## University of Kyrenia Maritime Vocational School Maritime Transportation Management Course Contents

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
MTH101	Mathematics	(3,2,0)	4	6	Core Course

This course is designed to develop the topics of differential and integral calculus. Emphasis is placed on limits, continuity, derivatives and integrals of algebraic and transcendental functions of one variable. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to derivative-related problems with and without technology.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
MPH101	Physics I	(3,2,0)	4	5	Core Course

This course is designed to get familiar and understand conceptually topics of physics and mechanics. To apply the methods of solving elementary mechanics problems that leads to the first insights into the rudiments of related fields in engineering sciences. To analyze the kinetic problems of one dimension and two dimensions motions by using vectors. To apply the fundamental methods of motions due to applied forces. To apply and integrate the basic physical sciences and the principles of engineering sciences into working practical knowledge.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
MET101	Maritime Meteorology	(2,1,0)	2,5	5	Core Course

According to the rules of STCW, it is important to have the ability to accurately observe weather events and provide international communication and meteorological weather forecasting capabilities on board for the purpose of ensuring safe navigation and transportation. This course focuses on heat, wind, rain, clouds, precipitation, currents and meteorological processes connected with these basics.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
NAV101	Navigation I	(2,1,0)	2,5	3	Core Course

In this course, students will learn about the definition and history of navigation, the evolution of nautical instructions, the structure and rotation of the Earth, as well as the concepts of latitude and longitude. They will also be introduced to the usage, symbols, and abbreviations used in nautical charts, as well as the importance of chart corrections and notices for mariners. Additionally, the course covers topics such as distance and direction measurement, nautical publications, and specifications.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
SEA101	Seamanship I	(2,2,0)	3	4	Core Course

This course aims to teach safe and effective seamanship to the students. The contents of the course are ship types, shipboard familiarization and organization, general terms and abbreviations used in maritime and on ships, ship parts, sections, compartments and their functions, introduction to good and safe practice in routine shipboard operations such as manoeuvring, mooring, cargo and maintenance operations.

MRE101	Introduction to Marine Engineering	(2,1,0)	2,5	3	Core Course
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At the end of the second semester, students will have the opportunity to participate in a two-month summer shipboard training program. This program aims to provide students with hands-on experience and basic knowledge about ship machinery in preparation for their future internships. During this training, students will have the opportunity to work directly with ship machinery, gaining practical skills and familiarizing themselves with the operation, maintenance, and troubleshooting of various onboard systems. This valuable experience will enhance their understanding of the maritime industry and prepare them for their future careers as seafarers.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
MEL101	Electric-Electronic	(2,1,0)	2,5	3	Core Course

This course aims to provide students with a comprehensive understanding of electronic components, their characteristics, and their behavior within circuits. The course is designed for engineering students, including those who are planning to pursue careers as captains or mechanics in the maritime industry. Students will be introduced to semiconductors, diodes, and their applications in circuits. They will also learn about transistors, their functions, and how they are utilized in electronic circuits. The course further explores topics such as transistor amplifiers, field-effect transistors, feedback amplifiers, oscillators, power amplifiers, multivibrators, modulation techniques, antennas, and the propagation of electromagnetic waves.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
SAF101	Maritime Safety I	(2,3,0)	3,5	4	Core Course

The course will be carried out according to the IMO Model Courses 1.13, 1.21, 3.26, 3.27, and the national regulation "Egitim Sinav Yonergesi 2018" of the Turkish Republic. Successful students will be eligible to obtain mandatory STCW certificates of (1); Personal Safety and Social Responsibility, (2); Security Familiarization, (3); Security Awareness, (4) Designated Security Duties, and (5) Elementary First Aid. The contents of the course are; Introduction to Safety and Emergencies. Introduction to SOLAS, MARPOL, ISM and ISPS. Ship and Safety Familiarization. Safety on board and its applications. Personal safety and social responsibilities on board (Emergency Procedures, Safe Working Practices, Pollution Prevention, Effective Communication and Human Relations, Avoiding fatigue). Location, familiarisation and usage of personal life-saving appliances on board. Maritime Security Awareness and Training. Elementary first aid, including lab practice in the university hospital.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
LAW151	Introduction To Law and Maritime Law	(3,0,0)	3	4	Core Course

This course covers several important topics related to the legal framework governing maritime activities. Students will learn about the main principles and sources of maritime public law, including international conventions, treaties, and national legislation. The course delves into the law of the sea, which encompasses various aspects such as maritime jurisdiction areas, including internal waters, territorial seas, contiguous zones, exclusive economic zones (EEZ), and the continental shelf. The concept of the high seas and international disputes related to high seas activities will also be explored.

Course Code   Course Name   (T,A,L)   Credit   ECTS   Core/Elective Course	<b>Course Code</b>
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AİT101	Atatürk's Principles and History of Turkish Revolution	(0,0,0)	0	1	Core Course
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The reasons that prepared the collapse of the Ottoman Empire and the Turkish Revolution. Disintegration of the Ottoman Empire, Tripoli War, Balkan Wars, First World War. Armistice of Mudros. The situation of the country in the face of the occupations and the reaction of Mustafa Kemal Pasha, the departure of Mustafa Kemal Pasha to Samsun. The opening of the Turkish Grand National Assembly of the National Struggle. Treaty of sevre. The Lausanne Peace Treaty. Atatürk. Principles: Republicanism, Nationalism. Populism, Statism. Secularism, Revolutionism.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
MTH102	Mathematics II	(3,2,0)	4	6	Core Course

This course is designed to develop the topics of series, parametric equations, vector and surfaces, vector valued functions, partial differentiation, multiple integrals and vector calculus. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to vector calculus, parametric equations and polar coordinates, multiple integrals problems with and without technology.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
NAV102	Navigation II	(3,2,0)	4	5	Core Course

In this introductory course on navigation, students will gain a fundamental understanding of the principles and techniques used in navigating at sea. The course will cover various topics related to terrestrial navigation, chart usage, compasses, nautical instruments, and navigation aids. The course will begin with an overview of terrestrial navigation, including the concepts of traverse and latitude. Students will learn about different methods of terrestrial navigation and the practical application of tools such as Mercator charts and Norrie's Table in navigation.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
SEA102	Seamanship II	(2,2,0)	3	3	Core Course

In this course, students will gain a comprehensive understanding of conducting good and safe practices in routine shipboard operations such as mooring, cargo and maintenance operations. The contents of the course are types and dimensions of ropes, knots and their applications, mooring systems, windlass, anchors and chains. Ship structure (tanks, cargo holds, hatch and hatch covers, bilge and ballast systems, frames, beams, bulkheads, keel and decks). Maintenance plan and applications (painting, chipping, rust removing, cleaning and repairing procedures and techniques)

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
WAT101	Standards of Watchkeeping I	(2,1,0)	2,5	3	Core Course

In this course, participants will gain a comprehensive understanding of the rules and regulations for combat prevention at sea. They will learn about the importance of maintaining a safe and secure environment on board a ship to prevent potential conflicts and ensure the safety of the crew and vessel. The course will cover ship reporting systems, including the procedures and protocols for reporting to relevant services such as the Vessel Traffic Services (VTS). Participants will learn how to effectively communicate and exchange information with these services to ensure safe navigation and avoid any potential hazards or collisions. Over-Bridge Resource Management (BRM) will be a key topic covered in the course. Participants will learn how to effectively manage and utilize all available resources on the ship's bridge, including personnel, equipment, and information, to enhance situational awareness and decision-making during various navigational scenarios.

Course Code	Course Name	(T,A,L)	Credit	<b>ECTS</b>	<b>Core/Elective Course</b>
SAF102	Maritime Safety II	(2,1,0)	2,5	3	Core Course

The course will be carried out according to the IMO Model Courses 1.19, 1.20, 1.23, and the national regulation "Egitim Sinav Yonergesi 2018" of the Turkish Republic. Successful students will be eligible to obtain mandatory STCW certificates of (1); Personal Survival Techniques, (2); Fire Prevention and Fire Fighting, (3); Proficiency in Survival Crafts and Rescue Boats (Other than Fast Rescue Boats). The contents of the course are; Mustering in emergencies onboard. The operation, maintenance, launching and recovery of Survival Crafts and Rescue Boats. Evacuation procedures and survival techniques at sea. Dangers, life and best practices in survival crafts. Preventing and fighting fire onboard. Firefighting methods, operation and maintenance of the firefighting equipment.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	<b>Core/Elective Course</b>
NRC102	Ship Construction	(2,2,0)	3	4	Core Course

In this course, students will acquire knowledge about the construction and general arrangement of ships and various components of the vessel. They will learn about the layout and design of the ship, including the arrangement of holds, engine room, peak tanks, double-bottom tanks, hatchways, bulkheads, cargo tanks, deck plating, frames, brackets, transverse frames, deck beams, shell plating, and other relevant structural elements. Additionally,this course will provide students with a comprehensive understanding of the minimum requirements for training seafarers on tanker ships, as specified by the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers (STCW). They will learn about the essential knowledge and skills needed to operate and work on tanker vessels safely and efficiently.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
NAV151	Electronics Aids to Navigation I	(2,2,0)	3	4	Core Course

In this course, students will learn about electronic equipment used in navigation such as Gyro compass, GPS, AIS, ECDIS, RADAR, ARPA, VDR, NAVTEX, Faximile, Autopilot and steering systems, Acoustic systems (SONAR, Echo Sounder), Speed and Distance Log, BNWAS, etc. Students will learn their essential operation and purpose for proper ship navigation.

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PED102	Physical Education	(0,2,0)	1	1	Core Course

This couse is designed to improve the physical fitness of the students which will help them during their seagoing training for better adaptation and maintaining good physical condition.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
CMP152	Computer Programming	(2,2,0)	3	3	Core Course

This course is designed to give students an understanding of how a computer works its capabilities, limitations, and applications. This course is intended as a first computer course and it is not assumed that the student has background knowledge on the subject. The course will focus on theoretical issues during the first period, followed by application and hands-on skills.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
WAT202	Standards of Watchkeeping II	(2,2,0)	3	4	Core Course

The officer in charge of a navigational watch holds significant responsibilities in ensuring the safety of the vessel. One of their primary duties is to prevent collisions and avoid grounding. They are expected to be knowledgeable about the principles of watchkeeping and proficient in the use and control of navigational equipment. When handing over and taking over watch, proper communication and coordination are essential. The officer should effectively communicate with the incoming and outgoing watchkeepers to ensure a smooth transition and maintain situational awareness. They must also be familiar with navigation procedures when operating with a pilot on board, including coastal navigation and the use of radar in poor visibility conditions.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	<b>Core/Elective Course</b>
NAV213	Navigation III	(3,2,0)	4	5	Core Course

In the course students will be introduced to important procedures and techniques involved in navigating along the coast and planning voyages. They will learn about the specific procedures to be followed when navigating in coastal areas, traffic separation zones, straits, and when operating near coasts and in restricted visibility conditions. The course will cover the calculation of the effects of currents and wind on the ship's course and speed. Sailors will also gain an understanding of the basic theory of tides, including spring tides and neap tides, and their impact on navigation. They will learn how to solve tidal problems and calculate tidal streams for main and secondary ports. The course will introduce the concept of the navigational triangle for solving current-related navigation problems.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
MEN201	Maritime English I	(2,2,0)	3	4	Core Course

The topics covered in this course include various aspects related to ships, maritime safety, commercial marine business, technical management for mariners, port authority and maritime law, ship and cargo documents, ship registration, ship maintenance and repair, inspection surveys, communication protocols, emergency and safety messages, and medical emergency communications.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
NAV252	Electronic Aids to Navigation II	(2,2,0)	3	4	Core Course

This course is focused on the fundamental principles and practical aspects of radar systems used in navigation (RADAR, ARPA, ECDIS). Students will learnbout fundamental principles, operation and maintenance of these systems. They will gain an understanding of the types of these systems, their capabilities, and limitations.. Students will learn how to effectively interpret and utilize radar information from RADAR, ARPA and ECDIS for navigational purposes.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
CRG201	Cargo Handling and Operations	(2,2,0)	3	4	Core Course

This course covers various aspects related to the handling, stowage, and transportation of different types of cargoes on board ships, including dry cargoes and tanker operations. Students will learn about the inspection and preparation of cargo holds, segregation and separation of different types of cargoes to prevent contamination, and securing cargoes to ensure safe transportation. The course will also cover topics such as ventilation and control of sweat in cargo holds, handling of deck cargoes, refrigerated cargoes, and containerized cargoes.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
COM201	Maritime Communication	(2,2,0)	3	4	Core Course

The course emphasizes the classification, instruments, and procedures of maritime communications. Students will learn about different communication systems and technologies used in the maritime industry, including radio communications, satellite communications, electronic and digital messaging systems. They will also study the International Procedures and regulations governing maritime communications for merchant ships in both port and navigation settings, under normal and emergency conditions.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	<b>Core/Elective Course</b>
GMS201	GMDSS Simulation	(1,3,0)	2,5	3	Core Course

This course focuses on providing students with practical training in distress, urgency, safety, and routine communication procedures using GMDSS simulators and actual radio equipment. Students will participate in exercises that simulate distress situations, allowing them to practice the proper protocols and procedures for initiating and handling distress calls. They will also learn about urgency and safety communications, understanding how to effectively transmit and receive relevant information in different scenarios.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
NRC202	Ship Stability	(3,1,0)	3,5	4	Core Course

This course covers various aspects related to ship design, dimensions, stability, and strength. Students will learn about ship dimensions, such as length overall (LOA), beam, draft, and depth. Ship stability, forces and monents that affecting the ship'stability. They will understand how these dimensions and stability affect the performance and characteristics of a ship. The course also introduces ship tonnages, such as gross tonnage (GT) and net tonnage (NT), and explains their significance in terms of ship registration and regulatory requirements.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
LAW251	Maritime law and International Maritime Conventions	(2,2,0)	3	4	Core Course

In this module on the international law of the sea, students will be introduced to the comprehensive legal framework governing maritime activities. The module covers various aspects of international law related to the sea, including jurisdictional zones and principles recognized in international law. The module begins by exploring the principles and regulations governing the territorial sea, archipelagic waters, international straits, contiguous zone, continental shelf, exclusive economic zone (EEZ), high seas, and deep seabed. Students will examine the rights and responsibilities of coastal states and the legal implications of these different maritime zones. The module also delves into the resolution of competing claims to maritime areas and resources. Students will learn about the methods and mechanisms available for resolving disputes between states concerning maritime boundaries and resource exploitation.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
NAV214	Navigation IV	(3,2,0)	3,5	4	Core Course

In this course students will be introduced to the time zones (GMT, LMT), coordinate sytems, and celestial naigation which involves using celestial bodies such as the sun, moon, stars, and planets for determining the position of the vessel. Students will earn about the principles, techniques, and calculations involved in celestial navigation.

Course Code	Course Name	(T,A,L)	Credit	<b>ECTS</b>	Core/Elective Course
SAF214	Maritime Safety III	(2,2,0)	3	5	Core Course

The course will be carried out according to the IMO Model Courses 1.24, 1.28, and the national regulation "Egitim Sinav Yonergesi 2018" of the Turkish Republic. Successful students will be eligible to obtain mandatory STCW certificates of (1); Proficiency in Fast Rescue Boat, (2); Crowd Management, Passenger Safety and Safety Training for Personnel Providing Direct Services to Passengers in Passenger Spaces. The contents of the course are; Assisting passengers for assembling in Muster Stations in emergencies. The operation, maintenance, launching and recovery methods of the Fast Rescue Boats. Abandoning Ship / Evacuation Procedures in cargo and passenger ships. Evacuation procedures and survival techniques at sea.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
ENG210	Maritime English II	(2,2,0)	3	4	Core Course

In this course, students will learn the IMO standard marine communication phrases used in ship-to-shore and shore-to-ship written communications. They will be trained in preparing reports, writing Notices of Readiness (NOR), and drafting sea protests. The course is designed to meet the requirements of the STCW/95 Convention Chapter II Section A-II/1, which focuses on developing the necessary Maritime English skills to support navigation at the operational level. By the end of the course, students will have a solid understanding of effective written communication in the maritime industry and be able to apply these skills in practical scenarios.

Course Code	Course Name	(T,A,L)	Credit	<b>ECTS</b>	Core/Elective Course
SIM201	Simulator (ARPA /ECDIS)	(1,4,0)	3	4	Core Course

This course focuses on providing students with the knowledge and skills necessary to effectively utilize these advanced navigation systems and implement Bridge Team Management principles. Students will learn about the acquisition of targets, tracking capabilities, and limitations of ARPA, ECDIS, and BTM systems. They will understand the setup and potential errors in interpreting data displayed on these systems.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
SWM201	Swimming	(0,2,0)	1	2	Core Course

The course "Swimming Principles and Practical Application" focuses on teaching students the essential principles of swimming and providing practical training in a pool environment. The primary objective of this course is to ensure that seafarers possess the necessary swimming skills and water survival techniques in case of emergencies or dangerous situations at sea, such as fires or abandoning the ship. Swimming proficiency is crucial for the safety and survival of seafarers during such incidents.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
TUR202	Turkish Language	(0,0,0)	0	2	Core Course

Reading passages related to the chapter; grammar studies; vocabulary and translation activities; listening activities; debates on current issues related to the department (Repetition of tenses, Internet history, Health and medicine, passive frameworks, social issues, Environmental issues, Repetition of modals, Law and punishment, repetition of adjective phrases, Language and Literature, Repetition of noun phrases.

Course Code	Course Name	(T,A,L)	Credit	ECTS	Core/Elective Course
SHA201	Shiphandling and Maneuvering	(1,1,0)	1,5	2	Core Course

The course "Ship Handling and Maneuvering" focuses on providing students with a comprehensive understanding of ship handling principles and techniques in various scenarios and environmental conditions. Students will learn about the effects of various factors on ship handling, including deadweight, draught, trim, speed, and under-keel clearance. They will understand how these variables influence turning circles and stopping distances of a vessel.

<b>Course Code</b>	Course Name	(T,A,L)	Credit	ECTS	<b>Core/Elective Course</b>
FGP299	Final Graduation Project	(0,4,0)	2	4	Core Course

In this course, students will engage in theoretical and technological investigations to solve a well-defined problem in their field of study. They will conduct research, analyze data, and apply relevant theories and technologies to address the problem at hand. The focus is on practical problem-solving and finding innovative solutions. Once the problem has been successfully solved, students will be required to present their findings using visual tools. This may include creating graphs, charts, diagrams, or other visual representations to effectively communicate their results. The objective is to present the research outcomes in a clear and visually appealing manner that facilitates understanding and engages the audience. By combining theoretical knowledge, technological expertise, and effective visual presentation skills, students will not only demonstrate their understanding of the subject matter but also showcase their ability to apply their knowledge to real-world problems and communicate their findings effectively.