Living Resources:** Consequences of resource over-exploitation, IUU Fishing, renewable and non renewable resources in terms of immediate and future requirements. Fisheries resources, Mangrove Ecology, Ecology of Dolphins Seaweed Farming.
- 7. Maritime Technology;** Ocean renewable and alternative energy.

Suggested Reading:

1. Stanislav Patin 1996 Environmental Impact of the Offshore Oil and Gas Industry. Ecomonitor Pub.
2. Roonwal, G.D. (Ed.) 1986. The Indian Ocean exploited mineral and petroleum resources, Springer Verlag, Berlin.
3. Perspective on Integrated Coastal Zone Management by W. Salomons and R.K Turner.
4. Coastal Zone Management, David R. Green, University of Aberdeen
5. Dwivedi, S.N., Natarajan, R and Ramachandran, S., “Coastal Zone Management in Tamilnadu”

Course Code and Title	Credits	Contact Hours
MDSS 515: Maritime Economics	3	42

Aim:

The aim of the course is to provide an understanding of how the shipping market economic works. Students would be able to answer some basic questions about how the shipping market is organized, how it works, how the freight rate is determined, how the cycle works, how are ships financed and what influence the design as well as the economic principle behind these.

Learning Objects:

Students will be able to identify/discuss/describe/explain/analyze:

- Shipping and Shipping Market Economics
- Shipping Company Economics
- Seaborne Trade and Transport Systems
- The Merchant Fleet and Transport Supply
- Forecasting and Planning

Syllabus Contents:

1. The economic organization of the shipping market: Economic role of the shipping industry, demand for sea transport, world merchant fleet, supply of sea transport, role of ports in the transport system, Shipping cycles and shipping risk, Characteristics of shipping market cycles, The frequency of shipping cycles, Freight market cycles, 1869–1914, The return on investment in shipping, The prediction of shipping cycles.
2. Supply, demand and freight rates :The shipping market model , The demand for sea transport, The supply of sea transport , The freight rate mechanism .Costs, revenue and financial performance: Cash flow and the art of survival , The cost of running ships, The capital cost and financial performance , The revenue calculation , Computing the cash flow.
3. Financing ships and shipping companies: Ship finance and shipping economics, How ships have been financed in the past , The world financial system and types of finance, Financing ships with equity , Financing ships with debt , Finance for new buildings , Leasing ships.
4. The economic principles of maritime trade: study seaborne trade, The countries that trade by sea, An explanation of trade theory ,Theories about the pattern of trade, Economic growth and sea trade, Trade forecasting and the commodity trade model.
5. The global pattern of maritime trade: Introduction, The Westline theory, Geographical distribution of seaborne trade, Maritime trade of the Atlantic and East Pacific, Maritime trade of the Pacific and Indian Oceans, Eastern Europe and the former Soviet Union
6. Bulk cargo and the economics of bulk shipping :The commercial origins of bulk shipping , The bulk trades, The ‘transport system’ concept , Handling bulk cargoes , Liquid bulk cargoes , The five major dry bulks , The minor bulk trades , Refrigerated cargo, The vehicle trade
7. The general cargo and the economics of liner shipping: Introduction, The origins of the liner service, Economic principles of liner operation , Liner conferences and their regulation, The components of liner service costs , The liner service cash flow model, Liner prices , The demand for liner services , The liner shipping routes ,The liner fleet, The economics of ships and ship designs
8. The regulatory framework of maritime economics: How maritime regulation affects maritime economics, The institutions that regulate shipping , Self-regulation and the classification societies , The law of the sea , The regulatory role of the flag state ,

9. The economics of shipbuilding and scrapping: Role of the merchant shipbuilding and scrapping industries, Regional structure of world shipbuilding , Shipbuilding market cycles, The economic principles , The shipbuilding production process , shipbuilding costs and competitiveness ,The ship breaking industry.
10. Marketing environment – customer oriented organization – marketing interface with other functional areas marketing in a globalised environment–The concept of global marketing – Importance, Growth and Benefits-Scope and challenge of international marketing.
11. Concept of Port led economy.
12. Multimodal Transportation
13. Economic importance of port as regional economy.

Suggested Reading:

1. Martin Stopford, Maritime Economics
2. E. Karakitkos, L. Varnabides, Maritime Economics: A Macroeconomic Approach
3. Kotler, Keller, Koshy, Jha, Principles of Marketing Management, Prentice Hall.
4. P.K.Vasudeva, International Marketing, Excel books, 2004.

Course Code and Title	Credits	Contact hours
MDSS 521 : Marine Environment & Disaster Management	3	42

Aims:

The objective of this course is to provide updated information and the knowledge of various aspects of marine pollution and the ways and methods of its prevention.

Learning Outcomes:

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

- Identify the basic sources of marine pollution caused by human activities
- Demonstrate fluency to read, analyze and synthesize marine pollution literature
- Know the basic techniques and practices for the monitoring of pollution in the coastal marine environment
- Apply methodologies and techniques to assess/evaluate marine and coastal pollution
- The environmental and ecological concerns associated with marine pollution.

Contents:

1. Marine Pollution : Marine pollution, Types of marine pollution - oil pollution, heavy metal pollution, synthetic organic chemical pollution and eutrophication, Biodegradable vs. Inert Toxic Substances - Using Organisms to Monitor Pollution, Sources of marine pollution
2. Marine Debris: Background - The “garbage patch,” - Plastic in the marine environment - Prediction of Marine Debris Drifting - Impacts of Marine Debris on Marine Life - Impacts of marine litter on human - Marine Debris Research, Prevention, and Reduction
3. Ocean Acidification - The ocean is a carbon sink - Carbon dioxide in the ocean - Humans affect the amount of CO₂ in the ocean - How is marine life affected?
4. Eutrophication What is eutrophication? - Causes of Eutrophication - Environmental Impacts of Eutrophication - Socio-economic Consequences of Eutrophication - Remediation Measures

5. Oil Pollution (Oil spills) - Oil spills- Sources of oil pollution - Environmental effects - Cleanup and recovery - Prevention - Environmental Sensitivity Index (ESI) mapping
6. Thermal Pollution - What is Thermal Pollution? - Thermal Effluents - Major Causes - Effects of Increased Water Temperature - Biotic Effects of Thermal Pollution - Remediation and prevention measure for thermal pollution
7. Monitoring of pollution and environmental impact assessment; Life cycle assessment of marine transport; past, current and proposed approaches for the improvement of marine pollution problems related to marine transports. Pollution Control - Oil; Air; Garbage; Sewage; Ballast water; Oily water separator; Sewage plant; Incinerator.
8. **Coastal and Marine Hazards, Risks and Disasters:** Introduction to Marine hazards, risks and Disasters; Tsunami dynamics; Paleostorm surges and inundation; Storm surge warning, mitigation and adaptation; Sea level rise: causes, impacts and scenarios for change; Adapting to sea level rise; Storm induced morphology changes along barrier islands and poststorm recovery; Extreme waves: causes, characteristics and impact of environment and society; Coral reef system and the complexity of hazards; Living with harmful algal blooms in a changing world: strategies for modelling and mitigation, their effects in coastal marine ecosystem.
9. Impact of climate change on Ocean environment.
10. Tropical Cyclone.

Suggested Reading:

1. Long-Term Environmental Effects of Offshore Oil and Gas Development By Donald F. Boesch; Nancy N. Rabalais
2. Harm to the Environment: The Right to Compensation and the Assessment of Damages by Peter Wetterstein

Course Code and Title	Credits	Contact Hours
MDSS 522: Maritime Safety and Security	3	42

Aim:

The course highlights on related international legislations on various aspects of safety and security in sea. Moreover, the course covers the legal arena for liability in marine collision; salvages and wrecks; towage; pilotage; piracy, hijacking and armed robbery at sea.

Learning Outcomes:

On completion of this course, students are expected to be able to: Use the basic provisions of International conventions to establish national, regional and global individual and collective responsibility for maritime safety and security. Moreover, students would be able to act as attorney on behalf of client filing suit for the violation of the safety measures by the concerned authority and claiming compensation for suffering.

Syllabus Contents:

1. ISM Code. Key issues, Legal status of code. Practical aspects of the code. Company verification, review and evaluation. Case studies. Regulatory framework for maritime security: International ship and port facility security (ISPS) code. Port state control and Flag state control, VTIMS, GMDSS.

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

Suggested Reading:

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

Course Code and Title	Credits	Contact Hours
MDSS 523: Maritime Domain Awareness	3	42

Aims:

The aim of the course is to make the students familiar with the complexity of security issue of maritime domain and to develop their skills in understanding security issue in the field of maritime domain.

Learning Outcomes:

By the end of this course the students would be able to:

- understand the contemporary maritime security issue
- understand the maritime security, threat
- use their knowledge in understanding and analyzing the emergency preparedness in maritime domain

Contents:

1. **Introduction**

Current Security threats and patterns, Notes potential threats and impacts using Historical Incidents, Terrorism vs. Criminal Incidents, Threats, Vessel and Port Operations and Conditions, The Marine

Environment.

2. **Maritime Security Policy, Regulations, and Authority**

Demonstrates awareness of relevant international conventions, codes and recommendations and how they affect local law enforcement

3. **Maritime Threat Planning, Preparedness and Prevention**

Response Planning Prioritization, Perceived Threat, Unseen Threat, Consequence Management Issues, Pre-Incident Planning, Port Security Planning for Response

4. **Threat Identification, Assessment, Recognition, and Response**

Risk Assessments, Port Security Response, Maritime Security (MARSEC) Levels, Maritime Operations, Joint Operations, Command, Control, Communications and Computer Interoperability

5. **Emergency Preparedness, Drills and Exercises**

Awareness of contingency plans, Actions take in case of a breach of security, namely reporting the breach to the proper authority for: Unauthorized personnel, Suspicious Packages, Open access (doors, gates, etc...), Suspicious Activities, Hijacking, Bomb or other CBRNE threat, Unidentified objects/explosives on vessels, Cargo theft, Stowaways, Security drills and exercises.

Course Code and Title	Credits	Contact hours
MDSS 524: International Security Studies	3	42

Aims: This course seeks to introduce students to various dimensions of and issues related to Security, thus, enable them understand it as a discipline.

Learning Outcomes: After the completion of the course the students will be able to:

- Understand the security related issues
- Know the new threats for the international peace and security
- Understand the maritime threats and security issues

Contents:

Concept of Security; Power, politics and human nature in international security, Theoretical bases of security studies: Realism, Liberalism and Social Constructivism, the viewpoint of the key theoretical schools of thought on national and international security;

Use of force in international affairs, limitations in the use of force, the application of international legal and moral principles and standards to the power discourse in politics;

Cold War threats to security. Balance of Power, Deterrence, Containment and Nuclear rivalry views the international security from the prism of bipolar rivalry; the development of conventional and Nuclear weapons and threats to the international securities

Post Cold War threats to national/international security. “New” wars, terrorism, internal conflicts present contemporary threats and challenges to the national security of state and global peace;

Challenges; contemporary challenges to maintain international peace and securities, the role of international communities to deal with contemporary threat, the Security Council and international securities

Introduction to Maritime Security: Freedom of Navigation, Maritime Good Order, Security of SLOCs; Disputes over maritime boundaries and EEZs; Threat of piracy, trafficking and maritime terrorism; Initiatives for co-operation on maritime security.

Peace keeping Operation of UN

Suggested Reading:

Thucydides, History of the Peloponnesian War, Book II: " Pericles' Funeral Oration"; Book Three: "The Mytilenian Debate"; Book V: "The Melian Dialogue".

Art, R.J. 'The Four Functions of Force' in Robert J. Art and Robert Jervis (eds.) 2009. International Politics . Pearson Education Ltd.,

Morgenthau, H. Politics among Nations. The Struggle for Power and Peace. Alfred A. Knopf. Chapter 16: International morality.

Morgenthau, H. J. 'The Balance of Power'. In Kaufman, D.J., Parker, J.M., Howell, P. V., Doty, G.R. (eds.) 2004. Understanding International Relations. The Value of Alternative Lenses. McGraw Hill

Jordan, A.A., Taylor, W.T.Jr. et al. 1981. American National Security. Policy and Process. The Johns Hopkins University Press. Chapter II: National Security Policy: Actors and Processes, esp. 93-195.

Schachter, O. 'Sovereignty and Threats to Peace', in Weiss, T.G. (ed.) 1993. Collective Security in a Changing World. Lynne Reiner Publishers, 19-44.

M.C. Chatterjee – Globalization and Maritime Security in the 21st Century, (2014: Sumit Enterprises)

Christian LeMiere – Maritime Diplomacy in the Twenty-First Century, (2014: Routledge)

Course Code and Title	Credits	Contact hours
MDSS 525: Research Methodology	3	42

Aim:

The primary aim 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.

Learning Outcomes:

The students might know how to design, implement and complete the research activities. It would include writing a proposal and academic writing.

Syllabus Contents:

1. Introduction to Research - Research in Business – Research Process-Research Need, formulating the problem, designing, sampling, pilot testing - Thinking Like a Researcher and Proposals - Ethics in Business Research.

2. Research Design- Exploratory, Descriptive, Casual, Formulation of hypothesis - types. Measurement- characteristics of sound measurement tool, Scaling methods and sampling techniques- Nature, simple probability and complex probability – Non-probability samples.

3. Sources and Collection of Data- : Primary and secondary sources, survey observation,

experimentation- details and evaluation. - Questionnaires – schedules and Instruments – Coding, data entry, tabulation & cross tabulation-and Graphic presentation – Examining Data.

4. Analysis and Preparation: Hypothesis testing – statistical significance, statistical testing procedure. Tests of significance- Types and selection of tests- Multivariate Analysis Techniques - Simple Correlation -Regression Analysis -Multivariate Techniques – Variable in Multivariate Analysis -Important Methods of Factor Analysis

5. Presenting results and writing the report: - Written and Oral Reports, The written research report, preparatory items, introduction, methodology, findings and conclusions- writing the draft to presentation – Oral presentation – preparation, delivery and audio-visuals.

Suggested Reading:

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

Course Code and Title	Credits	Contact Hours
MDSS 531: Maritime Strategy: Theory and Practice	3	42

Aims:

The aim of the course is to make the students familiar with the complexity of developing a maritime strategy and to develop their skills in understanding technical matters in the field of maritime domain.

Learning Outcomes:

By the end of this course the students would be able to:

- understand the contemporary naval strategy; and
- understand political uses of navies—short of war
- understand the political uses of sea power in peacetime
- use their knowledge in understanding and analyzing the identification of sea control as a priority military task within a nation’s maritime strategy
- analyzes questions of grand strategy, or how a state uses all the forms of national power to achieve its broader goals.

Syllabus Contents:

- 1 An Introduction
 - (a) The influence of sea power on history (b) The influence of history on sea power (c) The principles of maritime strategy (d) An anatomy of sea power
2. Constituents of a maritime strategy
 - (a) Maritime strategy in the age of the galley (b) Maritime strategy in the age of sail (c) Alfred

Thayer Mahan (d) Sir Julian Corbett (e) Admiral Sir Herbert Richmond (f) Continental maritime strategy 1918-39 (g) Reactions to the Second World War (h) American thinking on naval strategy 1945-80

3 Sources and Elements

(a) A maritime community (b) Resources (c) Styles of government (d) Geography and geo-politics (e) Shipping (f) Bases (g) The fighting instrument

4. A New Environment for Navies

a) The political environment (b) International law and maritime operations (i) Before 1945 (ii) After 1945 (c) The new technology

5. Old Tasks for New Navies

(a) Navies in the nuclear age (b) Securing command of the sea (c) Sea control (d) The defence of sea lines of communication (e) The projection of power ashore

6. New Tasks for New Navies

(a) The protection of the offshore estate (b) Naval diplomacy (c) Strategic deterrence (d) Maritime strategy: Past, present and future

Course Code and Title	Credits	Contact Hours
MDSS 532: Maritime governance and Resource Management II	3	42

Aims:

The aim of the course is to make the students familiar with comprehensive arena of maritime governance and to develop their skills in understanding technical matters in the field of complex and dynamic maritime environment.

Learning Outcomes:

By the end of this course the students would be able to:

- understand logical steps and tasks of setting up a successful MSP program; and
- understand the human activities that adversely affect important natural marine area
- understand the development and implementation of MSP
- develop a broad level understanding of planning processes and the governance, policy/legislative, ecological, social, cultural and economic elements of coastal and ocean areas complemented by practical and applied skills for stakeholder engagement, project management and utilization of geospatial technology to support planning efforts

Syllabus Contents:

Coastal Zone Management: Integrated Coastal Zone Management concept and method, Development of blue economy and boost marine emerging industry, Promoting marine culture and enhance public conscious of maritime activities, The future plan of marine functional zones in Bangladesh, Integrated Coastal Zone Management in various countries. Marine Functional Zoning System & Blue Economy Development, What is MSP? A Brief History of MSP and ITS Roots, MSP, Integrated Coastal Zone Management & Water Quality Management, Marine Observation and Monitoring Technology, Progresses and Achievements of China Marine Functional Zoning,

Organizing the Process through Pre-Planning, Preparing and Approving the Marine Spatial Management Plan, Implementing and Enforcing the Marine Spatial Management Plan, Ocean Governance. Overview of maritime governance in Bangladesh, Ocean Policy making.

Course Code and Title	Credits	Contact Hours
MDSS 500: Dissertation	12	--

Aims:

The purpose of this course is to enable the student to develop deeper knowledge, understanding, capabilities and attitudes in the context of the programme of study.

Learning Outcomes:

Students who complete the course successfully will able to-

- plan and write a suitable dissertation proposal;
- display evidence of understanding the requirements of focusing research ideas;
- display evidence of understanding the requirements of dissertation writing;
- plan and write a dissertation that evaluates and synthesises written materials;
- display evidence of independent research skills; and
- engage in a sustained piece of individual, academic research on a chosen topic.

Syllabus Contents:

Every student will have to produce a Dissertation (not less than 10,000 words) on a selective topic. The student, in consultation with the concerned course teacher/supervisor will choose the topic and the topic is to be approved by the competent authority.

Course Code and Title	Credits	Contact Hours
DEV 501: Study Tour/Filed Trip -1	1	3-4 days
DEV 503: Study Tour/Filed Trip -2	1	3-4 days
DEV 505: Study Tour/Filed Trip -3	0	3-4 days

Aim:

To orient students with the practical function of different maritime organizations.

Learning Outcomes:

After the completion of the trip/visit, the students will be able to:

- Explain the practical functions of maritime organisation
- Analyze the duties and responsibilities of different maritime professionals

Method of Conduct:

Every semester, there will be one study tour/ field trip. The study tour/ field trip will normally be conducted within the country. However, study tour/ field triphird semester may be conducted in overseas countries subject to availability of sponsorship. All of the visit will be conducted in maritime organizations. like. ports, dockyards, different shipping companies, ICDs, Terminals, Bangladesh Navy, Maritime institutes, Freight forwarder agencies etc.

Course Code and Title	Credits	Contact Hours
DEV 502: Student Concluding Seminar -1	1	2-3 days
DEV 504: Student Concluding Seminar -2	1	2-3 days
DEV 506: Student Concluding Seminar -3	1	2-3 days

Aim:

To train the students to conduct the seminar.

Learning Outcomes:

After the completion of student concluding seminar, the students will be able to:

- Organize any seminar
- Deliver speech in a big platform.

Method of Operation:

In each semester there will be one Student Concluding Seminar. Student will organise the whole seminar on their own.
