

DEPARTMENT OF TRANSPORTATION STUDIES

Undergraduate Degree(s):

- Aviation Science Management (Aviation Science Management Concentration), Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/aviation-science-technology-aviation-science-management-track-bs/>)
- Aviation Science Management (Professional Pilot Concentration), Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/aviation-science-management-professional-pilot-concentration-bs/>)
- Bachelor of Science in Maritime Transportation Management and Security (with Minor) (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/maritime-transportation-management-security-minor-bs/>)
- Bachelor of Science in Maritime Transportation Management and Security for Transfer Students with AAS Logistics & Global Supply Chain Management Maritime Specialization (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/maritime-transportation-management-security-transfer-students-aas-logistics-global-supply-chain-management-maritime-specialization-bs/>)
- Bachelor of Science in Maritime Transportation Management and Security (Without Minor) (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/maritime-transportation-management-security-without-minor-bs/>)

Minor(s):

- Maritime Transportation Management and Security (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/maritime-transportation-management-security-minor/>)
- Aviation Science Management Minor (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/aviation-science-technology-aviation-science-management-minor/>)

The Department of Transportation Studies has a mission to provide comprehensive transportation education that builds on the latest data, systems and technologies. The Department of Transportation Studies offers undergraduate courses in the following two disciplines: Aviation Science Management (AVSM) and Maritime Transportation Management and Security (MTMS). Through curricular offerings provided, students can earn a Bachelor of Science (B.S.) degree in Aviation Science Management with Aviation Science Management Concentration, a Bachelor of Science (B.S.) degree in Aviation Science Management with Pilot Concentration, or a Bachelor of Science (B.S.) degree in Maritime Transportation Management and Security. An undergraduate minor is offered in Maritime Transportation Management and Security for students majoring in other academic disciplines. Members of the Department are housed in the College of Science and Technology.

The department also offers a Master of Science (M.S.) degree in Transportation Planning and Management. For detailed information

about the Master of Science in Transportation Planning and Management program, students should refer to the Graduate School Bulletin of Texas Southern University. For information on the Master of Science in Transportation Planning and Management [click here](#).

Aviation Science and Technology

The mission of the Aviation program is to prepare students with the foundational knowledge required to develop and function as aviation professionals. Specifically, our mission is to prepare our majors with the base knowledge and skills for graduate study and entering the workforce as entry level aviation professions. The Department offers a Bachelor of Science degree in Aviation Science Management with two concentrations: (1) Management and (2) Professional Pilot.

The Aviation Science Management Degree provides a strong foundation for a career as a manager in the aviation infrastructure. The curriculum provides skills in management, communications, and research to prepare students for leadership positions in the field of aviation management. The last two years of matriculation include extensive professional-level Aviation Science Technology and Management courses whereby students shall develop critical thinking and problem solving skills. The degree in Aviation Science Management is accredited by the Association of Technology, Management, and Applied Engineering (ATMAE).

The Aviation Science Management Degree with the Professional Pilot Concentration leads to the accomplishment of an academic degree and a professional pilot license, providing opportunities for employment in the aviation industry for graduates. The degree with flight concentration is designed to prepare students for several career options that include: private pilot, professional pilot, and certified flight instructor. The flight concentration is a Federal Aviation Administration Part 141-approved program.

Veterans must submit a copy of their DD214 form to the Texas Southern University Office of Veteran Affairs in order to receive academic credit for military courses recommended by the American Council on Education. Students with prior Aviation flight training must present certification to the department Chair for credit evaluation. Individuals possessing a private pilot, commercial, and instrument license can receive credit for flight training upon evaluation by the department chair. Transfer of credit from another institution to Texas Southern University involves consideration of accreditation, comparability of course work, and applicability of that course work to a degree program at the University.

DEGREE REQUIREMENTS

The Bachelor of Science (B.S.) degree in Aviation Science Management is earned by the successful completion of a 120 credit hours (minimum) including 44 hours of general education core courses and other courses as established by Texas Southern University and approved by the Texas Higher Education Coordinating Board, 76 hours of courses as defined by the Department of Aviation Science and Technology. All coursework representing the 76 hours of courses as defined by the Department of Aviation Science and Technology leading to the B.S. Degree in Aviation Science Management must be earned with a grade of "C" or better, where grades of "C-" or below are unacceptable. For a minor in Aviation Science Management, eighteen (18) semester hours are required. Students pursuing a minor in Aviation Science Management must have a grade point average of 2.50 or better and visit with the Department Chair prior to enrolling in courses.

For further information, please contact the department of Aviation Science and Technology at (713) 313-1846 or come to Room 301 of the Spearman Technology Building.

Maritime Transportation Management and Security

The curriculum of study for the Bachelor of Science (B.S.) in **Maritime Transportation Management and Security** provides students with three concentrations: Logistics/Freight, Security, and Environment. A detailed listing of these requirements is given below. **Students selecting to pursue the B.S. in Maritime Transportation Management and Security are not required to declare a minor in another academic discipline. However, there is a degree plan for students who desire to choose a minor. Additionally, grades of "C" or better must be earned in all Maritime Transportation Management and Security courses required leading to the completion of the degree. Grades of "C-" are unacceptable. Prior to graduation, majors must pass an exit examination during their senior year.**

The mission of the B.S. Program in **Maritime Transportation Management and Security** is fourfold:

1. to produce graduates for a variety of administrative and managerial positions in maritime transportation and port operations,
2. to produce graduates to function effectively in a number of diverse careers in three critical areas of maritime transportation: logistics, security, and environment,
3. to provide students with the academic background and preparation for pursuing advanced studies in the field of maritime transportation or affiliated areas,
4. to provide training programs and individual courses to individuals already in the maritime profession.

In the fulfillment of this mission, students selecting the Maritime Transportation Management and Security program as a major will be prepared for a number of career specialization options including but not limited to:

- Freight Logistics Specialist
- Shipping Manager
- Port Manager and Operator
- Port Security Officer
- Maritime Policy Maker
- Maritime Transportation Planner
- Environmental Compliance Coordinator/Specialist
- Emergency Response Specialist

To that end, graduates of the Maritime Transportation program will also be academically prepared for graduate studies in the discipline of maritime.

DEGREE REQUIREMENTS

Students wishing to pursue the B.S. in **Maritime Transportation Management and Security** must first gain admission to the University, must satisfy ASSET requirements and eradicate identified deficiencies through the General University Academic Center (GUAC), must contact the Department Office while satisfying ASSET requirements for advisement, and must petition the Department for admission once ASSET requirements have been completed and deficiencies removed. **Students wishing to change their major to Maritime Transportation Management**

and Security must be in good academic standing (not on academic probation, academic monitoring or suspension).

In addition to academic course work, a student pursuing the B.S. in **Maritime Transportation Management and Security** must undertake a three semester credit hour Practicum (Internship) (MTMS 495) to meet degree requirements and gain practical experience. For further information on internships, students should contact either the Internship Coordinator in the College of Science and Technology, the Office of the Dean of the College of Science and Technology, or the University Director of Cooperative Education in the Placement Center at the University.

For additional information on the Bachelor of Science in Maritime Transportation Management and Security, students are asked to contact the Department Office at (713)-313-1841.

- Aviation Science Management (Aviation Science Management Concentration), Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/aviation-science-technology-aviation-science-management-track-bs/>)
- Aviation Science Management (Professional Pilot Concentration), Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/aviation-science-management-professional-pilot-concentration-bs/>)
- Aviation Science Management Minor (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/aviation-science-technology-aviation-science-management-minor/>)
- Maritime Transportation Management and Security (with Minor), Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/maritime-transportation-management-security-minor-bs/>)
- Maritime Transportation Management and Security for Transfer Students with AAS Logistics & Global Supply Chain Management Maritime Specialization, Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/maritime-transportation-management-security-transfer-students-aas-logistics-global-supply-chain-management-maritime-specialization-bs/>)
- Maritime Transportation Management and Security Minor (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/maritime-transportation-management-security-minor/>)
- Maritime Transportation Management and Security (Without Minor), Bachelor of Science (<https://catalog.tsu.edu/undergraduate/schools-colleges/science-engineering-technology/transportation-studies/maritime-transportation-management-security-without-minor-bs/>)

AVIATION SCIENCE MANAGEMENT

AVST 105 Private Pilot Flight (3 Credits)

Lecture: 3

Private Pilot Flight (3) This course prepares the student for the FAA Private Pilot Practical Examination. Successful completion of this course will permit the student to perform as pilot in command of single engine aircraft transport of passengers or property without recompense, whether fees or employment. Three hours of lecture per week. FAA approved.

Prerequisite: AVST103. Co-requisite: AVST105L

Prerequisite(s): (AWS 103)

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 200 Basics of Communications (3 Credits)

Lecture: 3

Basics of Communications (3) In accordance with FAA orders 7110.65 and 7110.10, the student will identify basic radio and interphone communications, ICAO phonetics, numbers usage, basic phraseology, coordination procedures, purpose and steps of the position relief briefing. Three hours of lecture per week.

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 203 Introduction to Air Traffic Control (3 Credits)

Lecture: 3

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 222 Laws & Ethics in HSEM (3 Credits)

Lecture: 3

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 311 Intermediate Flight Practicum (3 Credits)

Lab: 3

Course is required for students to accumulate flight hours and experience. Consists of 36 hours of total flying time, to include 25 hours of solo instruction and 11 hours of dual flying time. Instruction shall be accomplished in an approved single engine fixed gear aircraft. 5 hours of pre-flight and post-flight instruction and briefing.

Prerequisite(s): (AVST 105 and AVST 105L)

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 313 Int Flight Theory (3 Credits)

Lecture: 3

International Flight Theory (3) This course provides descriptions and familiarization of large transport category aircraft and their on-board systems from electrical power systems to oxygen systems, to communication systems, and beyond. This course also contains general information and guidance for operators planning oceanic flights, including authorizations needed for operations outside the continental United States. This includes Special Areas of Operation (SAO) such as North Atlantic Minimum Navigation Performance Specifications (NAT/MNPS), Reduced Vertical Separation Minimums (RVSM), Area Navigation (RNAV), and Required Navigation Performance (RNP) air space. Prerequisite: AVST 312.

Prerequisite(s): (AVST 312)

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 325 Airport Design & Operation (3 Credits)

Lecture: 3

Airport Design and Operation (3) The study of planning, design construction of airports. Three hours of lecture per week.

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 345 Principles Aviation Property (3 Credits)

Lecture: 3

Principles of Aviation Property (3) Study of the processes of planning, organizing, directing, and controlling aviation property at fixed based operations. Three hours of lecture per week. Prerequisite: AVST 371.

Prerequisite(s): (AVST 371)

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 380 Flight Instruction Airplane (3 Credits)

Lecture: 3

Flight Instruction Airplane (3) This course is a study of the fundamental so far plane flight instruction involving educational principles of the learning and teaching process, communication, teaching methods, critiquing, evaluating, and planning instruction activity. Three hours of lecture per week. Prerequisite: AVST 315.

Prerequisite(s): AVST 380L (may be taken concurrently)

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 380L Certified Flight Instructor-Airplane Lab (1 Credits)

Lab: 1

Provides student the flight time and instruction needed to demonstrate, teach, and evaluate their performance in all maneuvers and operations required to earn the Private Pilot Commercial Pilot Certificates. 1.00 credit hour.

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 402 Effective HSEM CM & Leadership (3 Credits)

Lecture: 3

Effective HSEM Communications & Leadership (3) Prepares future aviation professionals with communication and leadership skills to fulfill team-building roles with government and non-government agencies during times of aviation disasters. Three hours of lecture per week. Prerequisite or Co-requisite: AVST 310.

Prerequisite(s): (AVST 310)

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 408 Multi Engine-CFI (3 Credits)

Lecture: 3

Provides the student with the flight time and instructions to demonstrate, teach and evaluate performance of students in all maneuvers and operations required to earn the FAA Multiengine Rating. 1.00 Credit hour.

Prerequisite(s): AVST 408L (may be taken concurrently)

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 408L Multi Engine CFI lab (1 Credits)

Lab: 1

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

AVST 425 Flight Physiology (3 Credits)**Lecture:** 3

Flight Physiology (3) A study of the causes, symptoms, treatment, and prevention of medical issues associated with flight. Three hours of lecture per week. Prerequisite: AVST 105, AVST 105L, and AVST 315.

Prerequisite(s): (AVST 105 and AVST 105L and AVST 315)**College/School:** Col of Science, Engr & Tech**Department:** Dept of TransportStud

Maritime Transportation Management and Security

MTMS 101 Intro to Maritime Transp (3 Credits)**Lecture:** 3

Introduction to Maritime Transportation (3) This course presents an introduction to the interdisciplinary study of maritime-related topics with an examination of the physical maritime environment and maritime cultures, history, and industries. Students enrolled in this course will learn what maritime transportation consists of, how it operates, how it is characterized economically, and how it is regulated. Three hours of lecture per week.

College/School: Col of Science, Engr & Tech**Department:** Dept of TransportStud**MTMS 102 Into To Logistics (3 Credits)****Lecture:** 3

This course presents problems and issues related to Logistics. Specially the description of the course includes functions, processes and objective of the logistics operation. Industrial distributor and its relationship to other channel members. It is designed to acquaint the student with the basic logistical functions (warehousing, inventory control, order processing, customer service, packaging and transportation). Explores techniques used in analyzing distribution costs as well as planning distribution systems.

College/School: Col of Science, Engr & Tech**Department:** Dept of TransportStud**MTMS 121 Overview International Business and Ocean Ship (3 Credits)****Lecture:** 3

This course gives an overview of the global business environment and its implications for operations, management, pricing promotion, financial strategies. It also introduces the maritime capabilities in facilitation of contemporary supply chains, the liner and tramp segments of the international marine transportation industry, and their role in international trade. Three hours of lecture per week.

College/School: Col of Science, Engr & Tech**Department:** Dept of TransportStud**MTMS 202 Maritime Law (3 Credits)****Lecture:** 3

Maritime Law (3) This course covers the process involved in the exercise of jurisdiction by nations over the maritime area. It presents the roles of major global shipping on nations' maritime policy, with special emphasis on past and present maritime legislation, business regulations, corporate governance issues, and related case studies. Three hours of lecture per week.

College/School: Col of Science, Engr & Tech**Department:** Dept of TransportStud**MTMS 295 Field Work Practice Logistic I Management (3 Credits)****Lecture:** 3

This course provides students with field work opportunities to gain hands-on experience in various Logistic and materials management related work. Students enrolled in this course are required to submit a written report of the practicum or project experience, detailing the specific tasks performed. Three hours of lecture per week.

College/School: Col of Science, Engr & Tech**Department:** Dept of TransportStud**MTMS 303 American Maritime History (3 Credits)****Lecture:** 3

American Maritime History (3) This course presents the development of American maritime enterprise from colonial times to the era of the container ship, and its relationship to American political, economic, and cultural history. Three hours of lecture per week.

College/School: Col of Science, Engr & Tech**Department:** Dept of TransportStud**MTMS 321 Intl Business & Ocean Shipping (3 Credits)****Lecture:** 3

International Business and Ocean Shipping (3) This course presents the global business environment and its implications for operations, management, pricing, promotion, and financial strategies. It also presents the maritime capabilities in facilitation of contemporary supply chains, the liner and tramp segments of the international marine transportation industry, and their role in international trade. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101**College/School:** Col of Science, Engr & Tech**Department:** Dept of TransportStud**MTMS 322 Port & Terminal Operation Mgmt (3 Credits)****Lecture:** 3

Port and Terminal Operation Management (3) This course provides an overview of the history, growth, organization, and operation of major ports and transportation terminals, including logistics processes such as on-dock rail, strategic and tactical planning, harbor drayage, terminal gate protocols, equipment and cargo movement, and integration of marine port and terminal operations with other modes of transportation. It introduces the functions of the port divided along business lines, different types of marine terminals, and the day-to-day operational, financial, and labor issues of ports and terminals. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101**College/School:** Col of Science, Engr & Tech**Department:** Dept of TransportStud**MTMS 341 Maritime Security Mgmt (3 Credits)****Lecture:** 3

Maritime Security Management (3) This course provides the basic framework and knowledge to perform the duties and responsibilities of a Company Security Officer (CSO), Port Facility Security Officer (PFSO), or Ship Security Officer (SSO) as defined by the ISPS Code. It presents how to implement and maintain a security plan and how to work with other security officer. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101**College/School:** Col of Science, Engr & Tech**Department:** Dept of TransportStud

MTMS 342 Maritime Security Technology (3 Credits)**Lecture: 3**

Maritime Security Technology (3) This course explores the implications and consequences of the scientific and technological issues in terms of maritime security in the social and political context. It presents instruction and discussion on current security issues and technologies. For example, containers now coming out of a port terminal are scanned for radiation; what can the scanners detect and if radiation is detected, what does that mean? How would a city be evacuated in the event a nuclear device was detected? Another example of technology with far reaching implications is that of biometrics: suppose everybody had their retina patterns in a national database? When is personal information too intrusive for government access? Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 361 Maritime Environment Mgmt (3 Credits)**Lecture: 3**

Maritime Environmental Management (3) This course presents an overview of the basic environment regulations as they pertain to the maritime industry. The environmental management strategies (EMS) to be covered include knowing the fundamental structure of environmental strategies, EMS alternatives, alternative dispute resolution, how an effective EMS can reduce costs and increase profits, and what environmental laws may be triggered by relevant activities. Sections of the following laws pertaining specifically to Vessel Operations are used: MARPOL, Resource Conservation and Recovery Act, Clean Water Act, Montreal Protocol, and State Statutes. Three lecture hours per week. Pre-requisite MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 423 Marine Cargo Operations (3 Credits)**Lecture: 3**

Marine Cargo Operations (3) This course is an introduction to the objectives and problems with break-bulk cargo handling during loading, discharging, and in-transit carriage. It presents the role of the ship in integrated transportation systems, the methods of cargo loss prevention, and the maximum cargo efficiency with relation to space, cargo gear, crew, and labor costs. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 424 Contain & Modern Cargo Storage (3 Credits)**Lecture: 3**

Containerization and Modern Cargo Storage (3) This course presents the principles and regulations for transporting special refrigerated and hazardous cargo. It addresses the security of shipments from a regulatory, operational, and global business perspective. Students enrolled in this course will be trained to identify dangerous goods and know that they are to be stowed and separated according to the requirements. Students will also learn the hazards related to bulk cargoes and the precaution to take during their loading and carriage. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 425 Int'l Intermodal Transport (3 Credits)**Lecture: 3**

International Intermodal Transportation (3) This course is designed to examine the modern inter-modal transportation and distribution systems used in the movement of international and domestic cargo. It presents the evolution, development, and use of rail, air, truck, and maritime transportation systems, and their dynamic impacts on international trade. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 443 Maritime Trnsp Security (3 Credits)**Lecture: 3**

Maritime Transportation Security (3) This course focuses on the International Ship and Port Security Code (ISPS) and domestic maritime security policies. It presents an introduction of port and ship vulnerability assessments, security plan implementation procedures, various levels of shipboard security responsibilities, and security administration. It also explores elements of chemical, biological and radiological defense (CBRD), and crisis management. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 444 Contemp Maritime Security (3 Credits)**Lecture: 3**

Lectures in Contemporary Maritime Security Issues (3) This course invites prominent experts in maritime and intermodal security to give special lectures on various topical issues of the day in their field of security. Students enrolled in this course are required to submit a term paper that integrates the information from different speakers and their research project experience. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 445 Maritime Risk Assessmnt & Mgmt (3 Credits)**Lecture: 3**

Maritime Risk Assessment and Management (3) This course is designed to develop the concepts required for maritime risk-based planning and analysis, and the methods used to conduct vulnerability assessment for natural disaster, technological hazards, and terrorist threats. The topics to be covered included: 1) Introduction and Analysis, such as Process Descriptions, Hazard Identification, Source Models, Consequence Analysis; 2) Assessment, such as Exposure Assessment, Does Response and Risk Characterization, Radiation Risk Assessment, Environmental Assessment; and 3) Management, such as Structural Activity Relationships, Risk Management, ISO 14000. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 446 Maritime Risk&Resiliency Analy (3 Credits)**Lecture: 3**

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 447 MRTM Big Data Analytics & Security (3 Credits)**Lecture:** 3

This course is designed to provide undergraduate students majoring in Maritime Transportation Management and Security an overview of maritime big data and its role in improving maritime security. It also presents an introduction to the big data analytics for the maritime big data and its importance in improving the maritime security. The course will be 3 credit hours.

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 462 Marine Environmental Project (3 Credits)**Lecture:** 3

Marine Environmental Protection (3) This course offers an interdisciplinary approach to ways in which human beings control adverse effects to the marine environment. It presents various environmental situations and the methods of applying scientific knowledge about the coastal areas to the human, economic, and political dimension. Three lecture hours per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 463 Maritime Environmental Law (3 Credits)**Lecture:** 3

Maritime Environmental Law (3) This course is designed to familiarize students with the concepts and mechanisms of international and U.S. federal environmental law and policy. It presents the role of the American legal system as it functions to control and remediate maritime environmental problems and evaluates the opportunities to use judicial, administrative, and legislative processes to address those problems. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 481 Sem In Int'l Maritime Business (3 Credits)**Lecture:** 3

Seminar in International Maritime Business (3) This course provides an opportunity for students and the instructor to discuss the effects of multinational operations on business strategy and decision making by exploring the economic, political, financial, legal, and social nature of the international environment. It examines maritime and transport related formulation, selection, and implementation of multi-national strategies in the context of business environment. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 482 Advanced Transportation Mgmt (3 Credits)**Lecture:** 3

Advanced Transportation Management (3) This course presents perspectives on carrier organization and management. It examines national transportation policy, regulation, and the changing environment of transportation. Topics to be covered include transportation operations, marketing, financing, purchasing, information systems and maintenance, as well as human resources management and labor relations. Students enrolled in this course are required to involve in original research on problems in transportation management with emphasis on maritime transportation. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 483 Maritime Studies SR. Seminar (3 Credits)**Lecture:** 3

Maritime Studies Senior Seminar (3) This course facilitates discussions between students, the instructor, and invited speakers to discuss topical themes related to diverse aspects of society and commerce in coastal and oceanic zones, the maritime experience, and the political, economical, cultural, and environmental perspectives of maritime management. Three hours of lecture per week. Pre-requisite: MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 490 Indep Study in Marit Transp (3 Credits)**Lecture:** 3

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud

MTMS 495 Field Work Prac In Marit Trnsp (3 Credits)**Lecture:** 3

Field Work Practicum in Maritime Transportation (3) This course provides students with field work opportunities to gain hands-on experience in various maritime transportation related work. Students enrolled in this course are required to submit a written report of the practicum or project experience, detailing the specific tasks performed. Three hours of lecture per week. Pre-requisite : MTMS 101 with a grade of "C" or better.

Prerequisite(s): MTMS 101

College/School: Col of Science, Engr & Tech

Department: Dept of TransportStud