

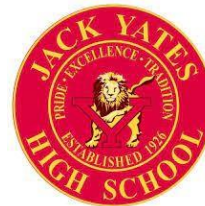
Maritime Science I

Mr. Paul Judice

My Welcome: Welcome to Introduction to Maritime Science I. It is my distinct pleasure to be your instructor this semester! This course will provide you with the tools to help you be successful in high school, college and after. Take this course seriously because it could be one of the most important courses you take throughout your academic career. One of my goals this semester is to help you feel confident as you embark upon the rest of your studies. I will guide you, cheer for you, coach you, and hold you accountable. This class as well as your other courses will require time management.

Course Description: Maritime Science I provides training for entry-level employment and a basis for continuing education in deck and piloting careers and merchant mariner credentialing. Students will build on the foundational knowledge acquired in the Principles of Maritime Science course. Maritime Science I will instruct students in progressing aspects of vessel piloting and navigation, safety of life at sea, voyage planning, shipboard damage control and marine pollution. Specifically, students will understand safety expectations, laws, and environmental and human factors involved in the maritime industry. The course focuses on lab assignments and simulator experiences to reinforce critical-thinking and decision-making skills in navigation, ship handling, collision avoidance, and risk assessment and mitigation. Navigation instruction, including chart preparation, various distance, speed, and time relationships, positioning techniques, calculation of tides and currents, and voyage planning, and aids to navigation, will be explored. Students will learn basic shipboard damage control actions required in the event of shipboard casualties, search and rescue, advancements, collateral duties, and other personnel management issues.

Course Objective: The student demonstrates the employability characteristics that lead to success in the maritime industry. The student is expected to: (A) identify the credentials and certification requirements for entry into careers in the maritime industry such as basic seaman, able-bodied seaman and on to captain and pilot; (B) determine how to make effective decisions, use career information, and manage personal career plans; (C) demonstrate the ability to use technological resources in diverse and changing personal, community, and workplace environments; (D) create alternative solutions by using critical- and creative-thinking skills; (E) research and compile health and safety policies, procedures, regulations, and practices of the maritime industry; (F) research and discuss professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms; and (G) demonstrate effective communication skills and leadership styles. The student demonstrates the employability characteristics that lead to success in the maritime industry. The student is expected to: (A) identify the credentials and certification requirements for entry into careers in the maritime industry such as basic seaman, able-bodied seaman and on to captain and pilot; (B) determine how to make effective decisions, use career information, and manage personal career plans; (C) demonstrate the ability to use technological resources in diverse and changing personal, community, and workplace environments; (D) create alternative solutions by using critical- and creative-thinking skills; (E) research and compile health and safety policies, procedures, regulations, and practices of the maritime industry; (F) research and discuss professional, ethical, and legal behavior consistent with applicable laws, regulations, and organizational norms; and (G) demonstrate effective communication skills and leadership styles. (2) The student understands the terminology and laws governing vessel navigation on navigable waters. The student is expected to: (A) summarize vessel regulations for international and inland waterways, such as oceans, western rivers, Great Lakes, and where each applies; (B) distinguish the lines of demarcation; (C) define government and industry accepted terminology and classification pertaining to vessel type, such as: power-driven vessel, sailing vessel, vessel engaged in fishing, seaplane, vessel not under command, vessel restricted in her ability to maneuver, vessel constrained by her draft, wing-in-ground underway, length, breadth, restricted visibility; (D) compare the responsibilities of owner, master, and crew in regards to safe navigation and



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compliance with rules of the International Regulations for Preventing Collisions at Sea (COLREGS) and Inland Navigation Rules. (3) The student understands steering and sailing rules to prevent collision between vessels on the water. The student is expected to: (A) demonstrate knowledge of proper look out, speed, and traffic density in different circumstances and conditions of visibility; (B) assess appropriate responses to risk of collision in various conditions and locations using proper equipment such as radar plotting and systematic observation to avoid collision; (C) explain the rules for governing vessel actions and conduct during navigation of a traffic separation scheme; (D) differentiate types of vessels and seaplanes based on the vessel's lights, shapes, and sounds in all weather conditions and times of day or night; (E) analyze exceptions and annexes of associated navigation regulations; (F) interpret aids to navigation including buoys, visual markers, lighthouses, fog signals, and day beacons and determine the action expected of each vessel; (G) demonstrate skills necessary to plot position by defining a safe course considering tides and currents, aids of navigation, human structures and hazards. (H) operate bridge equipment used for vessel navigation such as Electronic Chart Display and Information System (ECDIS) with integrated global positioning system (GPS), radar, Gyro Compass, bridge engineering controls, automated information systems (AIS) and very high frequency (VHF) radio; and (I) consider the effects of weather systems that may affect safe and efficient vessel navigation, including hurricanes, frontal systems and boundaries, fog, squall lines, microbursts, and cloud structures. (4) The student understands best practices in the event of an on-water collision. The student is expected to: (A) detail how to assess crewmembers' injuries and administer first aid as necessary; (B) formulate procedures for notifying the Coast Guard of the situation; (C) assess damage to the vessel and make repairs as necessary. (5) The student assesses the importance of safety in the maritime industry. The student is expected to: (A) identify and adhere to the Occupational Safety and Health Administration (OSHA) guidelines; (B) demonstrate proper use of breathing apparatus, including self-contained breathing apparatus (SCBA) and emergency egress breathing device (EEBD); (C) demonstrate and practice firefighting techniques using firefighting equipment, including portable systems and extinguishers; (D) compare the four types of shipboard fires A, B, C, D—solids, liquids, electrical and oxidizers—and identify their extinguishing agents. (6) The student explains safety precautions to take while handling inert gas systems on vessels. The student is expected to: (A) classify inert gases; and (B) define inert gas systems. (C) describe the use of and precautions need for inert gas safety systems; (D) diagram and label inert gas safety systems; (E) calculate adequate oxygen levels; (F) determine levels of combustible gases. (G) identify toxic components of flue gases; and (H) investigate chemical reactivity hazards and precautions related to vessel operations. (7) The student analyzes maritime environmental factors and regulations. The student is expected to: (A) evaluate pollution controls such as ship design, emissions, overboard discharge of solids and liquids, and waste disposal on various vessel types. (B) Investigate bunkering of various vessel types, including bulk liquid cargo carriers, recreational and fishing vessels, tugs, off-shore supply vessels, and large commercial passenger vessels; (C) classify the Marine Pollution (MARPOL) garbage regulations; and (D) outline regulations for protecting endangered and threatened marine mammals and sea life.

Contact Information:

Preferred Mode of Communication: TEAMS Chat or Email

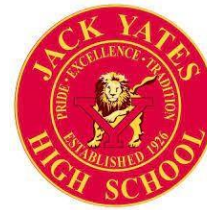
Email: paul.judice@houstonisd.org

Web Address: /

Room: 135

Materials:

- HISD issued laptop and charger



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Grade Weight and Grading Scale:

Formative- 60% (Daily Grades, Quizzes, Homework)

Summative- 40% (Projects, Tests, Essays)

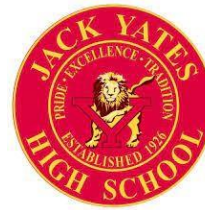
(A=100-90)

(B=89-80)

(C=79-75)

(D=74-70)

(F=69-0)



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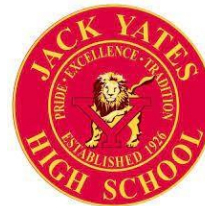
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Honor Code: Jack Yates High School embodies a spirit of mutual trust and intellectual honesty that is central to the very nature of learning and represents the highest possible expression of shared values among the members of the school community. The core values underlying and reflected in the Honor Code are:

- Academic honesty is demonstrated by students when the ideas and the writing of others are properly cited; students submit their own work for tests and assignments without unauthorized assistance; students do not provide unauthorized assistance to others; and students report their research or accomplishments accurately
- Respect for others and the learning process to demonstrate academic honesty
- Trust in others to act with academic honesty as a positive community-building force in the school
- Responsibility is recognized by all to demonstrate their best effort to prepare and complete academic tasks
- Fairness and equity are demonstrated so that every student can experience an academic environment that is free from the injustices caused by any form of intellectual dishonesty
- Integrity of all members of the school community as demonstrated by a commitment to academic honesty and support of our quest for authentic learning.

Policy on Electronic Devices: Once students enter classroom, all electronic devices should be silenced and put away such that they are not visible. These include cell phones, headphones, ear buds, etc. Students may only use electronic devices if authorized by teacher. Teachers may use electronic devices for instruction purposes at their discretion.

Make Up and Late Work: Homework and daily class work should be submitted in a timely manner as much as possible. Evaluation on late work will be done on a case-by-case basis at the discretion of the teacher. Make-up work will not be made-up during class time; this time will be reserved for planned instruction. It is the responsibility of the student to get make-up work and to return it to the instructor in a timely manner.



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Student Success: Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as a guide.

As your teacher, it is my responsibility to:

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar that will include a description of any special projects or assignments
- Arrange to meet with individual students before and after class as required

As a student, it is your responsibility to:

- Attend class on time
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Attain a raw score of at least 50% on the departmental final exam