

# Texas Maritime Academy

OF THE  
AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS



# Texas Maritime Academy

## OF THE A. AND M. COLLEGE OF TEXAS

offers an opportunity for the high school graduate:

- *To qualify as an officer in the United States Merchant Marine.*
- *To become an Ensign in the United States Naval Reserve (Inactive).*
- *To earn a Bachelor of Science degree in Marine Engineering or in Marine Transportation.*

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A four year course of study is offered with three summer training cruises in a maritime academy training ship to Europe, the Caribbean, and South America. The first cruise will commence at the end of the freshman year, leaving from New York with the cadets of the New York State University Maritime College aboard the Training Ship EMPIRE STATE IV (a former Navy hospital ship).

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The freshman year starts in September 1962 on the main campus of the A. and M. College of Texas at College Station, Texas, and the remaining years are to be at the Texas Maritime Academy campus at Galveston, Texas.

# TEXAS MARITIME ACADEMY

Galveston, Texas



## *Establishment*

The Texas Maritime Academy was established February 24, 1962 by the Board of Directors of the Texas Agricultural and Mechanical College System, by authority of Acts of the Fifty-sixth Legislature, Regular Session 1959, and by the Federal Maritime Academy Act of 1958.

## *Mission*

The mission of the Texas Maritime Academy is to provide a course of education and training that will qualify its graduates as officers in the United States Merchant Marine.

## *The Maritime Industry*

The maritime industry includes everyone who is involved with the transporting of people and goods by ship. There are hundreds of specific jobs in the major areas of: maritime transportation; auxiliary facilities; design, construction and repair; trade and finance; and the port industries. The industry, as the center of our foreign trade and travel, is a vital and dynamic part of our economy, as well as an essential element of our defense program.

## ***Texas - - A Maritime State***

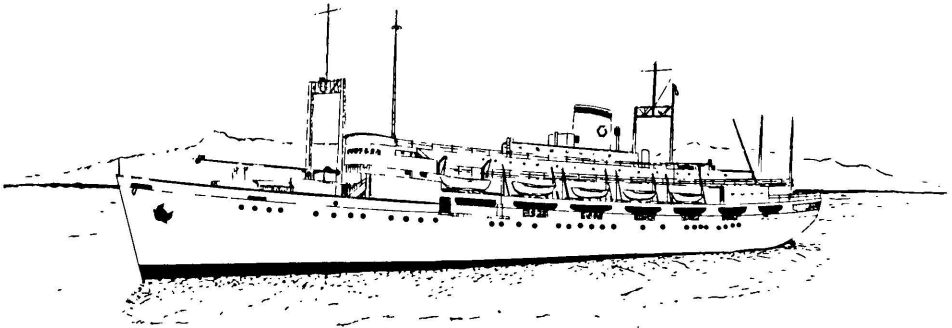
The huge maritime industry in Texas generates a leading role in the foreign commerce of the United States. Texas ranks first among all the states as determined by the tons of water-borne cargo, foreign and domestic, loaded and unloaded in its modern and thriving seaports. Texas runs a close second to New York State in the number of seagoing ships entering and leaving port.

The Texas maritime industry needs highly-trained young men to help expand the ocean transportation and foreign commerce of the strategically located ports. The ideal means of obtaining the optimum knowledge and experience needed in the industry is to acquire a sound academic knowledge of the maritime industry and supplement this with seafaring experience in ships plying the trade routes of the world. A substantial portion of the leading personalities of the maritime industry are former masters and chief engineers of ships, particularly those who have had a college education.

### ***Careers As Merchant Marine Officers***

Seafaring is a profession with few geographical limits. In the conduct of world commerce, ships of the United States Merchant Marine sail in and out of every port of call in the free world, discharging and taking on cargo and passengers, refueling, provisioning, and making repairs. Stamina, ingenuity, and courage are the fundamental characteristics of the mariner as he plies the seven seas.

Career opportunities in this profession are not limited to well-defined channels. The modern mariner finds broad horizons of adventure in the technological advances of his



age. Officers of the Merchant Marine are preparing for the near day when nuclear-powered merchant ships will launch a new era in commercial propulsion. They are involved in the development and staffing of huge super-tankers and record-breaking passenger liners; in revolutionizing ship navigation and stability control; in expediting cargo-handling techniques. Each step forward opens new frontiers for the Merchant Marine and new careers for men of professional training and experience.

A deck graduate, reporting aboard his first ship as third officer, stands a watch, is responsible for life-saving equipment, and assists in other duties. When he advances his license and is appointed a second officer, he becomes responsible for the navigation of the ship. And finally, as the culmination of the difficult training that has gone before, the proud day comes when the officer receives his "master" license and is qualified to command his own ship.

A marine engineer graduate is first assigned aboard ship as third assistant engineer. He stands an engine room watch, is responsible for auxiliary machinery, and works for advancement to second assistant engineer, the first assistant, and finally to chief engineer.

The Texas Maritime Academy expects to play a major role in the placement of its graduates. It is the only such school dedicated to serving the steamship lines whose ships ply out of ports of the Gulf of Mexico.

There will be a continual need for well-educated and highly-trained officers to man the new, modern, replacement ships in the Merchant Marine. A \$4.5 billion construction program to update ships of the Merchant Marine is now underway. Some 52 larger and faster cargo ships of this program are now building.

Few other professions offer such immediate financial rewards. New graduates of the Texas Maritime Academy may expect to earn approximately \$550-600 per month, plus meals, quarters, and other emoluments, with opportunities to increase their monthly earnings considerably by overtime. Maritime academy graduates who already have risen to positions of command or are serving as chief engineers—relatively young men—are receiving annual salaries of above \$13,000.

## ***Shore Employment***

Although the primary aim of the Academy is to prepare young men for leadership *at sea*, eventually as masters and chief engineers, the marine careers open to them are not limited to the actual operation of ships. Many well educated and trained officers, after establishing successful records at sea, have been selected to become port captains and marine superintendents, or operating managers ashore. Many have advanced rapidly to positions in the executive and administrative branches of the shipping industry and to high offices in governmental agencies relating to maritime operations. Some are employed as shipping representatives in home and foreign ports. Others are attracted to a lucrative field as marine sales engineers.

## ***The Academy***

The Texas Maritime Academy offers young men the opportunity to continue formal education and, at the same time, to prepare to become licensed ships' officers in the United States Merchant Marine.

Upon completion of the freshman year, the cadet selects one of two areas of specialization: Marine Engineering or Marine Transportation. Thereafter he is known as an Engineer Cadet or as a Deck Cadet.

Upon the successful completion of the course of study, three ocean training cruises, and upon passing the United States Coast Guard license examination for a Third Mate or Third Assistant Engineer, a graduate receives a Bachelor of Science Degree in Marine Transportation or in Marine Engineering.

Upon graduation the cadet who has the required qualifications may apply for a commission as Ensign, United States Naval Reserve.

## ***Academic Program***

The school year consists of 11 months of instruction and training. The year is divided into two academic semesters and one ocean training cruise. Both the Marine Transportation and Marine Engineering Curricula require the study of general education courses in addition to the professional and technical subjects.

List of courses common to both Marine Transportation  
and Marine Engineering:

Courses	Credits
Chemistry—General	8
Economics—Principles	3
Engineering Graphics—Engineering Drawing	2
English—Composition and Rhetoric	6
—Writing for Professional Men	3
—Public Speaking	1
Geography—International Political Geography	3
Government—American National Government	3
History—History of the United States	6
—International Developments since 1918	3
Marine Engineering—Orientation	1
Marine Transportation—Maritime Orientation	1
Mechanical Engineering—Machine Production Techniques	2
Mathematics—Algebra, Plane Trigonometry, <del>Analytic Geometry, and Calculus</del>	6
Nautical Science—Ship Organization and Operations	2
—Naval Architecture	6
Naval Science—Orientation	2
—Sea Power	3
—Naval Weapons	3
—Naval Operations	3
—Naval Leadership	3
Physics—College	8
Psychology—Psychology for Technical Students	3
Physical Education—(2 hours per week)	Required
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	81

Courses in MARINE TRANSPORTATION are:	Credits
Economics—International Trade and Finance	3
Marine Transportation—Marine Cargo Operations	6
—Marine Insurance	2
—Admiralty Law	2
—Maritime Law	2
—Ocean Traffic Management	3
—Ocean Transportation	3
Nautical Science—Marine Inspection Rules	3
—Navigation	12
—Rules of the Nautical Road	3
—Seamanship	12
Naval Science—Naval Machinery	3
Mathematics—Spherical Trigonometry	3
Meteorology—Weather Reports—Forecasting	3
Modern Language—Spanish	12
Oceanography—Tides, Waves, Currents, and Ice	3
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	75

Courses in MARINE ENGINEERING are:	Credits
Electrical Engineering—Electrical Circuits	4
—Electrical Machinery	3
—Electronics	4



Marine Engineering—Diesel Engineering	3
—Engineering Repairs	2
—Engineering Laboratory	5
—Marine Engineering Mechanics	3
—Marine Fluid and Heat Transfer	3
—Marine Refrigeration and Air Conditioning	3
—Marine Regulatory Law	4
—Marine Steam and Gas Turbines	3
—Marine Thermodynamics	6
—Naval Architecture—Propulsion	3
—Nuclear Propulsion	6
—Steam Generators	3
—Strength of Materials	3
Mathematics—Analytic Geometry and Calculus	11
—Differential Equations	3
Naval Science—Navigation	3
	—
	75

The Marine Transportation course leads to the degree of Bachelor of Science in Marine Transportation and to the U. S. Coast Guard issued license as Third Mate, Steam and Motor Vessels, Ocean, Unlimited. This program is designed to familiarize cadets with ship operation and management and also emphasizes the economic and business aspects of the maritime industry.

The Marine Engineering program leads to the degree of Bachelor of Science in Marine Engineering and to the U. S. Coast Guard issued license as Third Assistant Engineer, Steam and Motor Vessels, Ocean, Unlimited. Marine Engineering, which is closely related to mechanical engineering, emphasizes the design, operation, and maintenance of maritime power plants and associated equipment.

## Afloat Training



Each Sea Training Period is a required, staff-supervised, educational term intended to insure necessary operational training periods and experience for all cadets.

During the three required operational training periods completed, the cadet progresses from the apprentice stage through the artificer level to the junior officer category. In addition to practical experience in ship operations, safety at sea is continuously emphasized and boat drills are conducted in preparation for the "lifeboatman" examination.

The operational training period includes visits to five or six foreign ports. Different ports are selected each year to provide cadets with a wide range of experience. Ample liberty time is provided in each port, affording cadets the opportunity to visit places of cultural and historic, as well as maritime, importance.

The Federal Maritime Administration will provide the Academy with a suitable training ship for the purpose of conducting the sea training cruise. Since the Texas Maritime Academy is new and will not have senior cadets who are able to operate the ship, it will be necessary to cruise with the cadets in the training ship of another state maritime academy for the first two years.

### ***First Cruise***

The first training cruise will commence in June 1963. Texas Maritime Academy cadets will depart in company for the Port of New York where they will report to the

Commanding Officer of the EMPIRE STATE IV, the training ship of the New York State University Maritime College. The Texas cadets will sail with the 450 New York cadets for ports in Europe.

### ***Naval Reserve Commissions***

The Navy's interest in the maritime academies stems from the national defense requirement for an adequate Merchant Marine manned by well-trained officers possessing an understanding of naval procedures, and capable of operating with the Navy in time of war. The Navy does not desire to be obligated to consider the maritime academies as basic sources of Naval Reserve officers, nor to be obligated to call graduates of these academies to active duty. The Navy conceives of these schools as primarily required for the manning of our Merchant Marine.

Pertinent points of this program are as follows:

- (1) Students are to retain civilian status.
- (2) The Director of Selective Service has provided for deferment of these students.
- (3) The Navy will offer Naval Science courses.
- (4) After graduation, those who obtain employment at sea in the Merchant Marine may be tendered an inactive Naval Reserve commission, if eligible in all respects.
- (5) After graduation, those who, through no fault of their own, are unable to obtain employment at sea in the Merchant Marine, and who volunteer for active duty, may be commissioned, if eligible, and placed on active duty if there is an actual need for their services.
- (6) Inactive Naval Reserve Officers who maintain satisfactory standing are eligible to be classified 4-D by Selective Service.

### ***Limited Enrollment***

The ultimate enrollment of the Academy will approximate 200 cadets, most of whom will be from Texas. A few applicants from other states may be admitted. The

beginning class is limited to approximately 50 new students. Selection within the quota is based on scholastic record and aptitude. It is anticipated that selection will be highly competitive among applicants.

### ***Admission Requirements***

An applicant must have graduated from a properly accredited secondary school with a minimum of 15 units (credits) which are acceptable to the College for entrance purposes. The applicant who does not meet the above requirement or who falls within the lowest one-fourth of his high school class may be required to make a satisfactory showing on tests prescribed by the College. Generally this means tests given by the College although results of College Entrance Examination Board tests will be acceptable for this purpose. The 15 acceptable entrance credits shall include 4 units in English, 2 units in the social sciences, 2 units in algebra, 1 unit in plane geometry, 1 in a natural science, and 5 acceptable elective units. Three units in English and two units in a foreign language may be substituted for the four units required in English.

### ***General Requirements***

Young men applying for admission to the Texas Maritime Academy must:

- (1) Be of good repute.
- (2) Be a citizen of the United States.
- (3) Be unmarried, must never have been married, and must remain unmarried until graduation.
- (4) Be not less than 17 and not yet 22 years of age in June of the year of admission.

### ***Physical Requirements***

The applicant is required to be in good physical condition as determined by physical examination. Applicants who wear glasses must be able to pass a test, without glasses, of at least 20/40 in one eye and 20/70 in the other. Both eyes must be correctible to 20/20 with glasses. Color blindness is disqualifying.

**Expenses**

Estimated expenses subject to revision:

	Fresh- man Year	Sopho- more Year	Junior Year	Senior Year	Total Expenses
	\$1,365	\$1,852	\$1,859	\$1,644	\$6,720
Less Federal Aid:					
	— 450	— 600	— 600	— 600	— 2,250
	<u>\$ 915</u>	<u>\$1,252</u>	<u>\$1,259</u>	<u>\$1,044</u>	<u>\$4,470</u>

Nonresident students must add \$450 for each year for tuition.

These estimated expenses are for eleven months per year and include tuition, fees for student activities and services, property deposit, board, room, laundry, text books and supplies, slide rule and other instruments, laboratory fees, uniforms, cruise expenses, and transportation to and from New York. All known expenses, except incidentals, have been included in the estimates.

**Estimated Funds Needed for Freshman Year and the First Cruise**

(Includes the <sup>1365</sup>~~\$1,698~~ for Freshman year and part of Sophomore year.)

First Semester	Second Semester	First Cruise
\$518 (*)	\$847 (*)	\$910 (*)

The funds listed above will be needed for each period, but installment plans are in a similar order as noted in the current (#84) of A. and M. Undergraduate Catalogue. Details will be available in a Texas Maritime Academy Catalog to be published later.

(\*) It is to be noted that these funds are the gross amount needed and do not take into account the possibility of receiving federal aid at the rate of \$600 per year. If such funds are received, the cost to the individual will be reduced accordingly. Although funds for such purpose have been requested and other academies receive these funds, action by Congress is necessary. Hence, there is no assurance that such funds will be available and, thus, each student must be prepared to pay the full amount the first year.

## ***Loans***

Loan funds are available from various sources and the National Defense Student Loan Program. See page 92 of the A. and M. Undergraduate Catalogue #84. Students desiring loans should apply at the Office of Student Loans.

### **FOR MORE INFORMATION**



Additional information about the Texas Maritime Academy or the Agricultural and Mechanical College of Texas may be obtained from:

Director of Admissions and Registrar  
The A. and M. College of Texas  
College Station, Texas



