University of Kyrenia

Faculty of Maritime Studies

Maritime Management

Syllabus

Course name: Marine Communication							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
COM201	II	Fall	3	4	2	2	0
Course type: Compulsory				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				60	-	-	40
Course Venue and Time				Friday / 09:30 – 13:20			
Instructor information				**Cpt. Orhan Kamil Babaoğlu** Faculty of Maritime Studies Wednesday / 09:00 - 12:00 +90 (392) 650 26 00 / 4040 orhankamil.babaoglu@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	This course provides students with a comprehensive understanding of maritime communication systems, methods, and international regulations. It covers both traditional and modern means of communication at sea, including visual signaling with Morse code and the International Code of Signals, as well as radio telephony and radiotelex communication. Special emphasis is placed on the Global Maritime Distress and Safety System (GMDSS), emergency communication procedures, and the use of standardized Maritime English for safety and distress messages. Through theoretical instruction and practical exercises, students gain the necessary competence to send, receive, and interpret visual and radio signals, handle emergency and search-and-rescue communications, and apply international standards to ensure safety at sea.
Course Aims and Objectives	The primary aim of this course is to equip students with the theoretical knowledge and practical skills necessary for effective and reliable maritime communication. It seeks to develop competence in the use of visual and radio communication systems, familiarize students with international regulations and standards, and enhance their ability to manage emergency and safety-related communications at sea. • Understand the principles, functions, and importance of maritime communication systems. • Gain proficiency in visual signaling methods, including Morse code and the International Code of Signals. • Apply correct procedures for radiotelephony and radiotelex communication between ships and coastal stations. • Demonstrate familiarity with the Global Maritime Distress and Safety System (GMDSS) and its operational requirements. • Acquire competence in using standardized Maritime English for distress, safety, and urgency messages. • Recognize and correctly apply international conventions and codes governing communication at sea. • Develop the ability to respond effectively to emergency and search-and-rescue (SAR) communication scenarios.

Course Learning Outcomes	**LO1:** Explain the principles and importance of maritime communication within the framework of international conventions and regulations. **LO2:** Demonstrate proficiency in transmitting and receiving information using visual signaling methods, including Morse code and the International Code of Signals **LO3:** Apply correct procedures for radiotelephony and radiotelex communication in both routine and emergency situations **LO4:** Operate and monitor communication equipment in accordance with the requirements of the Global Maritime Distress and Safety System (GMDSS) **LO5:** Use Standard Maritime Communication Phrases (SMCP) and Maritime English effectively in distress, urgency, and safety messages. **LO6:** Identify and interpret internationally recognized communication codes and symbols for safe ship operations. **LO7:** Perform emergency communication tasks related to search and rescue (SAR) operations, distress calls, and safety alerts. **LO8:** Evaluate and troubleshoot common problems related to communication systems and propose appropriate corrective measures. **LO9:** Integrate communication practices with safety management and operational procedures on board ships.

Content of the Course

Week	*Subject*
1	**Introduction to Maritime Communication** Scope, importance, and international framework
2	**Visual Signaling in Maritime Communication** Concepts and applications
3	**Visual Signaling in Maritime Communication** Concepts and applications
4	**Distress Signals** SOS in accordance with COLREG 72 Annex IV
5	**International Code of Signals** Structure, purpose, and applications
6	**Single-Letter Signals in the International Code of Signals** Visual signaling practices
7	**Radio Communication in Shipping** Radiotelephone and radiotelex operations
8	**Ship-to-Ship and Ship-to-Shore Communication** Procedures, protocols, and safety aspects
9	**Maintenance and Testing of Communication Equipment** Operational checks and reliability standards
10	**Practical Applications of the International Code of Signals** Communication exercises
11	**Global Maritime Distress and Safety System (GMDSS)** Concept, structure, and implementation
12	**Emergency Communication and Distress Alerts** Sending and responding to distress calls
13	**Relay of Distress Communications** Transmission of received calls to other stations
14	**Search and Rescue Communication** IAMSAR guidelines and coordination practices
15	**Maritime English for Emergency and Safety Messages** Standardized vocabulary, message formats, and final practice

Methods and Techniques used in the Course

Lectures and Presentations: Theoretical foundations of maritime communication, international conventions, and regulatory frameworks are delivered through instructor-led sessions.

Classroom Discussions: Interactive discussions are encouraged to enhance understanding of maritime safety communication practices.

Practical Training and Simulations: Students practice Morse signaling, radiotelephony, radiotelex, and GMDSS operations through simulated exercises.

Laboratory and Equipment-Based Learning: Use of communication equipment such as VHF radios, Aldis lamps, and GMDSS consoles for hands-on training.

Case Studies and Problem-Solving Exercises: Real-life maritime incidents and communication failures are analyzed to improve decision-making and response skills.

Role-Playing and Drills: Students perform emergency communication tasks, including distress, urgency, and safety messages, using Standard Maritime Communication Phrases (SMCP).

Collaborative Group Work: Small group exercises to encourage teamwork in communication scenarios, especially for search and rescue coordination.

Assignments and Projects: Written and practical assignments designed to assess knowledge of international signal codes, communication procedures, and operational practices.

Assessment Through Quizzes and Exams: Regular evaluation of theoretical knowledge and applied skills.

Sample Questions

Part A – Theoretical Questions

- Define the Global Maritime Distress and Safety System (GMDSS) and explain its importance for maritime safety.
- What are the basic principles of Morse code communication? Provide examples of distress signals.
- Explain the difference between radiotelephony and radiotelex communication in maritime operations.
- Discuss the role of the International Code of Signals (ICS) in maritime communication.
- What are the main types of emergency messages transmitted in maritime communication, and when are they used?

Part B – Practical/Applied Questions

- Translate the following distress message into proper Standard Marine Communication Phrases (SMCP):
  - *"We are sinking, need immediate assistance, position 35° 40′ N – 27° 15′ E."*
- Using the International Code of Signals, explain what the single-letter signals **"A"**, **"N"**, and **"O"** indicate.
- Write down the Morse code equivalent of the distress signal **SOS** and demonstrate how it would be transmitted with an Aldis lamp.
- A ship receives a MAYDAY call but cannot provide assistance directly. Describe the proper communication procedure.
- Explain how communication procedures differ between **distress**, **urgency**, and **safety** messages.

Materials Used in the Course

Textbooks and References

- Lees,G., Williams, W.G., Handbook for Marine Radio Communication, 6th Ed. Informa Law from Routledge, London.
- International Maritime Organization (IMO) publications related to communication procedures.
- *International Code of Signals (ICS)*.
- *IAMSAR Manual, Vol. III* (International Aeronautical and Maritime Search and Rescue Manual).
- *GMDSS Handbook* and related IMO model course materials.
- COLREG 1972, Annex IV – Distress Signals.
- Standard Marine Communication Phrases (SMCP) by IMO.

Supplementary Readings

- Academic articles and case studies on maritime communication, safety, and emergency response.
- National maritime communication regulations and guidelines.

Practical Training Materials

- Morse code charts and signaling guides.
- Aldis lamp and visual signaling equipment.
- GMDSS simulators and communication software.
- VHF, MF/HF radios, NAVTEX, INMARSAT terminals.

Multimedia Resources

- Training videos on distress and safety communication procedures.
- Audio recordings for practicing Standard Marine Communication Phrases.
- Interactive e-learning modules on maritime radio communication.

Classroom Materials

- Lecture notes, handouts, and PowerPoint presentations prepared by the instructor.
- Sample communication logs and report forms for practice.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
	LO1	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	**LO7**	**LO8**	**LO9**	**LO10**
PO1	1	1	1	1	1	1	1	1	1	NA
PO2	1	1	1	1	1	1	1	1	1	NA
PO3	1	1	1	1	1	1	1	1	1	NA
PO4	1	1	1	1	1	1	1	1	1	NA
PO5	2	2	2	2	2	2	2	2	2	NA
PO6	2	2	2	2	2	2	2	2	2	NA
PO7	1	1	1	1	1	1	1	1	1	NA
PO8	1	1	1	1	1	1	1	1	1	NA
PO9	1	1	1	1	1	1	1	1	1	NA
PO10	3	3	2	2	3	3	3	2	2	NA
PO11	2	2	2	2	2	2	2	2	2	NA
PO12	1	1	1	1	1	1	1	1	1	NA
PO13	1	1	1	1	1	1	1	1	1	NA
PO14	1	1	1	1	1	1	1	1	1	NA
PO15	1	1	1	1	1	1	1	1	1	NA

Course Learning Outcomes/ Evaluation Method		
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
LO1	Lecture, Question-Answer	Midterm Exam, Final Exam
LO2	Lecture, Group Discussion, Homework	Homework, In-Class Exercises, Midterm Exam
LO3	Lecture, Hands-on Practice, simulator sessions	Quizzes, Midterm Exam, Final Exam
LO4	Lecture, simulator, Hands-on Practice	Assignments, Midterm Exam, Final Exam
LO5	Lecture, simulator Sessions, In-Class Exercises	Quizzes, Midterm Exam, Final Exam
LO6	Lecture, In-Class Exercises	Midterm Exam, Final Exam
LO7	Hands-on Practice, simulator sessions	Assignments, role-play
LO8	Hands-on Practice, simulator sessions	Assignments
LO9	Hands-on Practice, simulator sessions	Assignments, role-play

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Preparation for lectures	**15**	**1**	**15**
Lectures	**15**	**4**	**60**
Midterm Exam	**1**	**3**	**3**
Preparation for Midterm Exam	**1**	**10**	**10**
Final Exam	**1**	**3**	**3**
Preparation for Final Exam	**1**	**15**	**15**
Presentation(s)	**-**	**-**	**-**
Preparation for Presentation(s)	**-**	**-**	**-**
Research for Project(s)/Essay(s)	**-**	**-**	**-**
Project Writing	**-**	**-**	**-**
Group Work	**-**	**-**	**-**
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	**2**	**1**	**2**
Preparation for Quiz(es)	**-**	**-**	**-**
Laboratory	**15**	**1**	**15**
Assignment(s)/Homework/Class Works	**2**	**1**	**2**
Micro-Teaching Sessions	**-**	**-**	**-**
Lesson Planning	**-**	**-**	**-**
Materials Adaptation	**-**	**-**	**-**
Material Development	**1**	**1**	**1**
Draft Preparation	**-**	**-**	**-**
Drawing	**-**	**-**	**-**
Essay Writing	**-**	**-**	**-**
Tutorial(s)	**-**	**-**	**-**
Portfolio Preparation	**1**	**1**	**1**
Portfolio Presentation	**-**	**-**	**-**
Total Workload			**142**
ECTS Credit			**4**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	15	10
Laboratory	15	10
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	2	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	1	10
Project	-	-
Quiz	2	10
Midterms/Oral Exams	1	20
Final/Oral Exams	1	30
Total	**7**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Faculty of Maritime Studies

Maritime Management

Syllabus

Course name: Chartering and Shipbroking I							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
CSB201	II	Fall	3	6	3	0	0
Department: Maritime Management							
Course type: Compulsory				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				-	-	-	100
Course Venue and Time				Monday / 08:30 – 11:20			
Instructor information				**Hüseyin Meray** Faculty of Maritime Studies Wednesday / 09:00 – 12:00 +90 (392) 650 26 00 / 4040 huseyin.meray@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	This course provides an in-depth understanding of maritime commercial operations, ship chartering, and freight contracts. It covers various types of charters, including voyage, time, and bareboat charters, and examines the legal and operational aspects of charter negotiations. The course introduces students to freight markets, international trade terms, and the roles of shipping agents and brokers. Students will gain practical knowledge in handling shipping documentation, including bills of lading, letters of credit, manifests, and ship logbooks. Additionally, the course emphasizes the use of Maritime English for effective communication in commercial shipping and contract management, equipping students with the skills to operate efficiently in international maritime business environments.
Course Aims and Objectives	The aim of this course is to provide students with a comprehensive understanding of maritime commercial operations, ship chartering processes, and freight contract management. It seeks to equip students with the theoretical knowledge and practical skills necessary to operate effectively in international shipping markets, understand the legal and commercial framework of charter parties, and manage ship-related documentation proficiently. • Explain the structure and functioning of maritime markets and shipping services, including liner and tramp operations. • Distinguish between different types of charter parties, including voyage, time, and bareboat charters, and understand their contractual elements. • Analyze the negotiation processes for charter contracts, including offers, counter offers, and contractual obligations. • Identify and interpret key shipping documents, such as bills of lading, letters of credit, manifests, and ship logbooks. • Apply Maritime English in commercial shipping contexts for effective communication with agents, brokers, and other maritime stakeholders. • Understand international trade terms (INCOTERMS) and their implications for chartering and cargo operations.

	• Demonstrate knowledge of legal, operational, and safety responsibilities in ship hiring and cargo handling contracts.
Course Learning Outcomes	**LO1.** Explain global shipping markets, chartering types, and basic structures of maritime commercial operations. **LO2.** Analyze the contractual elements, responsibilities, and commercial implications of voyage, time, and bareboat charters. **LO3.** Interpret chartering terminology, freight concepts, and market dynamics. **LO4.** Apply the offer–counter offer mechanism and negotiation techniques used in chartering. **LO5.** Identify and classify main shipping documents (Bill of Lading, Letter of Credit, Mate's Receipt, etc.) and explain their functions. **LO6.** Evaluate the roles, duties, and responsibilities of agents and brokers within chartering processes. **LO7.** Prepare voyage-related documentation (SOF, Time Sheets, Manifests, etc.) and relate them to operational procedures. **LO8.** Interpret INCOTERMS and international trade terminology in relation to charter parties and freight contracts. **LO9.** Explain the role of international maritime organizations (IMO, ILO, BIMCO, etc.) in commercial shipping operations. **LO10.** Use English terminology, professional correspondence, and logbook entries accurately in commercial maritime operations.

Content of the Course

Week	*Subject*
1	**Introduction to Maritime Commercial Operations** Overview of shipping markets, liner services, tramp operations, and freight concepts.
2	**Freight and Chartering Markets** Freight rates, market dynamics, and types of charters.
3	**Voyage Charter Elements** Key components, clauses, and operational considerations.
4	**Time Charter Elements** Contract terms, responsibilities, and performance obligations.
5	**Bareboat Charter Elements** Structure, rights, and obligations of parties.
6	**Charter Negotiations** Offer and counter-offer strategies, negotiation techniques, and related abbreviations.
7	**Bills of Lading and Letters of Credit** Documentation, relationships with charter parties, and indemnity letters.
8	**Agents and Brokerage** Types of agents, freight brokers, and their roles in ship hiring.
9	**Pre-shipment Documentation** Preparation letters, Statement of Facts (SOF), Time Sheets, Mate's Receipts, Manifests, and Loading Orders.
10	**International Trade Terms** INCOTERMS, common shipping abbreviations, and standard terminology.
11	**Appropriate Flag States and Freight Conferences** Regulatory compliance, flag selection, and conference structures.
12	**International Maritime Organizations** Structure, purpose, and role in commercial shipping operations.
13	**Maritime English for Commercial Operations** Key vocabulary and terminology for chartering, freight, and shipping operations.
14	**Ship Documentation in English** Onboard documentation, port documents, cargo documents, and reporting procedures.
15	**Ship Logbooks and Maritime Correspondence** Ship journals, operational records, protests, record-keeping, and official correspondence in English.

Methods and Techniques used in the Course

Lectures: Systematic delivery of theoretical concepts on maritime commercial operations, charter parties, and freight contracts.

Case Studies: Analysis of real-world scenarios related to ship hiring, charter negotiations, and contractual disputes to develop problem-solving skills.

Group Discussions and Workshops: Collaborative sessions to explore negotiation techniques, risk management, and practical applications of maritime law and contracts.

Document Analysis: Practical exercises in interpreting and preparing key shipping documents such as bills of lading, charters, manifests, and letters of credit.

Maritime English Exercises: Focused practice in professional communication, correspondence, and terminology used in ship hiring and commercial operations.

Simulations: Role-playing and scenario-based exercises simulating charter negotiations, cargo operations, and dispute resolution.

Assignments and Reports: Individual and group assignments analyzing contract clauses, international trade terms, and case study findings.

Guest Lectures / Industry Insights: Sessions by maritime professionals to provide practical perspectives on ship operations and commercial practices.

Sample Questions

- Explain the key differences between **voyage charter**, **time charter**, and **bareboat charter** contracts, including the responsibilities of each party.
- Discuss the main elements of a **charter party** and their legal significance in international shipping.
- Describe the process of **negotiating freight rates** and the role of **charter brokers** in maritime commerce.
- What are the essential **documents** required for cargo operations, and how do they affect the rights and responsibilities of the shipowner and charterer?
- Define the term **Statement of Facts (SOF)** and explain its importance in calculating laytime and demurrage.
- How are **INCOTERMS** applied in maritime trade, and what impact do they have on risk and cost allocation between the parties?
- Explain the legal and practical aspects of **claims arising from cargo damage** or delays during transportation.
- Discuss the importance of **maritime English** in ensuring accurate communication in ship operations and contract management.
- Analyze a hypothetical **charter dispute case** and propose a resolution strategy based on international maritime law.
- Identify the responsibilities of a ship's master under a **time charter contract** and explain how they differ from those under a **voyage charter**.

Materials Used in the Course

Textbooks and Reference Books:

- Standard textbooks on maritime commercial law, chartering, and freight contracts.
- Guides on INCOTERMS, Bills of Lading, and Maritime English.

International Conventions and Guidelines:

- Relevant IMO guidelines, SOLAS, MARPOL, and STCW references.
- Sample charter parties and freight contracts.

Ship Documentation:

- Bills of Lading, Cargo Manifests, Time Sheets, Statement of Facts.
- Ship's Logbook, Protest Letters, and other official vessel records.

Online Resources and Databases:

- Shipping industry reports, legal case studies, and commercial dispute resolutions.
- Digital platforms for maritime trade and chartering information.

Software Tools:

- Simulation tools for charter negotiations and cargo operations.
- Document management and drafting software for maritime correspondence.

Supplementary Materials:

- Handouts, presentations, and practical exercises for contract interpretation and negotiation.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
	LO1	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	**LO7**	**LO8**	**LO9**	**L10**
PO1	3	3	2	2	2	1	3	2	2	2
PO2	3	3	3	2	2	1	2	1	2	1
PO3	2	3	1	3	3	2	1	3	1	1
PO4	2	2	1	2	3	3	2	2	2	2
PO5	1	2	2	1	1	2	2	2	3	3
PO6	1	2	1	2	1	1	2	3	2	2
PO7	1	1	1	1	1	3	2	2	3	3
PO8	1	1	3	1	1	1	2	1	2	1
PO9	1	1	2	1	1	1	1	1	2	2
PO10	2	2	1	2	3	3	2	2	2	2
PO11	1	2	2	1	1	2	2	2	3	3
PO12	1	2	1	2	1	1	2	3	2	2
PO13	3	3	3	2	2	1	2	1	2	1
PO14	2	3	1	3	3	2	1	3	2	2
PO15	1	2	1	2	2	3	2	2	3	3

Course Learning Outcomes/ Evaluation Method		
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
LO1 Explain global shipping markets, chartering types, and basic structures of maritime commercial operations.	Lecture, Case Study	Midterm, Final Exam
LO2 Analyze the contractual elements, responsibilities, and commercial implications of voyage, time, and bareboat charters.	Lecture, Charter Party Analysis	Midterm, Final Exam
LO3 Interpret chartering terminology, freight concepts, and market dynamics.	Lecture, Market Report Review	Quiz, Final Exam
LO4 Apply the offer–counter offer mechanism and negotiation techniques used in chartering.	Role-play Negotiations, Group Work	Assignment, Participation
LO5 Identify and classify main shipping documents (Bill of Lading, Letter of Credit, Mate's Receipt, etc.) and explain their functions.	Document Analysis, Lecture	Midterm, Assignment
LO6 Evaluate the roles, duties, and responsibilities of agents and brokers within chartering processes.	Lecture, Case Study	Final Exam
LO7 Prepare voyage-related documentation (SOF, Time Sheets, Manifests, etc.) and relate them to operational procedures.	Practical Document Preparation	Assignment, Quiz
LO8 Interpret INCOTERMS and international trade terminology in relation to charter parties and freight contracts.	Lecture, Scenario-Based Exercises	Quiz, Final Exam
LO9 Explain the role of international maritime organizations (IMO, ILO, BIMCO, etc.) in commercial shipping operations.	Lecture, Regulatory Review	Midterm, Final Exam
LO10 Use English terminology, professional correspondence, and logbook entries accurately in commercial maritime operations.	Terminology Workshops, Writing Exercises	Assignment, Final Exam

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Preparation for lectures	**15**	**3**	**45**
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**10**	**10**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**10**	**10**
Presentation(s)	**-**	**-**	**-**
Preparation for Presentation(s)	**-**	**-**	**-**
Research for Project(s)/Essay(s)	**-**	**-**	**-**
Project Writing	**-**	**-**	**-**
Group Work	**2**	**5**	**10**
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	**-**	**-**	**-**
Preparation for Quiz(es)	**-**	**-**	**-**
Laboratory	**-**	**-**	**-**
Assignment(s)/Homework/Class Works	**2**	**5**	**10**
Micro-Teaching Sessions	**-**	**-**	**-**
Lesson Planning	**-**	**-**	**-**
Materials Adaptation	**-**	**-**	**-**
Material Development	**-**	**-**	**-**
Draft Preparation	**-**	**-**	**-**
Drawing	**-**	**-**	**-**
Essay Writing	**-**	**-**	**-**
Tutorial(s)	**-**	**-**	**-**
Portfolio Preparation	**-**	**-**	**-**
Portfolio Presentation	**-**	**-**	**-**
Total Workload			**149**
ECTS Credit			**6**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	-	-
Laboratory	-	-
Application	2	10
Field Work	2	10
Special Course Internship (Work Placement)	-	-
Homework/Assignments	2	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	40
Total	**2**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Principles of Marketing							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
EAS204	II	Fall	3	4	3	0	0
Course type: Compulsory				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				-	-	-	100
Course Venue and Time				Monday / 09:30 – 12:20			
Instructor information				**Assist. Prof. Emete Toros** Faculty of Administrative Sciences and Economics Wednesday / 09:00 - 12:00 +90 (392) 650 26 00 / 4060 emete.toros@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	**Principles of Marketing** introduces students to the foundational concepts, analytical tools, and strategic frameworks used in modern marketing management. The course focuses on how companies create customer value, build strong relationships, and achieve competitive advantage through effective marketing strategies. Students will explore company-wide strategic planning, marketing's role in partnering to build customer engagement, and the development of value-driven marketing programs. Key topics include analyzing the dynamic marketing environment; understanding consumer and business buying behavior; developing customer value–driven segmentation, targeting, and positioning strategies; and designing integrated marketing programs. The course also examines product, service, and brand strategies aimed at building long-term customer value, as well as the processes of new product development and managing the product life cycle. Additionally, students will study pricing strategies to understand and capture customer value within competitive markets. Through real-world examples, case studies, and practical applications, students gain a comprehensive understanding of how marketing decisions influence organizational success and long-term customer relationships.
Course Aims and Objectives	The primary aim of this course is to provide students with a comprehensive understanding of modern marketing principles, strategies, and practices used by organizations to create customer value and build long-term customer relationships. The course equips students with the analytical skills and strategic perspective necessary to evaluate marketing environments, understand buyer behavior, and design value-driven marketing programs. • Understand the strategic role of marketing within the broader organizational and corporate planning process. • Explain how companies create value and cultivate customer engagement to build profitable and sustainable relationships. • Analyze the marketing environment and identify key environmental factors that influence marketing strategies and decisions. • Evaluate consumer and business buyer behavior and apply relevant concepts to real-world marketing situations. • Develop customer value–driven segmentation, targeting, and positioning strategies. • Explain the principles of product, service, and brand management for building long-term customer value. • Describe the processes of new product development and product life cycle management.

	• Apply pricing principles that reflect customer value, cost considerations, and competitive dynamics. • Integrate marketing concepts into practical decision-making through case studies, discussions, and analytical exercises.
Course Learning Outcomes	**CLO1:** Explain the fundamental concepts of marketing and the role of marketing in creating customer value and engagement. **CLO2:** Analyze the marketing environment and assess how external factors influence marketing strategies. **CLO3:** Evaluate consumer and business buyer behavior and apply behavioral insights to marketing decisions. **CLO4:** Formulate segmentation, targeting, and positioning (STP) strategies for value-driven marketing. **CLO5:** Explain the strategic importance of products, services, and brands, and assess how organizations build and manage customer value. **CLO6:** Analyze the process of new product development and manage product life cycle strategies. **CLO7:** Apply pricing concepts and strategies to capture customer value while considering costs, competition, and market demand. **CLO8:** Develop integrated marketing strategies that align with company objectives and customer needs. **CLO9:** Evaluate marketing strategies using real-world cases and propose evidence-based solutions to marketing problems. **CLO10:** Demonstrate the ability to integrate marketing concepts into practical decision-making through analysis, problem solving, and communication of marketing insights.

Content of the Course

Week	*Subject*
1	Introduction to Marketing – Definition, scope, and evolution of marketing – Customer value, satisfaction, and engagement concepts
2	Company and Marketing Strategy – Strategic planning process – Partnering to build customer value and relationships – The marketing mix and marketing's role within the organization
3	The Marketing Environment – Micro and macro environmental forces – Environmental scanning and trend analysis
4	Consumer Buyer Behavior – Consumer decision-making process – Psychological, personal, social, and cultural influences
5	Business Buyer Behavior – Types of business markets – Business buying process and buying situations
6	Customer Value-Driven Marketing Strategy – Market segmentation approaches – Target market selection – Positioning and differentiation strategies
7	Product Strategy – Product levels, classifications, and attributes – Branding strategies and brand equity
8	Services Marketing – Service characteristics – Service quality and service management strategies
9	Developing New Products – New product development (NPD) process – Innovation and commercialization strategies

10	Product Life Cycle (PLC) Management – Stages of PLC and strategic implications – Managing, modifying, and extending products
11	Pricing Strategy – Foundations – Understanding costs, demand, and competition – Customer value–based pricing principles
12	Pricing Strategy – Applications – New product pricing – Price adjustments and psychological pricing
13	Branding and Product Portfolio Management – Brand positioning and portfolio strategies – Packaging and labeling decisions
14	Integrated Marketing Strategy – Aligning product, price, place, and promotion strategies – Creating value-driven marketing programs
15	Course Review and Case Study Presentations – Comprehensive review of marketing concepts – Analysis of real-world marketing cases

Methods and Techniques used in the Course

Lectures: Delivery of foundational marketing concepts, frameworks, and strategic models.

Case Study Analysis: Examination of real-world marketing scenarios to apply segmentation, positioning, pricing, and branding strategies.

Class Discussions: Interactive discussions on marketing trends, consumer behavior, and strategic decision-making.

Problem-Solving Exercises: Application of analytical tools for market analysis, pricing decisions, and strategic planning.

Group Projects: Team-based development of marketing plans, customer value propositions, and product strategies.

Presentations: Student presentations on selected marketing cases or strategic analyses to enhance communication skills.

In-Class Activities and Workshops: Hands-on exercises such as buyer behavior mapping, brand evaluation, and product life cycle simulations.

Multimedia Resources: Use of videos, digital tools, and marketing software to illustrate contemporary marketing practices.

Quizzes and Exams: Formal assessments to evaluate comprehension of theories and ability to apply marketing principles.

Research and Assignments: Individual or group homework tasks requiring analysis of marketing problems using data and strategic reasoning.

Sample Questions

Short-Answer / Conceptual Questions

- Define customer value and explain its importance in modern marketing.
- What are the major components of the marketing environment? Provide one example for each.
- Explain the difference between market segmentation and target marketing.
- What is the Product Life Cycle (PLC)? Briefly describe its main stages.
- Explain the concept of value-based pricing and contrast it with cost-based pricing.

Analytical / Applied Questions

- A company faces increasing competition in its industry. Analyze the macro-environmental factors (PESTEL) that could be influencing its market position.
- A firm wants to launch a new product. Outline the steps of the New Product Development (NPD) process and identify potential risks at each step.
- Given a target market consisting of young professionals, propose a positioning statement and justify your strategic choices.
- A product is currently in the maturity stage of the PLC. Recommend marketing strategies to extend the product's life cycle.
- A business is considering lowering its price to increase demand. Evaluate the potential advantages and disadvantages using demand and customer value concepts.

Case Study–Based Questions

- A company notices a decline in customer satisfaction scores. Based on buyer behavior theories, identify possible reasons and suggest corrective actions.
- A global brand plans to enter a new international market. Assess the key cultural, economic, and political factors that the firm must consider.
- Review the following marketing mix for a company (product details provided in the case). Identify weaknesses and propose improvements using the 4Ps framework.
- A service provider receives complaints regarding inconsistent service quality. Apply services marketing principles to develop a solution plan.
- Based on the provided financial and market data, determine whether the firm should adopt a penetration pricing or skimming pricing strategy.

Materials Used in the Course

Primary Textbooks

- **Kotler, P., Armstrong, G.** *Principles of Marketing*. Pearson.
- **Solomon, M. R., Marshall, G. W., Stuart, E. W.** *Marketing: Real People, Real Choices*. Pearson.

Recommended References

- **Kerin, R., Hartley, S., Rudelius, W.** *Marketing*. McGraw-Hill.
- **Lamb, C. W., Hair, J. F., McDaniel, C.** *MKTG*. Cengage Learning.
- **Kotler, P., Keller, K. L.** *Marketing Management*. Pearson.
- **Hoyer, W. D., MacInnis, D. J.** *Consumer Behavior*. Cengage.
- **Cateora, P., Gilly, M., Graham, J.** *International Marketing*. McGraw-Hill.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
PO / CLO	**CLO1**	**CLO2**	**CLO3**	**CLO4**	**CLO5**	**CLO6**	**CLO7**	**CLO8**	**CLO9**	**CLO10**
PO1	3	3	3	3	2	2	2	2	2	2
PO2	3	3	3	3	3	3	3	3	3	3
PO3	2	2	2	2	1	1	2	2	2	2
PO4	2	2	2	2	2	2	2	2	2	2
PO5	1	1	2	2	2	2	2	2	3	3
PO6	1	1	1	2	1	1	2	2	2	2
PO7	1	1	1	1	2	2	2	2	2	2
PO8	1	1	2	1	1	1	2	2	2	2
PO9	1	1	2	1	1	1	2	2	2	2
PO10	2	2	1	2	2	3	2	2	2	3
PO11	1	2	2	1	1	2	2	2	3	3
PO12	1	2	1	2	1	1	2	2	2	2
PO13	2	3	3	2	2	1	2	1	2	2
PO14	2	2	1	2	2	2	1	2	2	2
PO15	1	2	1	2	2	3	2	2	3	3

Course Learning Outcomes/ Evaluation Method		
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
CLO1: Explain fundamental marketing concepts, customer value creation, and the role of marketing in organizational strategy.	Lectures, interactive discussion, concept presentations	Midterm Exam, Final Exam
CLO2: Analyze internal and external marketing environments using established frameworks (e.g., SWOT, PESTEL, competitor analysis).	Case studies, lecture, group analysis activities	Midterm Exam, Case Study Report
CLO3: Interpret consumer and business buyer behavior models and apply them to marketing decision-making processes.	Lectures, in-class exercises, group discussions	In-class Activities, Midterm Exam
CLO4: Develop customer value-driven marketing strategies, including segmentation, targeting, and positioning.	Workshops, case studies, group work	Project Report, Presentation
CLO5: Evaluate product, service, and brand strategies within the context of value creation.	Lectures, case analysis, seminar-style discussions	Final Exam, Case Study
CLO6: Assess new product development stages and apply product life cycle management tools.	Workshops, simulations, lecture	Project Assignment, Quiz
CLO7: Formulate pricing strategies based on cost, customer value, and market dynamics.	Lectures, numerical exercises, case studies	Quiz, Final Exam
CLO8: Examine customer relationship-building processes and propose strategies to enhance long-term engagement and loyalty.	Group work, lectures, case studies	Project Report, Participation
CLO9: Analyze and apply integrated marketing communication concepts to support customer engagement.	Interactive lectures, media analysis, group assignments	Presentation, In-class Activities

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Preparation for lectures	**15**	**1**	**15**
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**15**	**15**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**15**	**15**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**1**	**15**	**15**
Micro-Teaching Sessions	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**124**
ECTS Credit			**4**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	15	10
Laboratory	-	-
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	50
Total	**4**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Maritime English I							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
MEN201	II	Fall	3	4	3	0	0
Course type: Compulsory Elective				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				-	-	-	100
Course Venue and Time				Wednesday 09.30-12.20			
Instructor information				**Cpt. Caner Özbilgiç** Faculty of Maritime Studies Wednesday / 09:00 - 12:00 +90 (392) 650 26 00 / 4040 caner.ozbilgic@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	The *Maritime English* course is designed to develop students' ability to understand, use, and communicate effectively in English within the context of maritime operations. The course provides comprehensive instruction on the specialized vocabulary, expressions, and communication techniques used at sea and in ports, in compliance with the **IMO Standard Marine Communication Phrases (SMCP)** and international maritime conventions. Students will gain a solid command of English terminology related to ship structure, navigation, meteorology, cargo operations, safety, and emergency procedures. Emphasis is placed on both oral and written communication, including radio communication, ship documentation, and correspondence used in ship management, maintenance, and operations. Through interactive lessons, simulations, and practical exercises, students will enhance their listening, speaking, reading, and writing skills necessary for safe, efficient, and professional communication in multinational maritime environments. The course also introduces essential maritime legal, technical, and administrative English to prepare students for real-world maritime communication challenges.
Course Aims and Objectives	The primary aim of this course is to equip students with the linguistic competence and professional communication skills required for effective and safe operations in the maritime industry. The course seeks to familiarize students with international maritime terminology, documents, and communication practices in accordance with **IMO (International Maritime Organization)** standards. • To develop students' understanding and practical use of **maritime terminology** and expressions used on board ships and within port operations. • To enable students to **communicate accurately and efficiently** in English during daily operations, cargo handling, and navigation activities. • To improve students' ability to use **IMO Standard Marine Communication Phrases (SMCP)** in real-time communication and emergency situations. • To provide students with the necessary English skills to **understand, interpret, and complete** ship documentation and correspondence.

	• To enhance proficiency in **oral, written, and radio communication** used between ships, coastal stations, and maritime authorities. • To develop awareness of **safety procedures, emergency messages, and distress communications** in English. • To prepare students to work confidently and professionally in **multinational maritime environments**, promoting effective teamwork and intercultural communication.
Course Learning Outcomes	**CLO1:** Identify and use key maritime terminology related to ships, machinery, cargo operations, and navigation. **CLO2:** Communicate effectively in English during shipboard operations, including bridge, engine room, and port communications. **CLO3:** Interpret and apply IMO Standard Marine Communication Phrases (SMCP) in both routine and emergency maritime situations. **CLO4:** Understand and explain the structure, function, and classification of ships using appropriate technical maritime English. **CLO5:** Read, comprehend, and complete maritime documents such as logbooks, cargo records, reports, and inspection forms. **CLO6:** Apply English terminology related to marine safety, firefighting, meteorology, and environmental protection. **CLO7:** Demonstrate proficiency in written and oral maritime communication used in correspondence, reporting, and ship-to-shore messaging. **CLO8:** Recognize and use English terminology associated with maritime law, international regulations, and administrative procedures. **CLO9:** Respond appropriately to emergency, distress, and safety-critical situations using standardized maritime English communication formats. **CLO10:** Collaborate and communicate effectively in multinational maritime environments with crew members from diverse linguistic and cultural backgrounds.

Content of the Course

Week	*Subject*
1	**Introduction to Maritime English and Ship Classification** • Definition of a ship and its general characteristics • Classification of ships based on function and design • Basic ship measurements and tonnage concepts • General maritime terminology
2	**Ship Parts and Equipment Terminology** • Structural parts of the ship: hull, deck, superstructure, compartments • Cargo gear, hatches, pipelines, tanks • Anchoring equipment, mooring commands, and bridge terminology • Crew structure, duties, and shipboard organization
3	**Maritime Safety and Fire-Fighting Terminology** • Safety equipment and lifeboats • Fire-fighting equipment and safety procedures • English terminology used in drills and emergency training • Understanding SOLAS (Safety of Life at Sea) vocabulary
4	**Nautical Charts and Publications** • Basic map and chart terminology • Navigational publications: Notices to Mariners, corrections, and chart updates • English expressions used in voyage planning and chart reading
5	**Meteorology in Maritime English** • Meteorological terms and abbreviations used in weather reports • Recording weather and sea conditions in the ship's logbook • Understanding and interpreting weather forecasts
6	**Maritime Commerce and Shipping Business English** • Maritime trade and shipping operations terminology • Charter party agreements, INCOTERMS, and documentation • Time Sheets, Statements of Facts, and laytime calculation terminology
7	**Technical Management Terminology** • Classification societies and ship classification status • Survey schedules and maintenance planning • Ship documentation, certification, and compliance with regulations • Technical communication related to repairs and maintenance
8	**Midterm Examination and Review Session** • Written and oral assessment of terminology, ship systems, and communication practices
9	**Maritime Law and Administration English**

	• National and international maritime organizations (IMO, ILO, SOLAS, MARPOL) • Basic maritime law concepts: collision, salvage, and general average • Insurance terminology and port state control inspections
10	**Ship Documents and Cargo Documentation** • Ship certificates, port clearance documents, and cargo documentation • Bill of Lading, Cargo Manifest, Mate's Receipt • Understanding and completing maritime forms in English
11	**Maritime Records and Correspondence** • Ship's logbook entries, engine room log, cargo operations record • Formal and informal maritime correspondence • Writing protest letters and official communications
12	**Maintenance and Repair Terminology** • Maintenance planning and record-keeping • Dry-docking procedures and technical documentation • Fault reporting, damage assessment, and repair correspondence
13	**Survey and Inspection English** • Types of surveys: class, flag state, and port state inspections • Checklists, reporting procedures, and communication with surveyors • English expressions used during inspections and safety audits
14	**Communication and Emergency English** • IMO Standard Marine Communication Phrases (SMCP) • VHF communication between ship, shore, and VTS • Emergency and distress message formats • Multinational crew communication and bridge resource management
15	**Medical and Safety Communication English** • Medical terms for body parts, diseases, and first aid • Communicating medical emergencies at sea • Using medical sections of the International Code of Signals and the International Medical Guide for Ships • Final review and preparation for the final exam

Methods and Techniques used in the Course

Lectures and Interactive Discussions – Theoretical knowledge of maritime terminology, communication structures, and operational language is delivered through instructor-led sessions and class discussions.

Audio-Visual Learning – Use of multimedia tools such as maritime communication videos, ship operation recordings, and simulated distress calls to improve listening and comprehension skills.

Simulation and Role-Playing Exercises – Students participate in simulated shipboard and port communication scenarios (e.g., VHF radio exchanges, distress calls, cargo operation dialogues) to practice real-life communication.

Reading and Writing Exercises – Focused on technical manuals, maritime reports, log entries, and standard marine communication documents to enhance reading comprehension and technical writing proficiency.

Case Studies and Problem-Based Learning – Analysis of real maritime incidents and reports to develop critical thinking and communication strategies under operational and emergency conditions.

Group Work and Oral Presentations – Students collaborate on group assignments and deliver presentations related to ship operations, safety procedures, and maritime regulations.

Listening and Pronunciation Practice – Exercises emphasizing correct pronunciation, stress, and intonation of maritime English to ensure clarity in radio and onboard communication.

Vocabulary and Terminology Workshops – Intensive practice on specific maritime vocabulary including navigation, engineering, cargo handling, meteorology, and safety.

Use of IMO Standard Marine Communication Phrases (SMCP) – Regular drills and exercises to ensure familiarity and fluency in standardized maritime communication.

Assessment and Feedback Sessions – Continuous formative assessment through quizzes, oral evaluations, and peer feedback to monitor and improve students' performance throughout the semester.

Sample Questions

- Define the term **"Gross Tonnage"** and explain its significance in ship classification.
- What is the difference between **bulk carriers** and **container ships**?
- What are the main duties of the **Chief Engineer** and **Chief Officer** on board?
- Translate into English: "Gemi, fırtınalı havada demirlemede sorun yaşadı."
- List three **firefighting appliances** found on a ship.
- What are the differences between **lifeboats** and **life rafts**?
- Explain the meaning of **IMO Number** and its purpose.
- What does **VTS** stand for, and what is its role in maritime safety?
- Write three examples of **bridge communication commands** used during maneuvering.
- What is the function of the **bilge system** on board a vessel?
- Complete the sentence: "The _____ is responsible for the maintenance of the main engine."
- Define **"Class Society"** and give two examples.
- What kind of information can be found in the **Ship's Logbook**?
- What is the English term for "Deniz Haritası"?
- Translate the following phrase: "Prepare the vessel for dry docking."
- What are **INCOTERMS**, and why are they important in maritime trade?
- Explain briefly what **"Port State Control"** means.
- Fill in the blanks: "In case of fire on board, the crew must report to the _____ station immediately."

- Define **GMDSS** and list its main components.
- What are the primary types of **emergency messages** transmitted in maritime communication?
- What is the correct English phrase for sending a distress call according to **SMCP**?
- Explain the purpose of **IAMSAR Manual**.
- What is the difference between **Distress**, **Urgency**, and **Safety** messages?
- Fill in the blanks: "Mayday" is used for _____ situations, while "Pan-Pan" is used for _____ situations.
- What are the essential steps for **radio communication during an emergency**?
- What kind of information must be included in a **medical emergency report**?
- Define **Plagiarism** in the context of logbook or report writing.
- What are the safety measures during **fuel transfer operations**?
- Explain the function of the **emergency generator**.
- What is the importance of **standardized maritime terminology** in multi-national crews?
- Give examples of **communication breakdowns** that could lead to accidents.
- Briefly explain how **cultural and linguistic diversity** affects communication on ships.

Materials Used in the Course

Primary Textbooks

- *English for Maritime Studies* – Tony Grice, Cambridge University Press.
- *Maritime English: A Textbook for Seafarers* – Pritchard, Oxford Maritime Series.
- *SMCP (Standard Marine Communication Phrases)* – International Maritime Organization (IMO).

Supplementary Materials

- *Maritime English Handbook* – Peter Trenkner.
- *English for the Maritime Industry* – Virginia Evans & Jenny Dooley.
- *Nautical Dictionary and Glossary of Maritime Terms* – Capt. H. Black.

International Conventions and Official Documents

- *SOLAS (Safety of Life at Sea Convention)*
- *MARPOL (International Convention for the Prevention of Pollution from Ships)*
- *STCW (Standards of Training, Certification and Watchkeeping for Seafarers)*
- *COLREG (International Regulations for Preventing Collisions at Sea)*

Multimedia and Digital Resources

- IMO e-learning platform and digital SMCP simulator.
- Authentic **VHF radio communication recordings** and **ship bridge videos**.
- Interactive maritime terminology exercises (online platforms such as *MarTEL* and *Seagull LMS*).

Instructor-Prepared Materials

- Lecture slides and vocabulary lists for each week.
- Sample logbook pages, ship documents, and charter party examples.
- Case studies based on real maritime incidents and communications.

Practical Tools and Equipment

- VHF communication simulator.
- Ship plans, drawings, and technical manuals.
- Training charts, nautical publications, and meteorological reports.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
PO	**CLO1**	**CLO2**	**CLO3**	**CLO4**	**CLO5**	**CLO6**	**CLO7**	**CLO8**	**CLO9**	**CLO10**
PO1	3	3	3	3	3	3	3	2	3	3
PO2	2	3	3	2	3	3	3	2	3	3
PO3	2	2	3	3	2	2	3	3	3	3
PO4	1	2	2	2	2	2	2	2	2	2
PO5	3	3	3	3	3	3	3	2	3	3
PO6	1	2	2	1	2	2	2	2	2	2
PO7	1	1	1	1	1	1	1	1	2	3
PO8	1	1	1	1	1	1	1	1	1	1
PO9	1	1	1	1	2	1	2	2	2	2
PO10	1	2	2	2	2	2	2	2	2	3
PO11	1	1	1	1	1	1	1	1	1	2
PO12	1	1	1	1	1	1	1	1	1	1
PO13	1	1	2	3	3	2	1	1	1	3
PO14	1	1	2	3	3	2	1	1	1	3
PO15	1	1	2	3	3	2	1	1	1	3

Course Learning Outcomes/ Evaluation Method		
CLO	**Teaching Method**	**Assessment Method**
CLO1 – Key Maritime Terminology	Lecture, Multimedia Presentation, Vocabulary Exercises	Quizzes, Assignments, Participation
CLO2 – Effective Shipboard Communication	Role-Playing, Simulation, Group Activities	Observation, Oral Presentations, Practical Exercises
CLO3 – IMO SMCP Usage	Lecture, Scenario-Based Simulation, Case Studies	Assignments, Practical Exams, Quizzes
CLO4 – Ship Structure & Classification	Lecture, Diagrams, Technical Demonstrations	Quizzes, Written Exams, Assignments
CLO5 – Maritime Documentation	Lecture, Hands-on Document Practice, Tutorials	Assignments, Practical Exams, Quizzes
CLO6 – Marine Safety & Environmental Terms	Lecture, Case Studies, Practical Drills	Quizzes, Lab Reports, Practical Exercises
CLO7 – Written & Oral Communication	Workshops, Writing Exercises, Presentations	Written Reports, Oral Exams, Assignments
CLO8 – Maritime Law & Administrative Terminology	Lecture, Discussion, Case Studies	Quizzes, Written Exams, Assignments
CLO9 – Emergency & Distress Communication	Simulation, Role-Playing, Scenario-Based Learning	Practical Exams, Observation, Assignments
CLO10 – Multinational Crew Communication	Group Projects, Collaborative Activities, Simulation	Project Reports, Peer Evaluation, Observation

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Preparation for lectures	**15**	**1**	**15**
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**6**	**6**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**6**	**6**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**1**	**10**	**10**
Micro-Teaching Sessions	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**111**
ECTS Credit			**4**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	1	10
Laboratory	-	-
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	50
Total	**4**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Maritime Meteorology							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
MET201	II	Fall	2	6	1	2	0
Course type: Compulsory				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				50	-	-	50
Course Venue and Time				Monday / 09:30 – 11:20			
Instructor information				**Doç. Dr. Serkan Sancak** Faculty of Maritime Studies Wednesday / 09:00 - 12:00 +90 (392) 650 26 00 / 4060 serkan.sancak@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	This course provides students with a comprehensive understanding of meteorological concepts and their direct applications to maritime operations. It covers the structure and dynamics of the atmosphere, pressure and wind systems, cloud formation, precipitation, visibility, and weather forecasting. Emphasis is placed on the use of meteorological instruments onboard ships, interpretation of meteorological data, and the integration of weather information into safe navigation and voyage planning.
Course Aims and Objectives	• To introduce the fundamental principles of meteorology relevant to maritime operations. • To develop knowledge and skills in the use of meteorological instruments onboard ships. • To provide understanding of atmospheric structures, weather systems, and their effects on navigation. • To enable students to interpret, record, and report meteorological observations accurately. • To equip students with the ability to analyze and apply weather forecasts for safe and efficient voyage planning.
Course Learning Outcomes	**CLO1:** Identify and operate the key meteorological instruments used onboard ships accurately. **CLO2:** Explain the structure, composition, and fundamental physical characteristics of the atmosphere. **CLO3:** Interpret atmospheric pressure patterns, wind systems, cloud formations, precipitation, and visibility phenomena relevant to maritime navigation. **CLO4:** Understand and analyze pressure systems, including low-pressure areas, anticyclones, and associated weather patterns. **CLO5:** Utilize maritime weather services and effectively integrate weather forecasts into navigational decision-making. **CLO6:** Record, interpret, and report shipboard meteorological observations following international standards and protocols. **CLO7:** Apply meteorological knowledge to assess navigational safety and support voyage planning. **CLO8:** Analyze meteorological data to predict and respond to changing sea and weather conditions. **CLO9:** Demonstrate the ability to communicate weather-related information clearly to crew and officers for operational purposes. **CLO10:** Integrate theoretical and practical meteorology skills to make informed decisions in real-world maritime scenarios.

Content of the Course

Week	*Subject*
1	**Meteorological Instruments on Board Ships** • Introduction to meteorological observation tools used in maritime navigation. • Barometers, thermometers, hygrometers, anemometers, and their principles of operation. • Practical usage and calibration for accurate weather data collection. **English Maritime Terminology (**Meteorology in English**)** • Terms used in meteorological reports • Recording weather and sea conditions in the logbook
2	**Atmosphere: Structure and Physical Properties** • Composition of the atmosphere. • Vertical layers (troposphere, stratosphere, etc.) and their characteristics. • Thermal and dynamic processes affecting weather phenomena.
3	**Atmospheric Pressure** • Definition and measurement of air pressure. • Isobars and pressure distribution on weather charts. • Relation between pressure and weather changes.
4	**Wind Systems** • Formation and dynamics of wind. • Beaufort scale and practical wind estimation at sea. • Relation between pressure gradients and wind velocity/direction.
5	**Clouds and Precipitation** • Classification of clouds and their significance in weather forecasting. • Mechanisms of precipitation: rain, snow, hail, drizzle. • Observation techniques and reporting.
6	**Visibility at Sea** • Factors affecting visibility (fog, haze, precipitation, dust, etc.). • International definitions of visibility ranges for navigation. • Techniques for estimating and reporting visibility conditions.
7	**Winds and Pressure Systems over Oceans** • General circulation of the atmosphere over oceans. • Trade winds, westerlies, doldrums, and monsoon systems. • Their impact on maritime navigation and voyage planning.
8	**Structure of Low-Pressure Systems** • Cyclones: tropical and extratropical. • Structure, life cycle, and hazards for ships. • Identification on synoptic charts.
9	**Anticyclones and Other Pressure Systems** • High-pressure systems and their influence on maritime weather.

	• Fronts and frontal weather (warm front, cold front, occluded front). • Other systems: troughs, ridges, and convergence zones.
10	**Marine Meteorological Services** • Weather information services for mariners (NAVTEX, SafetyNET, VHF broadcasts). • Role of WMO (World Meteorological Organization) in maritime safety. • Use of weather charts and forecasts during navigation.
11	**Recording and Reporting Weather Observations** • Standard methods of recording shipboard weather observations. • Coding and transmission procedures (SHIP reports, SYNOP codes). • Importance of accurate data for global forecasting.
12	**Weather Forecasting Principles** • Basic techniques of meteorological forecasting. • Interpretation of synoptic charts and weather maps. • Practical forecasting methods for mariners.
13	**Applied Marine Meteorology** • Case studies of meteorological phenomena affecting ship navigation. • Decision-making based on meteorological data. • Voyage planning under varying weather conditions.
14	**Review and Integration** • General revision of all topics. • Practical exercises on weather chart analysis, observation reporting, and forecasting.
15	Final Exam

Methods and Techniques used in the Course

- Lectures and classroom discussions
- Demonstrations of meteorological instruments
- Case studies and problem-solving exercises
- Analysis of weather charts and bulletins
- Group assignments and presentations
- Simulation-based applications (where available)

Sample Questions

- Define atmospheric pressure and explain how it is measured on board a ship.
- List three meteorological instruments commonly used on ships and briefly describe their functions.
- What are the main differences between cyclones (low-pressure systems) and anticyclones (high-pressure systems)?
- Explain the term “visibility” in maritime meteorology and identify at least two factors that reduce visibility at sea.
- State the types of clouds associated with heavy rainfall and thunderstorms.
- Which of the following instruments is used to measure wind speed and direction?
  a) Barometer
  b) Anemometer
  c) Hygrometer
  d) Thermometer
- Which global wind system is most significant for ocean navigation near the equator?
  a) Westerlies
  b) Trade Winds
  c) Polar Easterlies
  d) Monsoon Winds
- A barometer reading suddenly drops from 1012 hPa to 996 hPa within a few hours.
  - What type of weather system is approaching?
  - What precautions should a ship’s officer take in navigation?
- A vessel sailing in the North Atlantic receives a weather chart showing an approaching low-pressure system with closely spaced isobars.
  - Explain the expected wind conditions.
  - Discuss how this might affect route planning and ship operations.
- Prepare a short weather observation log entry, including pressure, temperature, wind, visibility, and cloud cover, for a hypothetical voyage scenario.
- Discuss the importance of accurate meteorological observations in ensuring maritime safety.
- Explain how international weather services (e.g., NAVTEX, EGC, and meteorological bulletins) assist shipmasters in voyage planning.
- Evaluate the role of weather forecasting in preventing maritime accidents and improving operational efficiency.

Materials Used in the Course

Textbooks:

- Bowditch, N. The American Practical Navigator.
- Houghton, J. The Physics of Atmospheres.
- Admiralty Manual of Navigation (Meteorology Sections).

Supplementary Materials:

- IMO Model Course 7.03 (Officer in Charge of a Navigational Watch).
- Meteorological charts and weather bulletins (NAVTEX, EGC, etc.).
- Shipboard meteorological instruments and logbooks.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
PO	**CLO1**	**CLO2**	**CLO3**	**CLO4**	**CLO5**	**CLO6**	**CLO7**	**CLO8**	**CLO9**	**CLO10**
PO1	3	3	3	2	3	2	3	2	2	3
PO2	2	2	2	2	3	3	2	2	2	2
PO3	2	2	3	3	3	3	3	3	2	3
PO4	1	2	2	2	2	2	2	2	2	2
PO5	3	3	3	3	3	3	3	3	3	3
PO6	2	2	2	2	2	2	3	2	2	3
PO7	1	1	2	1	2	2	2	2	1	2
PO8	1	1	1	1	1	1	1	1	1	1
PO9	1	1	1	1	2	1	1	1	1	2
PO10	1	2	2	2	2	2	2	2	2	2
PO11	1	1	1	1	1	1	1	1	1	1
PO12	1	1	1	1	1	1	1	1	1	1
PO13	1	1	2	3	3	2	1	1	1	3
PO14	1	1	2	3	3	2	1	1	1	3
PO15	1	1	2	3	3	2	1	1	1	3

Course Learning Outcomes/ Evaluation Method		
CLO	**Teaching Method**	**Assessment Method**
CLO1 – Meteorological Instruments	Lecture, Demonstration, Hands-on Practice	Quizzes, Lab Reports, Practical Exams
CLO2 – Atmospheric Structure	Lecture, Multimedia Presentation, Case Studies	Quizzes, Assignments, Midterm Exam
CLO3 – Weather Phenomena Interpretation	Lecture, Group Discussions, Simulations	Quizzes, Assignments, Practical Exercises
CLO4 – Pressure Systems Analysis	Lecture, Case Studies, Simulation Exercises	Assignments, Midterm Exam, Practical Exams
CLO5 – Maritime Weather Services	Lecture, Tutorial, Simulation Exercises	Assignments, Quizzes, Practical Exercises
CLO6 – Meteorological Observations	Hands-on Practice, Lab Exercises, Demonstration	Lab Reports, Observation Checklists, Practical Exams
CLO7 – Navigational Safety Application	Scenario-Based Exercises, Group Work	Practical Exams, Project Reports, Assignments
CLO8 – Data Analysis & Prediction	Problem-Based Learning, Simulation, Case Studies	Assignments, Practical Exercises, Midterm Exam
CLO9 – Communication of Weather Information	Role-Playing, Group Exercises, Multimedia Presentation	Observation, Assignments, Quizzes
CLO10 – Integrated Meteorology Skills	Simulation, Scenario-Based Learning, Group Projects	Project Reports, Practical Exams, Assignments

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Preparation for lectures	**15**	**3**	**45**
Lectures	**15**	**1**	**15**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**8**	**8**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**10**	**10**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**5**	**4**	**20**
Individual Reading / Research	**10**	**2**	**20**
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**137**
ECTS Credit			**6**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	15	10
Laboratory	-	-
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	50
Total	**4**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Maritime Economics							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
MMD201	II	Fall	3	4	3	0	0
Department: Maritime Management							
Course type: Compulsory Elective				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				-	-	-	100
Course Venue and Time				Monday / 08:30 – 11:20			
Instructor information				**Hüseyin Meray** Faculty of Maritime Studies Wednesday / 09:00 – 12:00 +90 (392) 650 26 00 / 4040 huseyin.meray@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	*Maritime Economics* provides a comprehensive examination of the economic principles and market forces that shape the global maritime transport industry. The course analyzes how shipping markets operate, how freight rates are determined, and how demand and supply interact within various maritime sectors. Special emphasis is placed on the structure and behavior of competitive and non-competitive markets, the economics of ports and waterways, and the financial and operational decision-making processes involved in vessel management. Students will develop an understanding of voyage estimation, cost analysis, investment cycles, and the dynamics of newbuilding, secondhand, scrapping, and chartering markets. By integrating theory with real-world applications, the course equips students with the analytical tools needed to evaluate economic performance and strategic decisions within the maritime industry.
Course Aims and Objectives	The primary aim of *Maritime Economics* is to provide students with a solid theoretical and practical understanding of the economic principles governing the global maritime industry. The course seeks to develop the analytical skills necessary to interpret market behavior, evaluate financial performance, and make informed decisions within various shipping sectors. • **Introduce fundamental economic concepts** as they apply to maritime transport and global trade. • **Explain the structure and functioning of shipping markets**, including competitive and non-competitive market environments. • **Analyze demand and supply dynamics** specific to maritime transportation services. • **Examine freight rate formation** and price mechanisms in different shipping sectors. • **Develop an understanding of port, canal, and waterway economics** and their role within maritime logistics. • **Assess the contribution of the shipping industry to a country's economy**, focusing on balance of payments and national competitiveness. • **Provide tools for vessel financial analysis**, including cost accounting, cash flow management, and budget estimation. • **Teach students to perform voyage estimations** and compare profitability across different voyage scenarios. • **Explore investment cycles and market behavior** in the newbuilding, secondhand (S&P), scrapping, and chartering markets.

	• **Enhance decision-making skills** by connecting theoretical knowledge with real-world maritime economic challenges and trends.
Course Learning Outcomes	**LO1.** Explain fundamental economic principles and apply them to maritime transport and global trade. **LO2.** Analyze the derived demand for shipping and identify the factors influencing demand fluctuations. **LO3.** Evaluate the supply of shipping services, including short-run and long-run market responses. **LO4.** Interpret freight rate formation and assess how price mechanisms operate within maritime markets. **LO5.** Distinguish between competitive and non-competitive market structures in the shipping industry and explain their economic implications. **LO6.** Assess the economic functions of ports, canals, and waterways and their impact on maritime logistics and transport costs. **LO7.** Evaluate the role of the shipping industry in the national economy and its effect on a country's balance of payments. **LO8.** Perform vessel cost analysis, budgeting, and cash flow estimation for maritime operations. **LO9.** Conduct voyage estimation and compare alternative voyages based on economic criteria and profitability analysis. **LO10.** Analyze the dynamics of newbuilding, secondhand (S&P), scrapping, and chartering markets and interpret their interaction within maritime cycles.

Content of the Course

Week	*Subject*
1	**Introduction to Maritime Economics** • Definition, scope, and importance of maritime economics • The role of maritime transport in global trade • Economic characteristics of maritime services
2	**Factors of Production in Maritime Transportation** • Capital, labor, entrepreneurship, and technology in shipping • Fleet, ports, and infrastructure as economic inputs • The unique nature of maritime production functions
3	**Derived Demand for Shipping Services** • Demand as a function of international trade • Elasticity of demand in shipping • Factors influencing fluctuations in shipping demand
4	**Supply of Shipping Services** • Short-run vs. long-run supply • Fleet size, vessel availability, and lay-up decisions • Productivity and supply elasticity in shipping markets
5	**Price Mechanism in the Shipping Industry** • Freight rate formation • Market equilibrium: interaction of supply and demand • Price volatility and market adjustment mechanisms
6	**Competitive Markets in Shipping** • Perfect competition in maritime transport • Cost structure under competitive market conditions • Characteristics of highly competitive shipping segments
7	**Non-Competitive Markets in Shipping** • Oligopoly, monopoly, and monopolistic competition • Liner shipping conferences and alliances • Market power and pricing strategies
8	**Economics of Ports, Sea Canals, and Waterways** • Ports as economic nodes in maritime logistics • Canal transit economics (Suez, Panama, Turkish Straits, etc.) • Waterways and their impact on shipping costs and routing
9	**Shipping Industry and Balance of Payments of a Country** • Freight earnings as invisible exports • National fleet contribution to economic stability • Maritime transport and national competitiveness
10	**Vessel Cost Structure and Accounting Principles** • Fixed and variable costs (capital costs, operating costs, voyage costs) • Depreciation, financing, and interest costs • Ship budget estimation and financial planning
11	**Cash Flow Estimation and Financial Management of a Vessel** • Revenue forecasting • Cash flow cycles in shipping • Liquidity management and financial risk in maritime operations
12	**Voyage Estimation and Economic Comparison of Voyages** • Time–distance calculations • Port time vs. sea time • Freight calculations and profitability ranking between voyage options
13	**Newbuilding Market Economics** • Factors affecting newbuilding orders • Shipyard capacity and price dynamics

	• Investment evaluation and timing cycles
14	**Sale & Purchase (S&P), Scrapping, and Chartering Markets** • Secondhand vessel pricing and market determinants • Scrapping economics and demolition markets • Interaction between S&P, newbuilding, and chartering markets
15	**Course Review and Final Exam** • Comprehensive review of key topics • Preparation for final assessment • FINAL EXAM

Methods and Techniques used in the Course

Lectures and Theoretical Instruction

- Presentation of core concepts, economic models, and market structures.
- Use of visual aids, diagrams, and real-world industry data.

Case Studies and Applied Problem-Solving

- Analysis of real shipping markets, freight rate behaviors, port economics, and vessel operations.
- Examination of historical and contemporary maritime economic scenarios.

Practical Exercises and Calculations

- Voyage estimation calculations
- Cost analysis and budgeting exercises
- Market comparison and economic evaluation tasks

Class Discussions and Interactive Sessions

- Debates on maritime market developments
- Collaborative interpretation of supply–demand dynamics
- Critical assessment of industry trends

Industry Reports and Research-Based Learning

- Use of market reports (Clarksons, BIMCO, UNCTAD, OECD, etc.)
- Student engagement with current economic indicators and market forecasts

Group Projects and Presentations

- Team-based studies on shipping markets, port economics, or vessel financial performance
- Development of analytical and communication skills

Simulation-Based Learning (If available)

- Freight market simulations
- Chartering scenario simulations
- Supply–demand modeling exercises**Assignments and Independent Study**
- Weekly readings to reinforce lecture topics
- Individual problem-solving and data analysis tasks

Sample Questions

- **Define derived demand in the context of maritime transport.**
  Explain how fluctuations in global trade affect the demand for shipping services.
- **Discuss the main factors influencing the supply of shipping services.**
  Compare short-run and long-run supply responsiveness in the shipping industry.
- **Explain how freight rates are determined.**
  Illustrate the interaction of supply and demand in setting freight prices in competitive markets.
- **Identify and compare the characteristics of competitive and non-competitive market structures** within the maritime industry. Provide examples for each.
- **Analyze the economic role of ports and canals** in international shipping and describe how they influence transport costs and route selection.
- **Evaluate the impact of the shipping industry on a country's balance of payments.**
  Why are freight earnings referred to as "invisible exports"?
- **List and explain the major cost components involved in vessel operations.**
  How do fixed and variable costs influence the economic performance of a ship?
- **Perform a basic voyage estimation.**
  Given freight rate, bunker cost, port charges, and voyage duration, determine whether a specific voyage is economically viable.
- **Discuss the main factors affecting the newbuilding market.**
  Explain how shipyard capacity and global economic cycles influence newbuilding prices.
- **Explain the relationship between the newbuilding, secondhand, scrapping, and chartering markets.**
  How do changes in one market affect the others?

Materials Used in the Course

Primary Textbooks

- **Stopford, Martin** — *Maritime Economics*, 2nd Edition, Routledge, 2009.
- **Grammenos, Costas (Ed.)** — *The Handbook of Maritime Economics and Business*, 2nd Edition, Routledge, 2010.
- **Branch, Alan E.** — *Economics of Shipping Practice and Management*, 2nd Edition, Springer, 2007.

Recommended References

- **Karakitsos, Elias & Varnavides, Lambros** — *Maritime Economics: A Macroeconomic Approach*, Springer, 2015.
- **Ma, Shuo** — *Economics of Maritime Business*, Routledge, 2019.
- **UNCTAD** — *Review of Maritime Transport*, Annual Reports.
- **Clarksons Research Reports**

Supplementary Learning Materials

- **Academic Journals**
- **Industry Data Sources**
- **Case Studies & Real-World Examples**
- **Simulation Tools (if available)**
- **Online Resources**

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes / Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
	LO1	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	**LO7**	**LO8**	**LO9**	**L10**
PO1	3	3	2	2	2	1	3	2	2	2
PO2	3	3	3	2	2	1	2	1	2	1
PO3	2	3	1	3	3	2	1	3	1	1
PO4	2	2	1	2	3	3	2	2	2	2
PO5	1	2	2	1	1	2	2	2	3	3
PO6	1	2	1	2	1	1	2	3	2	2
PO7	1	1	1	1	1	3	2	2	3	3
PO8	1	1	3	1	1	1	2	1	2	1
PO9	1	1	2	1	1	1	1	1	2	2
PO10	2	2	1	2	3	3	2	2	2	2
PO11	1	2	2	1	1	2	2	2	3	3
PO12	1	2	1	2	1	1	2	3	2	2
PO13	3	3	3	2	2	1	2	1	2	1
PO14	2	3	1	3	3	2	1	3	2	2
PO15	1	2	1	2	2	3	2	2	3	3

Course Learning Outcomes/ Evaluation Method		
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
LO1. Explain fundamental economic principles and their application to maritime transport.	Lectures, Case Studies	Midterm Exam, Final Exam
LO2. Analyze the derived demand for shipping and identify factors influencing demand fluctuations.	Lectures, Market Data Analysis	Quizzes, Assignments
LO3. Evaluate the supply of shipping services, including short-run and long-run responses.	Lectures, Scenario Analysis	Midterm Exam, Assignments
LO4. Interpret freight rate formation and assess price mechanisms in maritime markets.	Lectures, Problem-Solving Exercises	Quizzes, Final Exam
LO5. Distinguish between competitive and non-competitive market structures and their implications.	Lectures, Case Studies	Midterm Exam, Participation
LO6. Assess the economic functions of ports, canals, and waterways and their impact on transport costs.	Lectures, Case Studies	Assignments, Final Exam
LO7. Evaluate the role of the shipping industry in a country's balance of payments.	Lectures, Discussions	Quizzes, Written Assignments
LO8. Perform vessel cost analysis, budgeting, and cash flow estimation.	Practical Exercises, Spreadsheets	Assignments, Midterm Exam
LO9. Conduct voyage estimation and compare alternative voyages based on economic criteria.	Practical Exercises, Case Studies	Assignments, Quizzes

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Preparation for lectures	**15**	**1**	**15**
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**10**	**10**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**20**	**20**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	-	-	-
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**1**	**20**	**20**
Micro-Teaching Sessions	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**114**
ECTS Credit			**4**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	15	10
Laboratory	-	-
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	50
Total	**4**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Supply Chain Management							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
MMD203	II	Fall	3	4	3	0	0
Course type: Compulsory				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				-	-	-	100
Course Venue and Time				Friday / 08:30 – 11:20			
Instructor information				**Assist. Prof. Dr. Pınar Sharghi** Faculty of Maritime Studies Wednesday / 09:00 - 12:00 +90 (392) 650 26 00 / 4120 pinar.sharghi@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	The course *Supply Chain Management* provides students with a comprehensive understanding of how global supply chains are structured, operated, and optimized, with a special emphasis on the maritime and port logistics sectors. It explores the key components of supply chain systems—including procurement, production, warehousing, transportation, and distribution—and examines how these processes interact within international trade networks. Students will analyze the pivotal role of maritime transportation, ports, and logistics service providers in sustaining global supply chain efficiency. The course also covers modern challenges such as digitalization, sustainability, supply chain disruptions, and the increasing demand for resilience in global logistics. Real-world maritime case studies, industry tools, and contemporary strategies are integrated throughout the course to prepare students for decision-making roles in the maritime business environment.
Course Aims and Objectives	The primary aim of this course is to equip students with the knowledge and analytical skills necessary to understand, design, and manage efficient and resilient supply chains within the global maritime logistics environment. The course integrates theoretical foundations with practical maritime applications to develop competencies required in modern logistics and shipping industries. • **Understand the structure and functions of global supply chains**, with a focus on the role of maritime transportation and ports. • **Analyze the interactions between suppliers, manufacturers, logistics providers, and customers** within integrated supply chain networks. • **Evaluate key logistics processes**, including procurement, inventory management, warehousing, transportation, and distribution. • **Examine the strategic importance of maritime shipping, containerization, and port operations** in global supply chain performance. • **Assess supply chain risks and vulnerabilities**, including disruptions in shipping, port congestion, and market fluctuations. • **Apply supply chain optimization tools and techniques**, such as forecasting, demand planning, and network design. • **Interpret the impact of digitalization**, including big data, automation, blockchain, and smart port technologies on supply chain efficiency. • **Understand sustainability and green logistics practices**, including carbon reduction strategies and eco-efficient maritime operations. • **Develop strategies for improving supply chain agility, resilience, and competitiveness** in the maritime sector.

	• **Use real-world maritime supply chain case studies** to enhance decision-making and problem-solving skills.
Course Learning Outcomes	**LO1 — Fundamental Concepts** Explain the fundamental concepts, components, and functions of supply chain management within global trade. **LO2 — Maritime Supply Chain Role** Describe the role and importance of maritime transportation, ports, terminals, and shipping companies within global supply chain networks. **LO3 — Supply Chain Process Integration** Analyze procurement, production, inventory management, warehousing, and distribution processes and how these processes integrate across the supply chain. **LO4 — Demand Forecasting & Planning** Apply demand forecasting, planning, and scheduling techniques to improve efficiency and alignment across supply chain functions. **LO5 — Supply Chain Network Design** Design and interpret supply chain network models, including routing, mode selection, distribution channels, and maritime logistics flows. **LO6 — Costing & Financial Evaluation** Evaluate supply chain costs, pricing strategies, and financial performance indicators relevant to maritime logistics operations. **LO7 — Risk & Disruption Management** Identify potential risks and disruptions—including port congestion, geopolitical tensions, supply shortages, weather events—and propose mitigation strategies. **LO8 — Technology & Digitalization** Assess the role of digital tools and innovations (blockchain, IoT, AI, big data, automation, smart ports) in improving supply chain visibility and operational efficiency. **LO9 — Sustainability & Green Logistics** Explain sustainability principles, green logistics practices, emissions regulations, and environmental management strategies in global and maritime supply chains. **LO10 — Managerial Decision-Making & Problem-Solving** Use analytical and critical thinking skills to propose solutions for real-world supply chain problems and make effective managerial decisions.

Content of the Course

Week	*Subject*
1	**Introduction to Supply Chain Management** • Definition, scope, and importance of SCM • Supply chain actors and flows (materials, information, finance) • SCM in global and maritime industries
2	**Supply Chain Structures and Models** • Supply chain types (lean, agile, hybrid) • Port-centric and maritime supply chains • Network design concepts
3	**Logistics and Supply Chain Integration** • Relationship between logistics and SCM • Integrated logistics systems • Maritime logistics integration in global trade
4	**Demand Planning and Forecasting** • Demand forecasting methods • Inventory implications in maritime logistics • Forecasting challenges in volatile shipping markets
5	**Procurement and Supplier Relationship Management** • Strategic sourcing • Supplier selection and evaluation • Maritime procurement processes (fuel, spare parts, port services)
6	**Inventory and Warehousing Management** • Inventory models (EOQ, safety stock, JIT) • Port and terminal warehousing operations • Cold chain logistics and special cargo considerations
7	**Transportation Management in Supply Chains** • Modal comparison: sea, road, rail, air • Freight management and routing • Multimodal and intermodal transport systems
8	**Maritime Transport and Port Operations in SCM** • Role of maritime transport in global supply chains • Port functions, bottlenecks, and competitiveness • Integration of ports with hinterland logistics
9	**Global Supply Chain Strategies** • Outsourcing, offshoring, and reshoring • Global trade patterns and risks • Role of shipping alliances and logistics service providers
10	**Technology and Digitalization in Supply Chains** • IoT, AI, blockchain, digital twins

	• Supply chain visibility and tracking systems • Maritime digital platforms (Port Community Systems, Single Window)
11	**Risk Management in Global Supply Chains** • Disruptions: pandemics, conflicts, port closures • Maritime shipping risks (accidents, piracy, congestion) • Building resilient supply chains
12	**Sustainable and Green Supply Chains** • Environmental regulations in shipping (IMO, EU) • Green logistics strategies • Carbon footprint measurement and reduction
13	**Performance Measurement and KPIs** • Supply chain metrics (cost, time, service level, reliability) • Port performance indicators • Balanced Scorecard and continuous improvement
14	**Case Studies in Maritime Supply Chain Management** • Real-world analyses (Maersk, MSC, major ports) • Best practices and failures • Group presentations and discussions
15	**Course Review and Final Exam Preparation** • Revision of key concepts • Integrated supply chain scenario exercises • **Final Examination**

Methods and Techniques used in the Course

Lectures & Theoretical Instruction

- Instructor-led presentations on key concepts, frameworks, and supply chain models.
- Use of real-world maritime logistics examples, case notes, and industry updates.

Case Studies (Maritime & Logistics Focused)

- Analysis of real supply chain disruptions, port operations, carrier alliances, and logistics failures.
- Group discussion of case results and managerial decision-making.

Interactive Class Discussions

- Debates on current developments in global supply chains, shipping markets, and sustainability trends.
- Problem-solving sessions encouraging critical thinking.

Practical Exercises & Problem-Solving Sessions

- Demand forecasting exercises
- Network design calculations
- Cost analysis workshops
- Risk assessment simulations

Supply Chain Simulation Tools (If available)

- Digital supply chain games
- Port operations simulation
- Transportation route optimization tools

Video Demonstrations & Industry Examples

- Videos from port operations, warehousing systems, automation technologies, and maritime logistics platforms.
- Documentaries on global shipping, supply chain disruptions, and digital ports.

Group Projects & Collaborative Learning

- Team-based supply chain model development
- Case-based presentations
- Problem-based learning oriented to real logistics scenarios

Guest Lectures from Industry Professionals

- Port managers, ship operators, freight forwarders, and logistics technology experts.
- Sharing current trends, challenges, and technological innovations.

Research Assignment & Report Preparation

- Students investigate a supply chain topic (global or maritime-focused).
- Emphasis on academic research and applied industry insight.

Field Visits (If applicable)

- Visits to ports, warehouses, logistics centers, or maritime agencies for practical observation.

Sample Questions

Short Answer / Conceptual Questions

- Define the term *supply chain management* and explain its relevance in the maritime industry.
- What is the difference between logistics and supply chain management?
- Explain the role of port terminals in global supply chains.
- What is lead time? How does it affect overall supply chain performance?
- Describe the bullwhip effect and provide an example relevant to maritime logistics.

Long Answer / Analytical Questions

- Discuss the main factors influencing the efficiency of maritime transportation within global supply chains.
- Analyze how digitalization (e.g., IoT, blockchain, AIS data) is transforming supply chain visibility in the shipping sector.
- Evaluate the impact of supply chain disruptions (such as pandemics, port congestion, or geopolitical risks) on maritime operations.

Calculation / Problem-Solving Questions

- A shipping company must transport 12,000 TEUs within 6 months. The company's vessels have capacities of 1,500 TEUs per voyage. How many voyages are required, and what scheduling challenges might arise?
- A warehouse processes 4,500 units per day. If demand increases to 6,200 units, calculate the capacity gap and propose operational strategies to meet the new demand.

Case-Based Questions

- A port terminal is experiencing congestion due to increased container arrivals. Identify the possible causes and suggest strategies to improve throughput.
- A global retailer collaborates with a maritime carrier to reduce carbon emissions in its supply chain. What operational changes could both parties implement?

Multiple Choice Questions (MCQ)

- Which of the following is a key component of supply chain integration?
  a) Increased paperwork
  b) Information sharing
  c) Reducing communication
  d) Increasing stockouts
- Which transportation mode has the lowest cost per ton-mile?
  a) Air
  b) Road
  c) Rail
  d) Maritime
- What does *Just-in-Time (JIT)* primarily aim to reduce?
  a) Inventory levels
  b) Transportation cost
  c) Employee turnover
  d) Port tariffs

Materials Used in the Course

Core Learning Materials

- **Lecture Slides & Presentations:**
  Weekly slides prepared by the instructor covering theoretical concepts, maritime-focused supply chain processes, case studies, and analytical models.
- **Course Textbook Chapters:**
  Selected chapters from primary textbooks on supply chain management, logistics, and maritime operations.
- **Instructor Notes & Handouts:**
  Supplementary explanations, formula sheets, process diagrams, and summary notes provided for key topics such as forecasting, inventory management, transport optimisation, and port logistics.

Digital & Multimedia Resources

- **Interactive Digital Models:**
  Supply chain flow simulations, port operations animations, vessel scheduling visualizations.
- **Online Learning Platform Resources (LMS):**
  - Lecture recordings
  - Weekly quizzes
  - Discussion forums
  - Case study datasets
  - Assignment submissions & feedback
- **Industry Videos & Webinars:**
  - Terminal operations videos
  - Maritime supply chain digitalisation webinars
  - Guest lectures from port authorities, ship operators, and logistics firms

Case Studies and Real-World Data

- **Maritime Industry Case Studies:**
  - Port congestion events
  - Supply chain disruptions (pandemic, geopolitical conflict, Suez Canal blockage)
  - Shipping line scheduling performance
  - Intermodal logistics efficiency
- **Operational Data Sets:**
  Real or simulated data for:
  - TEU flows
  - Vessel turnaround times
  - Inventory calculations
  - Demand forecasting exercises
  - Port throughput analysis

Software and Analytical Tools

- **Spreadsheet Tools:**
  Microsoft Excel / Google Sheets for modelling, forecasting, and optimisation.
- **Analytics & Visualization Tools:**
  - Power BI or Tableau (optional)
  - Basic Python notebooks (optional, for students with interest in analytics)
- **Supply Chain Simulation Tools:**
  Simple simulation models or open-source tools demonstrating network flow, scheduling, and resource allocation.

Recommended Readings & Academic Resources

- Peer-reviewed journal articles from:
  - *Maritime Policy & Management*
  - *International Journal of Logistics Management*
  - *Journal of Supply Chain Management*
  - *Transportation Research Part E*
- Reports from relevant organizations:
  - IMO
  - UNCTAD
  - World Bank
  - Major port authorities and shipping alliances

Fieldwork and Practical Materials

- **Port Visit Observations (if applicable):**
  Students may conduct structured observation tasks at nearby ports or marinas.
- **Guest Speaker Materials:**
  Presentations, reports, and working documents shared by industry professionals.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
	LO1	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	**LO7**	**LO8**	**LO9**	**L10**
PO1	3	3	2	2	2	1	3	2	2	2
PO2	3	3	3	2	2	1	2	1	2	1
PO3	2	3	1	3	3	2	1	3	1	1
PO4	2	2	1	2	3	3	2	2	2	2
PO5	1	2	2	1	1	2	2	2	3	3
PO6	1	2	1	2	1	1	2	3	2	2
PO7	1	1	1	1	1	3	2	2	3	3
PO8	1	1	3	1	1	1	2	1	2	1
PO9	1	1	2	1	1	1	1	1	2	2
PO10	2	2	1	2	3	3	2	2	2	2
PO11	1	2	2	1	1	2	2	2	3	3
PO12	1	2	1	2	1	1	2	3	2	2
PO13	3	3	3	2	2	1	2	1	2	1
PO14	2	3	1	3	3	2	1	3	2	2
PO15	1	2	1	2	2	3	2	2	3	3

Course Learning Outcomes/ Evaluation Method		
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
CLO1: Explain fundamental concepts, structures, and functions of supply chain management.	Lectures, visual presentations	Midterm exam, quizzes
CLO2: Analyse the components of maritime-related supply chains including ports, shipping lines, terminals, and intermodal systems.	Case studies, videos, class discussions	Midterm exam, case study report
CLO3: Evaluate supply chain strategies related to procurement, production, inventory, and distribution in maritime industries.	Problem-solving sessions, sample scenarios	Midterm exam, homework assignments
CLO4: Apply demand forecasting and inventory management techniques using analytical tools.	Hands-on exercises, Excel modelling tutorials	Practical assignment, quizzes
CLO5: Assess transportation, routing, and scheduling decisions for maritime and multimodal networks.	Simulation activities, scenario-based learning	Project work, practical exam
CLO6: Interpret supply chain data to support decision-making using basic quantitative methods.	Data analysis workshops, LMS-based activities	Practical assignments, final project
CLO7: Identify and evaluate risks and disruptions in global supply chains, especially in maritime contexts.	Case studies, group discussions	Case study analysis, midterm
CLO8: Develop sustainable and resilient supply chain strategies aligned with environmental and regulatory requirements.	Research tasks, reading seminars	Research report, presentation
CLO9: Demonstrate effective teamwork and communication skills in solving supply chain problems.	Group work, collaborative projects	Group project evaluation
CLO10: Integrate supply chain management concepts to create holistic solutions for real-world maritime logistics scenarios.	Capstone project, problem-based learning	Final exam, final project

ECTS / Workload Table

Activities	Number	Duration (Hours)	Total Workload
Preparation for lectures	-	-	-
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**15**	**15**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**15**	**15**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	**15**	**2**	**30**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**1**	**15**	**15**
Micro-Teaching Sessions	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**124**
ECTS Credit			**4**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	15	10
Laboratory	-	-
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	50
Total	**4**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Blue Economy and Innovation							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
MMD207	II	Fall	3	3	3	0	0
Course type: Elective				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				-	-	-	100
Course Venue and Time				Monday / 13:30 – 16:20			
Instructor information				**Dr. Gökhan Tarı** Faculty of Maritime Studies Wednesday / 09:00 – 12:00 +90 (392) 650 26 00 / 4040 gokhan.tari@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	*Blue Economy and Innovation* introduces students to the concepts, principles, and practices of the blue economy, emphasizing sustainable and innovative use of marine and maritime resources. The course explores economic, environmental, and social dimensions of the blue economy, covering sectors such as shipping, ports, fisheries, aquaculture, marine energy, and maritime tourism. Students will examine emerging technologies, digitalization, and innovative strategies that promote sustainability, efficiency, and competitiveness in maritime industries. Through case studies, practical exercises, and project work, students develop the skills to assess, design, and implement innovative solutions that support sustainable maritime growth and resilient coastal development.
Course Aims and Objectives	The aim of *Blue Economy and Innovation* is to provide students with an in-depth understanding of the sustainable development of maritime resources and the application of innovative technologies and strategies in the maritime sector. • Introduce the concept and principles of the blue economy and its relevance to sustainable maritime development. • Examine the economic, environmental, and social dimensions of maritime industries and coastal resources. • Explore global policies, governance frameworks, and international regulations that support the blue economy. • Analyze the sustainable exploitation of marine resources, including fisheries, aquaculture, and marine biotechnology. • Evaluate the role of shipping, ports, and maritime logistics in the blue economy. • Understand and apply emerging technologies and digital innovations in maritime operations. • Examine renewable marine energy systems and innovative coastal infrastructure solutions. • Investigate sustainable maritime tourism, recreation, and eco-friendly practices. • Apply circular economy and waste management principles in maritime contexts. • Develop practical solutions and project proposals that enhance sustainability and innovation in maritime management.
	LO1. Explain the fundamental concepts, principles, and importance of the blue economy. **LO2.** Analyze the economic, environmental, and social dimensions of sustainable maritime and coastal development.

Course Learning Outcomes	**LO3.** Evaluate global policies, governance frameworks, and international regulations supporting the blue economy. **LO4.** Assess the sustainable exploitation and management of marine resources, including fisheries, aquaculture, and biotechnology. **LO5.** Examine the role of shipping, ports, and maritime logistics in promoting sustainable economic growth. **LO6.** Apply innovative technologies, digital tools, and smart solutions in maritime operations and resource management. **LO7.** Analyze renewable marine energy systems and evaluate their implementation in maritime and coastal infrastructure. **LO8.** Design sustainable maritime tourism and recreational practices minimizing environmental impact. **LO9.** Integrate circular economy principles and marine waste management strategies in maritime industries. **LO10.** Develop practical projects and strategies to enhance sustainability, innovation, and resilience in maritime management.

Content of the Course

Week	*Subject*
1	**Introduction to Blue Economy** • Definition and concept of the Blue Economy • Historical development and global significance • Relation to sustainable maritime and coastal development
2	**Principles and Dimensions of the Blue Economy** • Economic, social, and environmental dimensions • Sustainable resource management • Key sectors: fisheries, aquaculture, shipping, ports, marine energy
3	**Global Policies and Governance of Blue Economy** • United Nations Sustainable Development Goals (SDG 14) • International conventions and maritime governance frameworks • Regional and national strategies for Blue Economy development
4	**Marine Resources and Sustainable Exploitation** • Renewable and non-renewable marine resources • Sustainable fisheries, aquaculture, and marine biotechnology • Resource management and environmental considerations
5	**Maritime Transport and Blue Economy** • Role of shipping and ports in supporting Blue Economy • Sustainable shipping and logistics practices • Blue economy opportunities in maritime trade
6	**Innovation in Maritime Industries** • Emerging technologies: digitalization, automation, and smart shipping • Green shipping technologies and energy efficiency • Innovation management in maritime companies
7	**Marine Renewable Energy** • Offshore wind, tidal, wave, and solar energy • Technology, infrastructure, and economic feasibility • Environmental impacts and sustainability considerations
8	**Maritime Tourism and Recreation** • Cruise tourism, yachting, and coastal recreational activities • Economic benefits and environmental risks • Sustainable tourism strategies
9	**Ocean Governance and Policy Instruments** • Marine spatial planning and maritime zoning • Regulatory frameworks for marine resource use • Stakeholder engagement and public-private partnerships
10	**Financing and Investment in Blue Economy** • Public and private investment models

	• Risk management and insurance in maritime innovation • Funding sustainable maritime projects
11	**Digitalization and Smart Technologies for Blue Economy** • IoT, AI, and Big Data in maritime industries • Smart ports, automated shipping, and digital monitoring of marine resources • Case studies on digital innovation
12	**Innovation in Coastal and Port Management** • Sustainable port development and green infrastructure • Smart terminal operations and logistics innovation • Eco-friendly technologies for port and coastal management
13	**Circular Economy and Marine Waste Management** • Marine pollution, plastics, and waste management • Circular economy principles applied to maritime sectors • Innovative solutions for reducing ecological footprint
14	**Case Studies and Best Practices in Blue Economy** • Successful examples from global maritime industries • Lessons learned from innovative projects and sustainable initiatives • Discussion on replicable strategies
15	**Course Review and Final Assessment** • Summary of concepts, trends, and innovations • Student presentations on Blue Economy projects • **Final Exam**

Methods and Techniques used in the Course

Lectures and Theoretical Instruction

- Presentation of fundamental concepts of blue economy, sustainability, and innovation.
- Use of multimedia tools to illustrate case studies and real-world applications.

Case Studies and Industry Examples

- Analysis of successful projects in sustainable maritime industries, ports, shipping, and marine energy.
- Lessons learned from global and regional initiatives.

Practical Exercises and Group Work

- Development of project proposals for sustainable maritime operations.
- Problem-solving exercises focused on marine resource management and innovation strategies.

Class Discussions and Debates

- Critical discussions on policy frameworks, governance, and environmental challenges.
- Exchange of ideas on emerging trends and best practices in blue economy sectors.

Guest Lectures and Industry Insights

- Presentations from experts in maritime innovation, port management, and marine energy.
- Real-life insights into the challenges and opportunities of the blue economy.

Research and Independent Study

- Literature reviews, policy analysis, and innovation strategy studies.
- Preparation of reports and assignments addressing sustainable maritime solutions.

Digital Tools and Simulation Exercises

- Use of software and digital platforms for monitoring marine resources, simulating maritime logistics, and evaluating environmental impact.

Project-Based Learning

- Group projects focusing on innovative solutions for maritime sustainability.
- Application of theory to practical scenarios in maritime management.

Sample Questions

- Define the concept of the blue economy and explain its significance for sustainable maritime development.
- Identify and discuss the economic, environmental, and social dimensions of the blue economy.
- Explain the role of international policies and governance frameworks in supporting sustainable maritime industries.
- Analyze the sustainable management of marine resources, such as fisheries, aquaculture, and marine biotechnology.
- Discuss how shipping, ports, and maritime logistics contribute to the blue economy.
- Describe innovative technologies and digital solutions that enhance sustainability and efficiency in maritime operations.
- Evaluate the potential of marine renewable energy systems, such as offshore wind and tidal power, for sustainable maritime development.
- Propose strategies for sustainable maritime tourism that minimize environmental impact.
- Explain the principles of circular economy and marine waste management in the context of maritime industries.
- Develop a brief project plan or strategy that integrates innovation and sustainability in maritime management.

Materials Used in the Course

Primary Textbooks

- **Blue Economy: 10 Years, 10 Opportunities, 100 Innovations** – Gunter Pauli, 2010.
- **Talley, Wayne K.** – *Maritime Logistics: A Guide to Contemporary Shipping and Port Management*, 2nd Edition, Kogan Page, 2013.
- **Stopford, Martin** – *Maritime Economics*, 3rd Edition, Routledge, 2009.

Recommended References

- **United Nations – Sustainable Development Goal 14: Life Below Water**
- **OECD – *The Ocean Economy in 2030***
- **Academic Journals**
- **Industry Reports**

Supplementary Learning Materials

- **Case Studies**

Successful projects in maritime innovation, sustainable ports, and marine energy initiatives.

- **Practical Exercises and Simulations**

Scenario-based exercises for sustainable maritime operations and innovation strategy design.

- **Digital Tools and Platforms**

Applications for monitoring marine resources, simulating logistics, and evaluating environmental impact.

- **Videos and Webinars**

Presentations on blue economy innovations, sustainable shipping, and marine technology trends.

- **Policy and Regulatory Documents**

International conventions, national strategies, and local policies on sustainable maritime development.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
	LO1	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	**LO7**	**LO8**	**LO9**	**L10**
PO1	3	3	2	2	2	1	3	2	2	2
PO2	3	3	3	2	2	1	2	1	2	1
PO3	2	3	1	3	3	2	1	3	1	1
PO4	2	2	1	2	3	3	2	2	2	2
PO5	1	2	2	1	1	2	2	2	3	3
PO6	1	2	1	2	1	1	2	3	2	2
PO7	1	1	1	1	1	3	2	2	3	3
PO8	1	1	3	1	1	1	2	1	2	1
PO9	1	1	2	1	1	1	1	1	2	2
PO10	2	2	1	2	3	3	2	2	2	2
PO11	1	2	2	1	1	2	2	2	3	3
PO12	1	2	1	2	1	1	2	3	2	2
PO13	3	3	3	2	2	1	2	1	2	1
PO14	2	3	1	3	3	2	1	3	2	2
PO15	1	2	1	2	2	3	2	2	3	3

Course Learning Outcomes/ Evaluation Method		
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
LO1. Explain the fundamental concepts, principles, and importance of the blue economy.	Lectures, Case Studies	Quizzes, Short Assignments
LO2. Analyze the economic, environmental, and social dimensions of sustainable maritime and coastal development.	Lectures, Discussions, Case Studies	Assignments, Participation
LO3. Evaluate global policies, governance frameworks, and international regulations supporting the blue economy.	Lectures, Guest Lectures, Group Discussions	Case Study Reports, Quizzes
LO4. Assess the sustainable exploitation and management of marine resources, including fisheries, aquaculture, and biotechnology.	Practical Exercises, Group Work	Assignments, Project Reports
LO5. Examine the role of shipping, ports, and maritime logistics in promoting sustainable economic growth.	Lectures, Case Studies	Assignments, Quizzes
LO6. Apply innovative technologies, digital tools, and smart solutions in maritime operations and resource management.	Practical Exercises, Demonstrations	Project Work, Practical Reports
LO7. Analyze renewable marine energy systems and evaluate their implementation in maritime and coastal infrastructure.	Lectures, Case Studies	Assignments, Case Study Reports
LO8. Design sustainable maritime tourism and recreational practices minimizing environmental impact.	Group Work, Discussions	Project Reports, Presentations
LO9. Integrate circular economy principles and marine waste management strategies in maritime industries.	Lectures, Practical Exercises	Assignments, Project Reports
LO10. Develop practical projects and strategies to enhance sustainability, innovation, and resilience in maritime management.	Project-Based Learning, Group Work	Final Project, Presentation, Final Exam

ECTS / Workload Table

Activities	Number	Duration (Hours)	Total Workload
Preparation for lectures	-	-	-
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**10**	**10**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**10**	**10**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**1**	**15**	**15**
Micro-Teaching Sessions	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**99**
ECTS Credit			**3**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	15	10
Laboratory	-	-
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	50
Total	**4**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Ocean Governance and Policy							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
MMD209	II	Fall	3	3	3	0	0
Course type: Elective				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				-	-	-	100
Course Venue and Time				Monday / 13:30 – 16:20			
Instructor information				**Dr. Gökhan Tarı** Faculty of Maritime Studies Wednesday / 09:00 – 12:00 +90 (392) 650 26 00 / 4040 gokhan.tari@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	**Ocean Governance and Policy** is an interdisciplinary course that examines the legal, institutional, and strategic frameworks regulating the world's oceans. Rooted in the principles of international maritime law and global policy-making, the course explores how states, international organizations, regional bodies, and private stakeholders shape the governance of marine spaces and resources. Students will engage with the United Nations Convention on the Law of the Sea (UNCLOS), international maritime regulations, environmental protection regimes, and contemporary issues such as maritime security, climate change, blue economy initiatives, and the governance of emerging technologies. Emphasis is placed on understanding how governance and policy decisions influence maritime operations, global trade, sustainability, and international relations. Through case studies, comparative policy analysis, and scenario-based exercises, students will develop the skills necessary to interpret legal frameworks, evaluate ocean policies, and contribute to effective maritime governance in a rapidly changing global context.
Course Aims and Objectives	The primary aim of this course is to equip students with a comprehensive understanding of the legal, regulatory, and policy frameworks that govern the world's oceans, while developing their ability to analyze, interpret, and apply these frameworks within maritime industry contexts. • **Understand the foundations of ocean governance**, including the historical evolution of maritime law and the role of key international institutions. • **Explain the structure and principles of UNCLOS**, and evaluate how it regulates maritime zones, navigational rights, and state responsibilities. • **Analyze major international and regional ocean policies**, including environmental protection, maritime security, resource management, and fisheries governance. • **Assess the impact of global maritime policies** on commercial shipping, port operations, offshore activities, and global trade networks. • **Examine emerging issues**, such as climate change impacts, Arctic governance, marine biodiversity beyond national jurisdiction (BBNJ), and the governance of maritime technologies. • **Interpret and critique real-world policy documents, agreements, and international conventions** related to ocean and coastal governance.

	• **Develop policy-oriented thinking**, enabling students to propose effective regulatory and governance solutions to contemporary maritime challenges. • **Collaborate in discussions and case analyses** to understand the roles and interactions of states, organizations, NGOs, and industry stakeholders in ocean governance. • **Apply governance frameworks in crisis or conflict scenarios**, such as maritime disputes, security incidents, or environmental emergencies. • **Strengthen analytical, research, and strategic decision-making skills** relevant to maritime management and international policy environments.
Course Learning Outcomes	**LO1:** Explain the fundamental concepts, principles, and historical development of global ocean governance. **LO2:** Interpret the structure of UNCLOS and analyze maritime zones and jurisdictional rights. **LO3:** Identify the roles and responsibilities of international, regional, and national ocean governance institutions. **LO4:** Analyze governance and policy issues related to maritime security, environmental protection, and resource management. **LO5:** Evaluate the impact of international maritime policies on shipping, ports, marine resources, and coastal states. **LO6:** Apply legal and policy frameworks to real-world case studies, including maritime boundary disputes and governance challenges. **LO7:** Develop policy recommendations related to sustainability, marine protection, blue economy, or maritime security. **LO8:** Interpret maritime jurisdiction, boundary delimitation, and ocean-use conflicts through practical scenarios. **LO9:** Demonstrate effective teamwork and communication skills during simulations, debates, and group policy projects. **LO10:** Produce well-structured academic reports, policy briefs, and presentations on ocean governance issues.

Content of the Course

Week	*Subject*
1	**Introduction to Ocean Governance** • Definition, scope, and evolution of ocean governance • Importance for global trade, environment, and maritime management • Key actors: states, IGOs, NGOs, private sector
2	**Historical Development of Ocean Governance** • Mare Liberum vs. Mare Clausum • Evolution of maritime zones • Development of international maritime law
3	**The United Nations and Global Maritime Governance** • UN structure relevant to oceans • UN bodies influencing maritime governance (UNGA, UNEP, UNDP, UNCTAD) • UN Sustainable Development Goals (SDG 14: Life Below Water)
4	**UNCLOS: The Constitution of the Oceans (Part I)** • Structure and principles of UNCLOS • Maritime zones: internal waters, territorial sea, contiguous zone • Innocent passage and coastal state rights
5	**UNCLOS (Part II): Continental Shelf, EEZ, and High Seas** • Jurisdiction, rights, and responsibilities of states • Resource exploitation and environmental obligations • Freedoms of the high seas
6	**Maritime Boundary Delimitation and Dispute Settlement** • Delimitation principles • Case studies: Aegean, South China Sea, Arctic disputes • International Court of Justice (ICJ) and ITLOS
7	**International Maritime Organizations and Regulatory Frameworks** • IMO: structure, functions, and key conventions • ILO, FAO, IMO–ILO joint initiatives • Regional seas organizations
8	**Marine Environmental Protection and Pollution Control** • MARPOL and environmental obligations • Ballast water management, ship recycling, air emissions (IMO 2020/2050 targets) • Protection of sensitive sea areas (PSSAs, MPAs)
9	**Oceans and Climate Change** • Impact of climate change on maritime activities • Sea-level rise, acidification, extreme weather risks • International policies: Paris Agreement, climate mitigation in maritime sector
10	**Blue Economy Governance**

	• Sustainable use of marine resources • Fisheries governance (FAO regulations, RFMO structures) • Offshore energy (wind, tidal, wave), seabed mining governance
11	**Maritime Security Governance** • Piracy, armed robbery, illegal fishing (IUU), smuggling, maritime terrorism • International legal responses • Regional cooperation frameworks (ReCAAP, EUNAVFOR, Combined Task Forces)
12	**Ocean Policy-Making and National Maritime Strategies** • How states formulate maritime policy • Examples: EU Integrated Maritime Policy, US Ocean Policy, Turkey's maritime strategy • Role of maritime administrations
13	**Stakeholder Engagement and Ocean Diplomacy** • Role of port authorities, coastal communities, NGOs • Corporate responsibility and sustainability standards • Maritime diplomacy and conflict resolution
14	**Emerging Issues in Ocean Governance** • Autonomous ships, digital compliance, maritime cybersecurity • Arctic governance and new shipping routes • Marine genetic resources and BBNJ Agreement (2023)
15	**Course Review & Case Studies + Final Exam Preparation** • Comprehensive review of key governance frameworks • Group case studies on real-world ocean policy issues • Final exam briefing

Methods and Techniques used in the Course

Lectures and Interactive Discussions:
Used to introduce foundational concepts of ocean governance, maritime law, and policy frameworks.

Case Study Analysis:
Examination of real-world issues such as maritime boundary disputes, marine environmental incidents, and governance challenges.

Problem-Based Learning (PBL):
Students work on complex maritime governance problems requiring legal, managerial, and policy-based solutions.

Group Projects and Collaborative Work:
Development of policy briefs, governance proposals, and analysis of institutional frameworks.

Simulations and Role-Playing Exercises:
Mock negotiations on UNCLOS-related issues, maritime security scenarios, and international policy dialogues.

Guest Lectures / Expert Sessions:
Talks by practitioners from IMO, maritime authorities, environmental NGOs, or port administrations.

Digital Tools and Data Platforms:
Use of GIS-based maritime maps, AIS data platforms, legal databases, and marine policy resources.

Video-Based Learning and Multimedia Resources:
Documentaries, IMO materials, and digital content to understand real maritime governance challenges.

Research and Report Writing:
Preparation of analytical papers and policy reports on governance and ocean management issues.

Student Presentations:
Presentation of case-study findings, policy recommendations, or group project outcomes.

Sample Questions

Short Answer Questions

- Define *Ocean Governance* and explain its importance for global maritime activities.
- What are the main objectives of the United Nations Convention on the Law of the Sea (UNCLOS)?
- Explain the difference between *Territorial Sea*, *Exclusive Economic Zone (EEZ)*, and *High Seas*.
- What is the role of the International Maritime Organization (IMO) in ocean governance?
- Briefly describe the concept of *Marine Spatial Planning (MSP)*.

Essay / Long-Form Questions

- Discuss how environmental protection principles under UNCLOS influence national maritime policies. Provide examples.
- Evaluate the challenges of governing the High Seas in the context of illegal fishing, piracy, and environmental degradation.
- Explain the importance of ocean governance for the sustainable management of marine resources within the Blue Economy framework.

Case Study / Applied Questions

- A maritime boundary dispute has arisen between two neighboring coastal states. Using UNCLOS principles, outline how such a dispute should be resolved.
- A major oil spill occurs in a nation's EEZ. Analyze the roles and responsibilities of the coastal state, shipowner, IMO, and other relevant international bodies in responding to the crisis.
- You are tasked with developing a Marine Spatial Plan for a region with fisheries, tourism, shipping lanes, and offshore energy development. Explain the steps you would follow and the stakeholders involved.

Multiple Choice Questions (MCQ)

- Which organization is primarily responsible for regulating global shipping safety?
  a) FAO
  b) IMO
  c) UNESCO
  d) ILO
- The EEZ of a coastal state extends up to:
  a) 12 nautical miles
  b) 24 nautical miles
  c) 200 nautical miles
  d) 350 nautical miles
- Which of the following is *not* considered a High Seas challenge?
  a) Piracy
  b) Overfishing
  c) Marine pollution
  d) Port State Control

Critical Thinking / Policy Questions

- Propose a governance model that could improve cooperation between coastal states in managing shared marine ecosystems.
- How can digital technologies (AIS, satellite monitoring, big data) improve compliance and enforcement in ocean governance?

Materials Used in the Course

Primary Textbooks

- **Rothwell, D. R., & Stephens, T. (2016). *The International Law of the Sea*.** Cambridge University Press.
- **de la Fayette, L., & Oude Elferink, A. G. (Eds.). (2019). *Ocean Governance: Sustainable Development of the Seas*.** Brill Academic Publishers.
- **Tanaka, Y. (2015). *The International Law of the Sea*.** Bloomsbury Publishing.

Recommended References

- **Churchill, R., Lowe, A., & Sander, V. (2022). *The Law of the Sea*.**
- **IMO Publications – *International Conventions and Codes* (SOLAS, MARPOL, ISPS, etc.)**
- **UN (2017). *United Nations Convention on the Law of the Sea (UNCLOS)*.** *Core text governing maritime jurisdiction; required reading.*
- **Cicin-Sain, B., & Belfiore, S. (2005). *Marine Policy & Governance: Global and Regional Perspectives*.**
- **Trevisanut, S., Kraska, J., & Vodičková, A. (Eds.). (2020). *The Future of Ocean Governance and Capacity Development*.**

Supplementary Learning Materials

- **Academic Journals**
  Marine Policy
  Ocean & Coastal Management
  The International Journal of Marine and Coastal Law
  Maritime Affairs: Journal of the National Maritime Foundation
- **Online Platforms & Reports**
  IMO e-Library – latest conventions, circulars, and guidelines
  UN Ocean Portal – global ocean policy material
  FAO Fisheries & Aquaculture Reports
  OECD Ocean Economy and Blue Growth Reports
- **Case Studies & Legal Databases**
  ITLOS Case Judgments and Summaries (International Tribunal for the Law of the Sea)
  ICJ Maritime Boundary Case Files
  GIS Marine Spatial Planning tools (EU MSP Platform)
- **Documentaries & Media Resources**
  National Geographic: *Ocean Governance & Marine Conservation*
  BBC Earth: *Ocean Challenges*
  UN World Oceans Day recorded seminars
- **Technical Tools**
  MarineTraffic / AIS data platforms (for maritime situational awareness)
  EMSA (European Maritime Safety Agency) reports and dashboards

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
	LO1	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	**LO7**	**LO8**	**LO9**	**L10**
PO1	3	3	2	2	2	1	3	2	2	2
PO2	3	3	3	2	2	1	2	1	2	1
PO3	2	3	1	3	3	2	1	3	1	1
PO4	2	2	1	2	3	3	2	2	2	2
PO5	1	2	2	1	1	2	2	2	3	3
PO6	1	2	1	2	1	1	2	3	2	2
PO7	1	1	1	1	1	3	2	2	3	3
PO8	1	1	3	1	1	1	2	1	2	1
PO9	1	1	2	1	1	1	1	1	2	2
PO10	2	2	1	2	3	3	2	2	2	2
PO11	1	2	2	1	1	2	2	2	3	3
PO12	1	2	1	2	1	1	2	3	2	2
PO13	3	3	3	2	2	1	2	1	2	1
PO14	2	3	1	3	3	2	1	3	2	2
PO15	1	2	1	2	2	3	2	2	3	3

Course Learning Outcomes/ Evaluation Method		
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
CLO1: Explain the fundamental concepts, principles, and frameworks of ocean governance at global and regional levels.	Lectures, interactive discussions	Midterm exam, quizzes
CLO2: Interpret the structure, role, and provisions of UNCLOS and related international maritime conventions.	Lectures, case studies, legal text analysis	Midterm exam, written assignments
CLO3: Identify maritime zones, jurisdictional boundaries, and coastal state rights and obligations.	Lectures, GIS demonstrations, problem-solving exercises	Quizzes, case-based assessment
CLO4: Analyze key ocean governance challenges such as maritime security, resource management, and environmental sustainability.	Case studies, group discussions	Written reports, midterm exam
CLO5: Evaluate the roles of global institutions (IMO, UN, regional bodies) in shaping maritime policy frameworks.	Seminars, research activities	Research paper, presentations
CLO6: Assess maritime boundary disputes and real-world legal cases involving oceans and seas.	Case study analysis, legal scenario solving	Case study report, class participation
CLO7: Examine the relationship between ocean governance, blue economy development, and sustainability goals.	Lectures, workshops	Term paper, project
CLO8: Apply policy analysis tools to propose effective governance strategies for marine resources and maritime activities.	Workshops, simulations	Group project, presentations
CLO9: Demonstrate understanding of compliance, enforcement, and monitoring mechanisms in the maritime domain.	Practical examples, interactive discussions	Written assignments, quizzes
CLO10: Develop critical thinking and communication skills through policy evaluation, debate, and professional reporting.	Debates, role-play, presentations	Oral presentation, participation, final exam

ECTS / Workload Table

Activities	Number	Duration (Hours)	Total Workload
Preparation for lectures	-	-	-
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**10**	**10**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**10**	**10**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**1**	**15**	**15**
Micro-Teaching Sessions	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**99**
ECTS Credit			**3**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	15	10
Laboratory	-	-
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	50
Total	**4**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Environmental Impact Assessment in Shipping							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
MMD211	II	Fall	3	3	3	0	0
Course type: Elective				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				-	-	-	100
Course Venue and Time				Monday / 08:30 – 11:20			
Instructor information				**Dr. Gökhan Tarı** Faculty of Maritime Studies Wednesday / 09:00 – 12:00 +90 (392) 650 26 00 / 4040 gokhan.tari@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	**Environmental Impact Assessment in Shipping** provides students with a comprehensive understanding of how maritime operations affect the environment and the methods used to assess, manage, and mitigate these impacts. The course covers international regulations, environmental management systems, pollution prevention, and sustainable practices in shipping and port operations. Students will explore environmental risk assessment, monitoring, and reporting techniques, focusing on both operational and strategic decision-making. Through case studies, practical exercises, and analysis of real-world incidents, students will develop the skills to evaluate environmental impacts, implement mitigation strategies, and ensure compliance with international and national environmental standards. The course emphasizes the integration of environmental considerations into maritime management, ship design, and operational planning, preparing students to promote sustainability and reduce the ecological footprint of shipping activities.
Course Aims and Objectives	The course aims to equip students with the knowledge and skills necessary to evaluate and manage the environmental impacts of shipping operations. It emphasizes the application of international regulations, risk assessment methods, and sustainable practices to promote environmentally responsible maritime management. • Understand the environmental challenges and impacts associated with shipping operations. • Explain international conventions, regulations, and standards governing environmental protection in shipping. • Identify, assess, and prioritize environmental risks in maritime activities. • Apply environmental impact assessment (EIA) methodologies to shipping and port operations. • Analyze the effectiveness of pollution prevention and mitigation measures. • Evaluate environmental management systems (EMS) and compliance procedures for shipping companies. • Incorporate sustainability considerations into ship design, operation, and port management. • Use monitoring, reporting, and auditing tools to ensure environmental compliance.

	• Examine case studies of environmental incidents in shipping to extract lessons learned. • Develop practical strategies for minimizing the ecological footprint of maritime operations.
Course Learning Outcomes	**LO1:** Explain the key environmental challenges and impacts associated with shipping operations. **LO2:** Identify and interpret international conventions, regulations, and standards related to maritime environmental protection. **LO3:** Conduct environmental risk assessments for ships, ports, and maritime activities. **LO4:** Apply Environmental Impact Assessment (EIA) methodologies to evaluate maritime projects and operations. **LO5:** Analyze and recommend pollution prevention and mitigation strategies for shipping operations. **LO6:** Evaluate Environmental Management Systems (EMS) and compliance measures in shipping companies. **LO7:** Integrate sustainability principles into ship design, operation, and port management. **LO8:** Utilize monitoring, reporting, and auditing tools to ensure adherence to environmental regulations. **LO9:** Critically assess real-world maritime environmental incidents and extract lessons for future practice. **LO10:** Develop practical strategies to minimize the ecological footprint of maritime operations while maintaining operational efficiency.

Content of the Course

Week	*Subject*
1	**Introduction to Environmental Impact Assessment (EIA)** • Definition, purpose, and importance of EIA in maritime operations • Overview of environmental regulations in shipping
2	**Environmental Challenges in Maritime Industry** • Air pollution, greenhouse gas emissions, and climate change • Marine pollution: oil spills, ballast water, and waste management
3	**International Conventions and Regulatory Frameworks** • MARPOL, IMO regulations, and other international agreements • Flag state and port state responsibilities
4	**Environmental Impact Assessment Process** • Stages of EIA: screening, scoping, assessment, and monitoring • Integration of EIA into shipping project planning
5	**Identification and Evaluation of Environmental Risks** • Risk assessment methods in shipping • Tools for evaluating environmental impacts of ship operations
6	**Pollution Prevention Measures** • Emission control technologies for ships • Waste management and ballast water treatment systems
7	**Ports and Terminal Environmental Management** • Environmental assessment for port operations • Noise, water, and air quality management
8	**Green Shipping and Sustainable Practices** • Low-emission fuels, LNG, hybrid, and electric propulsion • Energy efficiency measures (EEDI, SEEMP)
9	**Ship Design and Environmental Considerations** • Hull design, energy-efficient machinery, and ship retrofitting • Life cycle assessment (LCA) of ships
10	**Environmental Monitoring and Reporting** • Environmental audits and compliance reporting • Environmental management systems (EMS) in shipping companies
11	**Economic and Legal Aspects of EIA** • Cost-benefit analysis of environmental measures • Liability, penalties, and insurance implications
12	**Emerging Technologies and Innovations** • Digitalization for environmental monitoring • Big data, sensors, and AI for maritime environmental management
13	**Case Studies in Environmental Impact** • Analysis of past environmental incidents in shipping

	• Lessons learned and best practices
14	**Risk Mitigation Strategies** • Scenario planning for environmental crises • Contingency planning and emergency response
15	**Review and Final Assessment** • Comprehensive review of EIA concepts in maritime operations • Case study presentations and final exam preparation

Methods and Techniques used in the Course

Lectures and Interactive Discussions:

Explanation of environmental regulations, EIA methodologies, and sustainability principles in shipping.

Case Studies Analysis:

Examination of real-world shipping incidents, pollution events, and port environmental management examples.

Workshops and Practical Exercises:

Hands-on activities for conducting environmental risk assessments and applying EIA techniques.

Simulations and Scenario Planning:

Exercises simulating environmental crises, emergency response, and mitigation strategies.

Guest Lectures / Industry Insights:

Presentations by environmental officers, maritime consultants, and port authorities sharing practical experience.

Research Assignments:

Investigation of emerging technologies, sustainable solutions, and regulatory compliance in maritime operations.

Group Projects:

Collaborative projects analyzing environmental impacts of maritime activities and proposing mitigation measures.

Data Analysis and Reporting:

Use of software tools and templates to monitor, report, and communicate environmental performance.

Field Visits (Optional / Virtual):

Visits to ports, shipyards, or maritime facilities to observe environmental practices and compliance procedures.

Presentations:

Students present project findings, EIA reports, or sustainability improvement plans to enhance analytical and communication skills.

Sample Questions

Short Answer Questions

- Define Environmental Impact Assessment (EIA) and explain its importance in maritime operations.
- List three major environmental challenges associated with shipping activities.
- Name two international conventions that regulate pollution from ships.
- Explain the difference between Environmental Management Systems (EMS) and EIA.
- Identify key indicators used to monitor environmental performance in ports.

Essay / Long-Form Questions

- Discuss how environmental regulations have changed the operational practices of shipping companies.
- Analyze the role of sustainable ship design in reducing environmental impacts.
- Explain how ports can integrate EIA into their operational planning to improve sustainability.

Case Study / Applied Questions

- A container ship discharges ballast water in a sensitive marine area. Outline the steps you would take to assess and mitigate the environmental impact.
- A port faces recurring air pollution problems from vessel emissions. Propose a strategy using EIA and monitoring tools to reduce emissions.
- Evaluate the environmental risks of adopting LNG-powered ships and suggest mitigation measures.

Multiple Choice Questions (MCQs)

- Which of the following is a key international regulation for preventing ship pollution?
  a) SOLAS
  b) MARPOL
  c) STCW
  d) ISM Code
- Which activity is part of the EIA process?
  a) Scoping and screening
  b) Ship registration
  c) Crew training
  d) Cargo loading
- Which of the following is a component of Environmental Management Systems (EMS)?
  a) Operational procedures for pollution prevention
  b) Financial accounting only
  c) Crew personal records
  d) Liner trade pricing

Critical Thinking / Problem-Solving Questions

- Propose a method to assess the environmental impact of cruise ships visiting a coastal city.
- How can digital monitoring technologies be integrated into EIA to improve compliance and sustainability in shipping operations?

Materials Used in the Course

Primary Textbooks

- **Stopford, M. (2020). *Maritime Economics* (3rd Edition).** Routledge.
- **Klein, D., & Sadeghian, S. (2019). *Maritime Environmental Management*.** Springer.
- **Ballou, R. H. (2017). *Green Logistics and Sustainability in Maritime Transport*.** Palgrave Macmillan.

Recommended References

- **IMO Publications – MARPOL, MEPC Guidelines, and Environmental Compliance Reports.**
- **UNCTAD Review of Maritime Transport – Environmental Sections.**
- **Journal Articles:**

  Marine Policy

  Journal of Cleaner Production

  Ocean & Coastal Management

- **Academic Reports and Case Studies:**

  Ballast water management studies

  Cruise ship environmental impact assessments

  Port air quality and emission reduction reports

Supplementary Learning Materials

- **Software and Tools:**

  Excel for environmental data analysis

  GIS tools for environmental mapping

- **Web Resources:**

  IMO environmental guidelines online

  Port authority environmental monitoring dashboards

- **Industry Reports / Guidelines:**

  Environmental impact assessment frameworks

  Sustainable shipping practices

- **Guest Lectures / Webinars:**

  Environmental officers from shipping companies and ports

  Experts in maritime sustainability and regulatory compliance

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
	LO1	**LO2**	**LO3**	**LO4**	**LO5**	**LO6**	**LO7**	**LO8**	**LO9**	**L10**
PO1	3	3	2	2	2	1	3	2	2	2
PO2	3	3	3	2	2	1	2	1	2	1
PO3	2	3	1	3	3	2	1	3	1	1
PO4	2	2	1	2	3	3	2	2	2	2
PO5	1	2	2	1	1	2	2	2	3	3
PO6	1	2	1	2	1	1	2	3	2	2
PO7	1	1	1	1	1	3	2	2	3	3
PO8	1	1	3	1	1	1	2	1	2	1
PO9	1	1	2	1	1	1	1	1	2	2
PO10	2	2	1	2	3	3	2	2	2	2
PO11	1	2	2	1	1	2	2	2	3	3
PO12	1	2	1	2	1	1	2	3	2	2
PO13	3	3	3	2	2	1	2	1	2	1
PO14	2	3	1	3	3	2	1	3	2	2
PO15	1	2	1	2	2	3	2	2	3	3

Course Learning Outcomes/ Evaluation Method		
Course Learning Outcomes (CLOs)	**Teaching Method**	**Assessment Method**
CLO1: Describe the environmental challenges and impacts of shipping operations.	Lectures, interactive discussions	Quizzes, short-answer assignments
CLO2: Explain international regulations and conventions governing maritime environmental protection.	Lectures, case studies	Written assignments, midterm exam
CLO3: Conduct environmental risk assessments for ships, ports, and maritime activities.	Workshops, practical exercises	Lab exercises, project assignments
CLO4: Apply Environmental Impact Assessment (EIA) methodologies in maritime operations.	Case studies, simulations	Project reports, practical exercises
CLO5: Analyze and recommend pollution prevention and mitigation strategies for shipping operations.	Group projects, interactive discussions	Group project reports, presentations
CLO6: Evaluate Environmental Management Systems (EMS) and compliance procedures in shipping companies.	Lectures, workshops	Written assignments, case study analysis
CLO7: Integrate sustainability principles into ship design, operations, and port management.	Lectures, software tutorials	Assignments, project presentations
CLO8: Monitor and report environmental performance using appropriate tools and techniques.	Practical exercises, workshops	Lab exercises, reporting assignments
CLO9: Critically assess real-world environmental incidents in shipping to extract lessons learned.	Case studies, interactive discussions	Case study reports, class participation
CLO10: Develop strategies to minimize the ecological footprint of maritime operations while maintaining efficiency.	Group projects, simulations	Final project, presentations, and exam

ECTS / Workload Table

Activities	Number	Duration (Hours)	Total Workload
Preparation for lectures	-	-	-
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**2**	**2**
Preparation for Midterm Exam	**1**	**10**	**10**
Final Exam	**1**	**2**	**2**
Preparation for Final Exam	**1**	**10**	**10**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**1**	**15**	**15**
Micro-Teaching Sessions	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**99**
ECTS Credit			**3**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	15	10
Laboratory	-	-
Application	-	-
Field Work	-	-
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	50
Total	**4**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Maritime Safety III							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
SAF201	II	Fall	3	3	2	2	0
Course type: Compulsory				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				30	-	-	70
Course Venue and Time				Wednesday 14.30-17.20			
Instructor information				**Cpt. Çağrı Deliceırmak** Faculty of Maritime Studies Wednesday / 09:00 – 12:00 +90 (392) 650 26 00 / 4060 cagri.deliceirmak@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	This course offers comprehensive training in shipboard security, emergency management, and fire prevention for maritime professionals. It focuses on the role and responsibilities of the Ship Security Officer (SSO) and the Ship Security Plan (SSP) under international regulations, including the SOLAS, STCW, and ISPS Code. Students will gain knowledge of maritime security policies, risk assessment techniques, threat identification, vulnerability management, and firefighting organization and management. Additionally, this course provides comprehensive training in firefighting organization on ships, as well as search and rescue procedures for assisting vessels and people in distress. The course will be conducted in accordance with the IMO Model Courses 2.03, and 3.19, as well as the national regulation "Egitim Sinav Yonergesi 2025" of the Turkish Republic. Successful students will obtain mandatory STCW certificates of (1); Advanced Firefighting, (2); Ship Security Officer. Emphasis is placed on practical applications, including drills, simulations, and coordinated emergency procedures to ensure safe and effective shipboard operations. By integrating theoretical knowledge with practical exercises, the course prepares students to enhance firefighting and ship security organization, implement safety and security measures, respond effectively to onboard emergencies, and assist the vessels in distress in compliance with international maritime standards.
Course Aims and Objectives	The course aims to equip students with the knowledge, skills, and competencies necessary to ensure shipboard safety and security, advanced firefighting, and search-and-rescue capabilities. It emphasizes understanding maritime security policies, recognizing threats, managing risks, and effectively responding to emergencies, including fire and search-and-rescue operations. Students will also learn to operate and maintain onboard safety and security systems in accordance with international regulations. This combination of theoretical and practical training prepares students for real-world maritime safety and security challenges. • Understand the concept of maritime security. • Understand the duties and responsibilities of the Master, SSO, CSO, PFSO, as well as the content of the SSP and SSA. • Comprehend and identify potential security threats, vulnerabilities, and risks onboard a vessel, and implement suitable security measures to ensure effective security management.

	• Acquire and apply advanced competencies in firefighting and fire emergency management organizations. • Acquire knowledge and engage in the practice of operating, testing, and maintaining onboard firefighting and security equipment and systems. • Comprehend the significance of shipboard drills and simulations in preparing for emergencies. • Enhance overall situational awareness, communication, and coordination skills during maritime emergencies. • Comprehend and proficiently execute search and rescue protocols at sea.
Course Learning Outcomes	**LO1**: Demonstrate a comprehensive understanding of maritime security policies, regulations, and conventions (SOLAS, STCW, ISPS). **LO2**: Identify, evaluate, and mitigate security risks, threats, and vulnerabilities on board vessels. **LO3**: Implement and effectively monitor ship security plans and related procedures. **LO4**: Demonstrate advanced knowledge and skills in firefighting operations and organizations on board. **LO5**: Operate, test, and maintain shipboard fire and security equipment. **LO6**: Plan and execute training sessions, drills, and simulations to ensure ongoing compliance with safety and security protocols and prepare detailed reports and evaluations of safety and security incidents for regulatory and operational purposes. **LO7**: Demonstrate advanced skills in situational awareness, communication, coordination, and decision-making during complex maritime emergencies. **LO8**: Effectively respond to the distress alerts of other ships and conduct search and rescue operations for the survivors at sea.

Content of the Course

Week	*Subject*
1	**Introduction to Maritime Security and Safety Policies** Terminology and related maritime English terms History of maritime criminal activities Current threats: piracy, armed robbery, terrorism, smuggling Ship and port operations overview Key definitions, terminology, and responsibilities of states under SOLAS Security organization: company, ship, and port facility responsibilities International regulations on maritime security
2	**Security Responsibilities** Terminology and related maritime English terms Purpose and structure of Ship Security Plans (SSP) Procedures for implementing SSP and reporting security incidents Maritime security levels and critical ship/port security measures Confidentiality and communication of security information Internal audits, inspections, and monitoring procedures
3	**Ship Security Plan Implementation and Oversight** Terminology and related maritime English terms Legal framework for Ship Security Officer (SSO) actions Role of the Master, SSO, Company Security Officer, Port Facility Security Officer Other personnel involved in maritime security
4	**Security Risk, Threat, and Vulnerability Assessment** Terminology and related maritime English terms Risk assessment methods and tools Security documentation and reporting Identification of potential threats, weapons, and hazardous materials Crowd management and coordination Handling sensitive information and security communications
5	**Onboard Security Inspections** Terminology and related maritime English terms Restricted area monitoring and control of access Monitoring of the deck and ship perimeter Security procedures for cargo handling and personnel movement Security measures and coordination in port and ship-to-ship operations
6	**Operation, Testing, and Calibration of Security Equipment** Terminology and related maritime English terms Security equipment types and operational limitations Alarm systems and onboard communication protocols Testing, calibration, and maintenance of security systems Security exercises, drills, training per IMO guidelines, and their evaluations Methods to improve security awareness and onboard readiness
7	**Advanced Fire-Fighting – Principles** Terminology and related maritime English terms

	Fire chemistry and classes of fire Fire prevention and firefighting equipment Organizational and tactical considerations in port and at sea Fire impact on vessel stability and corrective measures
8	**Advanced Fire-Fighting – Systems and Operations** Terminology and related maritime English terms Firefighting team organization and roles Fire detection, fixed and portable extinguishing systems Coordination, communication, and ventilation control
9	**Advanced Fire-Fighting – Systems and Operations** Terminology and related maritime English terms Firefighting team organization and roles Contingency Plans and Team Management Coordination, communication, and ventilation control
10	**Advanced Fire-Fighting – Systems and Operations** Terminology and related maritime English terms Firefighting involving fuel, chemical, and electrical systems Handling hazardous materials and storage safety Control of fuel and electrical systems Dangers caused by fire.
11	**Fire Incident Investigation and Reporting** Terminology and related maritime English terms Legal and classification society reporting requirements Fire event cause analysis Documentation and lessons learned
12	**Search and Rescue Operations** Terminology and related maritime English terms Assisting to a distressed ship, preparations, procedures, and legal aspects Surviving people from a distressed ship Emergency in port
13	**Search and Rescue Operations** Terminology and related maritime English terms IAMSAR Search and Rescue methods and techniques Coordination and communication in search and rescue operations
14	**Search and Rescue Operations** Terminology and related maritime English terms IAMSAR Search and Rescue methods and techniques Coordination and communication in search and rescue operations
15	**Review and Final Evaluation** Recap of maritime safety policies, risk assessment, and emergency procedures Practical assessment and scenario-based exercises Evaluation of student competence in shipboard safety and security operations

Methods and Techniques used in the Course

Lectures and Interactive Discussions – Covering maritime security policies, safety regulations, and risk management principles.

Case Studies – Analysis of real-world maritime security incidents, accidents, and emergencies.

Practical Drills and Simulations – Hands-on training for firefighting, emergency response, collision, grounding, and man-overboard scenarios.

Workshops – Focused sessions on the operation, calibration, and maintenance of safety and security equipment.

Role-Playing Exercises – Simulating shipboard emergencies to develop communication, teamwork, and leadership skills.

Shipboard Security and Safety Plan Exercises – Developing, implementing, and auditing security plans in simulated environments.

Multimedia Resources – Use of instructional videos, manuals, and interactive modules to reinforce theoretical knowledge.

Group Projects – Collaborative exercises on risk assessment, emergency planning, and safety audits.

Quizzes and Written Assignments – Assessing comprehension of regulations, safety procedures, and maritime security practices.

Assessment of Competency in Equipment Use – Practical evaluation of students' abilities to operate firefighting and safety systems effectively.

Sample Questions

- Define the role and responsibilities of a Ship Security Officer (SSO) under international regulations.
- Explain the procedures for implementing and monitoring a Ship Security Plan (SSP).
- Describe methods to identify and assess potential security threats, including piracy and armed robbery.
- Outline the steps for fire detection, alarm, and firefighting on board, and the coordination required among crew members.
- Discuss the correct use and maintenance of shipboard security equipment and systems.
- Describe how to conduct regular security inspections and audits to ensure compliance with ISPS Code.
- Describe the organization and training requirements of firefighting teams on board a vessel.
- Explain the search and rescue methods and techniques in a distress alert.

Materials Used in the Course

Textbooks and Reference Books

- Lecturer Notes, Related IMO Model Courses and STCW (Standards of Training, Certification, and Watchkeeping) manuals.
- SOLAS Consolidated Edition, ISPS Code, LSA Code, FSS Code, The Fire Fighting System Guidance, Fire Prevention and Fire Fighting, IAMSAR Manual
- Related IMO Model Courses and STCW (Standards of Training, Certification, and Watchkeeping) manuals.
- Maritime Safety textbooks covering ISPS and ship security, fire prevention and firefighting, shipboard emergency procedures, including SOLAS, STCW, ISPS Code, LSA Code, and FSS Code
    - SOLAS Consolidated Edition
    - ISPS Code Guidelines
    - LSA Code
    - FSS Code
    - The Fire Fighting System Guidance
    - Fire Prevention and Fire Fighting
    - IAMSAR Manual

Supplementary Resources

- Instructional videos demonstrate emergency response techniques, personal safety, and the use of protective equipment.
- Interactive simulations of onboard emergency scenarios, including collision, flooding, fire, and piracy attacks.
- CCTV, Hand-held VHF, detectors, sensors, and locking systems.
- Firefighting equipment, CO2 system, Fireman's Outfit and BA Sets, Hoses, Nozzles, Detection Systems and Alarms
- Shipboard training manuals and emergency plans.
- Practical drill checklists for emergency response.
- Evaluation sheets for ship security and firefighting operations.
- Risk assessment templates for security threats and onboard hazards.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
PO	**CLO1**	**CLO2**	**CLO3**	**CLO4**	**CLO5**	**CLO6**	**CLO7**	**CLO8**	**CLO9**	**CLO10**
PO1	3	3	3	3	3	3	3	3	x	x
PO2	3	3	3	3	3	3	3	3	x	x
PO3	3	3	3	3	3	3	3	3	x	x
PO4	2	2	2	2	2	2	2	2	x	x
PO5	3	3	3	3	3	3	3	3	x	x
PO6	3	3	3	3	3	3	3	3	x	x
PO7	3	3	3	3	3	3	3	3	x	x
PO8	2	2	2	2	2	2	2	2	x	x
PO9	2	2	2	1	1	1	1	1	x	x
PO10	3	3	3	3	3	3	3	3	x	x
PO11	3	3	3	3	3	3	3	3	x	x
PO12	3	3	3	3	3	3	3	3	x	x
PO13	2	2	2	1	1	1	1	1	x	x
PO14	2	2	2	1	1	1	1	1	x	x
PO15	2	2	2	1	1	1	1	1	x	x

Course Learning Outcomes/ Evaluation Method		
CLO	**Teaching Method**	**Assessment Method**
LO1	Lectures, Practical Applications, Case Studies, and Discussions	Midterm Exam, Practical Exam, Final Exam, Assignment
LO2	Lectures, Practical Applications, Case Studies, and Discussions	Midterm Exam, Practical Exam, Final Exam, Assignment
LO3	Lectures, Practical Applications, Case Studies, and Discussions	Midterm Exam, Practical Exam, Final Exam, Assignment
LO4	Lectures, Practical Applications, Case Studies, and Discussions	Midterm Exam, Practical Exam, Final Exam, Assignment
LO5	Lectures, Practical Applications, Case Studies, and Discussions	Midterm Exam, Practical Exam, Final Exam, Assignment
LO6	Lectures, Practical Applications, Case Studies, and Discussions	Midterm Exam, Practical Exam, Final Exam, Assignment
LO7	Lectures, Practical Applications, Case Studies, and Discussions	Midterm Exam, Practical Exam, Final Exam, Assignment
LO8	Lectures, Practical Applications, Case Studies, and Discussions	Midterm Exam, Practical Exam, Final Exam, Assignment

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Preparation for lectures	**15**	**1**	**15**
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**1**	**1**
Preparation for Midterm Exam	**1**	**5**	**5**
Final Exam	**1**	**1**	**1**
Preparation for Final Exam	**1**	**5**	**5**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	-	-	-
Group Work	-	-	-
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**2**	**5**	**10**
Micro-Teaching Sessions	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**97**
ECTS Credit			**3**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	1	10
Laboratory	-	-
Application	1	20
Field Work (Class Work)	-	-
Special Course Internship (Work Placement)	-	-
Assignment(s)/Homework/Class Works	2	20
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	-	-
Quiz	-	-
Midterms/Oral Exams	1	20
Final/Oral Exams	1	30
Total	**6**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check the instructor's web page frequently for the course announcements. • The University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		

University of Kyrenia

Maritime Vocational School

Maritime Management and Operations

Syllabus

Course name: Ship Handling							
Code	**Year**	**Semester**	**Credit**	**ECTS**	**Course application, Hour/Week**		
					Theoretical	**Application**	**Laboratory**
SHA201	II	Fall	3	3	2	2	0
Course type: Compulsory				**Prerequisite: x**		**Language:** English	
% Contribution to the Professional Fundamental Component				**Basic Sciences**	**Engineering Science**	**Engineering Design**	**General Education**
				40	-	-	60
Course Venue and Time				Friday / 09:30 – 12:20			
Instructor information				**Cpt. Mehmet Emin Debeş** Faculty of Maritime Studies Wednesday / 09:00 - 12:00 +90 (392) 650 26 00 / 4060 mehmetemin.debes@kyrenia.edu.tr www.kyrenia.edu.tr			

Course Description	This course introduces the fundamental principles and practices of ship maneuvering and handling under various operational and environmental conditions. Students will examine the factors affecting ship maneuverability, including environmental forces, propulsion systems, and hydrodynamic effects. Topics include the use of main engines, propellers, rudders, bow and stern thrusters, and mooring lines during berthing, unberthing, and anchoring operations. The course also covers turning circles, shallow water and narrow channel effects, tug assistance, and safe maneuvering practices. Emphasis is placed on applying theoretical knowledge to practical ship-handling scenarios to ensure safety, efficiency, and compliance with international maritime regulations.
Course Aims and Objectives	• Provide students with a comprehensive understanding of the factors influencing ship maneuverability. • Develop the ability to analyze and evaluate the effects of propulsion, rudders, thrusters, and environmental conditions on ship handling. • Equip students with practical knowledge for safe and effective ship operations, including berthing, unberthing, anchoring, and maneuvering in restricted waters. • Enhance decision-making and situational awareness skills to support safe navigation and ship control. • Prepare students to apply international rules and best practices in ship maneuvering and handling.
Course Learning Outcomes	**CLO1:** Explain the fundamental principles of ship maneuvering and the factors influencing vessel handling. **CLO2:** Identify and evaluate the advantages and limitations of various propulsion systems and steering devices in ship maneuvers. **CLO3:** Analyze the effects of environmental conditions such as shallow water, narrow channels, wind, and current on ship maneuverability. **CLO4:** Demonstrate knowledge of berthing, unberthing, mooring, and anchoring procedures and techniques. **CLO5:** Interpret and apply safe ship handling practices in accordance with international maritime safety regulations. **CLO6:** Assess the role of tug assistance, mooring lines, and other operational aids in effective ship maneuvering.

	CLO7: Apply theoretical ship-handling knowledge to practical or simulated scenarios, emphasizing safety and operational efficiency. **CLO8:** Evaluate ship handling outcomes and identify potential improvements in maneuvering strategies. **CLO9:** Integrate ship handling concepts with navigational planning to optimize voyage safety. **CLO10:** Develop critical decision-making and problem-solving skills in complex ship maneuvering situations.

Content of the Course

Week	*Subject*
1	**Introduction to Ship Handling** Importance, objectives, safety considerations
2	**Factors affecting ship maneuvering** Environmental conditions & ship characteristics
3	**Propulsive Forces and Resistances** Air and water resistance in maneuvering
4	**Main engines** Effectiveness, advantages & disadvantages of different types in maneuvering
5	**Propellers** Fixed pitch, controllable pitch, right/left handed, twin-screw effects
6	**Rudder effects** Single-screw ships
7	**Rudder effects** Twin-screw ships
8	**Bow thrusters & stern thrusters** Working principles, combined use with rudder
9	**Mooring Lines in Maneuvering** During berthing, unberthing, and other line maneuvers
10	**Turning circle** Definition, tactical diameter, advance, transfer
11	**Shallow water effects** Squat phenomenon, bank effect, narrow channel navigation
12	**Anchoring methods** Safe anchoring, techniques of anchoring and securing a vessel
13	**Tug assistance** Methods of towline connection, tug operations in maneuvering
14	**Integrated maneuvering** Case studies combining propulsion, rudder, thrusters, lines, and tugs
15	**General review & Final preparation** Discussion of maneuvering scenarios, Q&A

Methods and Techniques used in the Course

Lectures and Presentations: Theoretical knowledge supported by visual materials (slides, videos, diagrams).

Case Studies: Analysis of real-life maneuvering incidents and best practices.

Classroom Discussions: Interactive sessions to enhance critical thinking and problem-solving skills.

Demonstrations: Use of ship maneuvering models, charts, and simulation-based examples.

Problem-Solving Exercises: Assignments and scenario-based questions on ship maneuvering.

Simulation Practices (if available): Application of ship handling techniques in a controlled environment to improve situational awareness and decision-making.

Sample Questions

- Define the main environmental factors affecting ship maneuvering. Provide at least three examples.
- Explain the advantages and disadvantages of fixed-pitch and controllable-pitch propellers during maneuvering.
- What is the difference between rudder effects on single-screw and twin-screw ships? Give examples.
- Describe the squat effect in shallow waters. How does it influence ship handling?
- Explain the interaction effects when a ship is navigating in narrow channels (bank suction and cushion effects).
- Draw and explain the concept of a turning circle. What are advance, transfer, and tactical diameter?
- Discuss the role of tugboats in ship maneuvering. Mention at least two methods of tug assistance.
- What are the effects of bow thrusters and stern thrusters during berthing and unberthing operations?
- Describe the appropriate procedures and precautions for anchoring in confined waters.
- Case Study: A vessel with a single right-handed fixed-pitch propeller is attempting to berth starboard side to the quay under strong crosswinds from port.
    - What challenges will the ship face?
    - Which maneuvering techniques can be applied to ensure safe berthing?

Materials Used in the Course

Textbooks and References

- Cockcroft, A. N., & Lameijer, J. N. F. *A Guide to the Collision Avoidance Rules*.
- Bertram, V. *Practical Ship Hydrodynamics*.
- Guldhammer, H., & Harvald, S. A. *Ship Resistance and Propulsion*.
- Bowditch, N. *The American Practical Navigator*.
- IMO Model Course 7.03 – *Officer in Charge of a Navigational Watch*.

International Conventions and Guidelines

- COLREG (International Regulations for Preventing Collisions at Sea).
- SOLAS Convention (Safety of Life at Sea).
- STCW Convention (Standards of Training, Certification and Watchkeeping).

Practical Tools

- Ship maneuvering simulators.
- Maneuvering booklets of various ship types.
- Nautical charts, tide tables, and pilot books.

Supplementary Materials

- Case studies on accidents/incidents related to ship handling.
- Port authority regulations and tug assistance guidelines.
- Videos and computer animations demonstrating ship maneuvers.

All the above listed books are available at UoK's Grand Library

Program Outcomes Matrix

	Program Outcomes	*Level of Contribution				Targeted Competence Areas
		0	1	2	3	
1	Demonstrate fundamental knowledge of maritime business, shipping operations, port management, and international logistics.				✓	Maritime Business & Operations
2	Apply principles of management, economics, and finance to ship operations, chartering, brokerage, and maritime organizational decision-making.				✓	Maritime Economics & Management
3	Understand and interpret international maritime law, conventions, and trade regulations including SOLAS, MARPOL, UNCLOS, and INCOTERMS.				✓	Maritime Law & Policy
4	Plan and manage port and terminal operations efficiently, considering cargo handling systems, port logistics, and intermodal transport networks.				✓	Port & Terminal Operations Management
5	Employ digital tools and data-driven approaches in ship management, fleet performance monitoring, and maritime logistics systems.				✓	Digital Maritime Operations
6	Integrate sustainability, environmental protection, and decarbonization principles into maritime and logistics operations in line with IMO GHG strategy.			✓		Sustainability & Green Shipping
7	Demonstrate competence in maritime risk assessment, safety management systems (ISM Code), and crisis response in ship and shore-based contexts.			✓		Safety & Risk Management
8	Exhibit leadership, teamwork, and communication skills necessary for multicultural and interdisciplinary maritime organizations.				✓	Leadership & Intercultural Communication
9	Apply marketing, logistics, and supply chain strategies to global shipping and maritime transport sectors.				✓	Global Logistics & Supply Chain Management
10	Prepare and analyze charter parties, bills of lading, and other shipping documents while managing cargo claims and marine insurance issues.				✓	Maritime Documentation & Insurance
11	Utilize effective business English and Maritime English for negotiation, correspondence, and documentation within international maritime contexts.			✓		Maritime Communication & Professional English
12	Demonstrate ethical awareness, corporate responsibility, and adherence to international professional standards in maritime and logistics management.			✓		Ethics & Corporate Responsibility
13	Develop research skills and analytical thinking to identify, evaluate, and solve complex problems in maritime transport and logistics systems.			✓		Analytical Thinking & Research Skills
14	Adapt to innovations such as digitalization, automation, and smart shipping technologies through continuous professional development.				✓	Innovation & Lifelong Learning
15	Apply entrepreneurship and strategic management principles to establish or develop maritime-related enterprises in a competitive global environment.			✓		Entrepreneurship & Strategic Management

***0:** No Contribution **1:** Little Contribution **2:** Partial Contribution **3:** Full Contribution

Program Outcomes /Course Learning Outcomes Matrix **Level of Contribution**:**0**-No Contribution **1**-Little Contribution **2**-Partial Contribution **3**-Full Contribution										
PO	**CLO1**	**CLO2**	**CLO3**	**CLO4**	**CLO5**	**CLO6**	**CLO7**	**CLO8**	**CLO9**	**CLO10**
PO1	3	3	2	2	3	2	2	2	2	3
PO2	2	2	2	2	2	2	2	1	2	2
PO3	2	2	3	2	2	2	3	2	3	3
PO4	1	1	2	2	2	2	2	1	2	2
PO5	3	2	3	3	3	3	3	2	3	3
PO6	2	2	2	2	2	2	2	2	2	2
PO7	1	1	2	2	1	1	2	1	2	2
PO8	1	1	1	1	1	1	1	1	1	1
PO9	1	1	1	1	1	1	1	1	1	1
PO10	2	2	2	2	2	2	2	2	2	2
PO11	1	1	2	2	2	1	2	1	2	2
PO12	1	1	1	1	1	1	1	1	1	1
PO13	1	1	2	3	3	2	1	1	1	3
PO14	1	1	2	3	3	2	1	1	1	3
PO15	1	1	2	3	3	2	1	1	1	3

Course Learning Outcomes/ Evaluation Method		
CLO	**Teaching Method**	**Assessment Method**
CLO1 – Principles of Ship Maneuvering	Lecture, Multimedia Presentation, Demonstration	Quizzes, Assignments, Participation
CLO2 – Propulsion and Steering Devices	Lecture, Case Studies, Simulation	Quizzes, Midterm Exam, Assignments
CLO3 – Effects of Water Depth, Channels, Wind, and Current	Simulation Exercises, Practical Demonstration	Simulation Assessment, Assignments, Lab Reports
CLO4 – Berthing, Unberthing, Mooring, Anchoring Techniques	Hands-on Practice, Simulation, Role Play	Practical Exams, Observation, Assignments
CLO5 – Ship Handling Compliance and Safety	Lecture, Scenario-Based Learning	Quizzes, Case Study Analysis, Assignments
CLO6 – Tug Assistance and Mooring Lines	Simulation, Practical Exercises	Practical Exams, Lab Reports, Assignments
CLO7 – Application of Ship Handling Theory	Bridge Simulation, Case Studies	Practical Exams, Simulation Reports, Assignments
CLO8 – Emergency Maneuvers and Contingency Planning	Scenario-Based Exercises, Simulation	Practical Exams, Simulation Reports, Participation
CLO9 – Integrated Maneuvering Exercises	Bridge Simulation, Group Exercises	Practical Exams, Project Reports, Observation
CLO10 – Decision Making in Ship Handling	Scenario-Based Learning, Simulation	Case Study Reports, Practical Exams, Simulation Assessment

ECTS / Workload Table			
Activities	**Number**	**Duration (Hours)**	**Total Workload**
Preparation for lectures	**15**	**1**	**15**
Lectures	**15**	**3**	**45**
Midterm Exam	**1**	**1**	**1**
Preparation for Midterm Exam	**1**	**3**	**3**
Final Exam	**1**	**1**	**1**
Preparation for Final Exam	**1**	**3**	**3**
Presentation(s)	-	-	-
Preparation for Presentation(s)	-	-	-
Research for Project(s)/Essay(s)	-	-	-
Project Writing	**1**	**5**	**5**
Group Work	**1**	**5**	**5**
In-class Discussion(s)	**15**	**1**	**15**
Quiz(es)	-	-	-
Preparation for Quiz(es)	-	-	-
Laboratory	-	-	-
Assignment(s)/Homework/Class Works	**1**	**10**	**10**
Individual Reading / Research	-	-	-
Lesson Planning	-	-	-
Materials Adaptation	-	-	-
Material Development	-	-	-
Draft Preparation	-	-	-
Drawing	-	-	-
Essay Writing	-	-	-
Tutorial(s)	-	-	-
Portfolio Preparation	-	-	-
Portfolio Presentation	-	-	-
Total Workload			**103**
ECTS Credit			**3**

Evaluation System		
Semester Requirements	**Number**	**Percentage of Grade**
Attendance/Participation	-	-
Laboratory	-	-
Application	-	-
Field Work	1	10
Special Course Internship (Work Placement)	-	-
Homework/Assignments	1	10
Providing reliability and motivation of the individual homework completion and Submission	-	-
Presentation/Jury	-	-
Project	1	10
Quiz	-	-
Midterms/Oral Exams	1	30
Final/Oral Exams	1	40
Total	**5**	**100**

	Percentage	**Course Grade**	**Coefficient**
Grading Policy	90-100	AA	4.0
	85-89	BA	3.5
	80-84	BB	3.0
	75-79	CB	2.5
	70-74	CC	2.0
	60-69	DC	1.5
	50-59	DD	1.0
	49 and below	FF	0.0
	Less than 70% attendance	NA	-
Course Requirements and Policies	• Alerted attendance at the lectures is essential! • Students are expected to check frequently the instructor's web page for the course announcements. • University of Kyrenia honor code will be strictly enforced regarding any issues concerning cheating.		