



2026-2027 United States Merchant Marine Academy



The Mission of the United States Merchant Marine Academy

To educate and graduate leaders of exemplary character who are inspired to serve the national security, marine transportation and economic needs of the United States as licensed Merchant Marine Officers and commissioned officers in the Armed Forces.

The United States Merchant Marine Academy is operated by the Maritime Administration of the U.S. Department of Transportation.

Course content and regulations at the Academy are under constant review and revision. Therefore, the Academy reserves the right, whenever it deems advisable, to withdraw, cancel, reschedule or modify any course, program of study or requirement in connection with any of the foregoing within the limits established by law and Maritime Administration, U.S. Department of Transportation Orders.

The United States Merchant Marine Academy welcomes students of any race, color, creed, sex and national or ethnic origin. Because of the specialized nature of the Academy's program, and the obligation of students after graduation, requirements regarding age, physical condition and U.S. citizenship do apply. These requirements are listed in this catalog.

The Academy is an equal opportunity employer.

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A Message from the Superintendent

The mission of the U.S. Merchant Marine Academy is, "to educate and graduate leaders of exemplary character who are inspired to serve the national security, marine transportation, and economic needs of the United States as licensed Merchant Marine Officers and commissioned officers in the Armed Forces."

In peace and war, the U.S. Merchant Marine Academy has been training leaders for the maritime industry and the Armed Forces since 1943. We have recently celebrated the 80th anniversary of the dedication of Kings Point as a fifth federal service academy.

Our graduates are Master Mariners, Chief Engineers, captains of industry, astronauts, officers in the Army, Navy, Air Force, Marines and Coast Guard, and the backbone of the maritime industry.

Young men and women who embark upon the four-year program here at Kings Point face significant challenges from the moment they enter the front gate to the moment they toss their hat in the air at graduation. The Four Pillars of our program - Academics, Regiment, Physical Fitness and Sea Year - combine to make a unique and rewarding global undergraduate experience for our students.

Upon graduation, as licensed mariners, you will sail the vessels that move more than 90% of trade to and from our country, contributing immeasurably to the health and welfare of our economy. You might also choose to serve as an active duty officer in the Armed Forces, training and leading the Nation's finest men and women to meet challenges around the world.

This Course Catalog describes the USMMA experience in detail. It should answer the question, "Is Kings Point right for you?" If you are dedicated and committed to leadership and selfless service, if you desire a first-class education that challenges you every single day, or if you find the ideas of independence, self-discipline and a campus that spans the globe attractive, it just might be.

Acta non Verba!

Anthony "J" Ceralo
Rear Admiral, U.S. Maritime Service



A Message from the Academic Dean and Provost

The U.S. Merchant Marine Academy at Kings Point conducts a unique, intensive, STEM-centered educational curriculum that leads to bachelor's degrees in Marine Transportation, Maritime Logistics and Security, Marine Engineering, Marine Engineering and Shipyard Management or Marine Engineering Systems. These five degree programs are enhanced by general education and leadership development courses designed to prepare graduates to serve effectively as Merchant Marine officers and commissioned officers in the U.S. Armed Forces immediately upon graduation. A key component of the learning experience at USMMA is Sea Year, during which every Midshipman serves aboard vessels at sea, all around the globe in order to gain a firsthand perspective on the maritime industry, national security and global affairs.

The Kings Point curriculum is demanding, comprehensive and stimulating. It has been carefully designed to ensure that our graduates are professionally competent, trained for leadership and responsibility, and well-rounded intellectually. Therefore, Kings Pointers are expected to perform well academically and also demonstrate skills in the regiment, on the playing field, and at sea.

With the strong educational and leader development experiences we provide, our graduates are well prepared to lead with integrity, competence and high ethical standards; to think critically and creatively to solve complex problems; to communicate proficiently both orally and in writing; to function effectively in the socially, economically, and culturally diverse global maritime environment and pursue life-long intellectual and professional development. We all hope you will join our team and serve our nation through an exciting and rewarding maritime career.

Dr. Johnathan Gajados
Academic Dean and Provost

Policy

Policy Regarding Discrimination, Harassment, Sexual Assault, and Retaliation

The U.S. Merchant Marine Academy is committed to the development and growth of all Midshipmen, faculty and staff in an environment that is free from discrimination and harassment based on race, color, national origin, ethnicity, gender, gender identity, disability, religion, age, sexual orientation, veteran or military status, or any other status protected by law, and is also free from sexual assault, relationship violence, stalking, and retaliation. Such behavior creates a demeaning, intimidating, and hostile educational environment that undermines the basic principles of the Academy. It is not accepted or tolerated at our institution. It is the responsibility of all Midshipmen, faculty and staff to refrain from such behavior, to discourage it wherever found and to promptly report any such behavior as required by Academy policy.

The Academy is dedicated to training men and women as future officers in the merchant marine and Armed Forces who must uphold and perpetuate the traditions of an honorable profession. Illegal or inappropriate conduct is corrosive to the cohesiveness, morale and esprit de corps of a military organization or a ship's company.

All incidents of discrimination, harassment, sexual assault, relationship violence, stalking, and retaliation will be investigated by the Academy or the appropriate investigative agency having jurisdiction of the incident. All involved will be treated with dignity, fairness and respect. If a violation is found, prompt and effective corrective action will be taken.

The Academy provides training, education and awareness to minimize such conduct, as well as support for victims.

Serving the Nation

A glimpse at a map of the United States shows us that we are a maritime nation. To the east is the Atlantic Ocean; to the west, the Pacific; off our southern border, the Gulf of Mexico; in the north, the Great Lakes; and crisscrossing our states, great rivers like the Mississippi and other inland waterways.

Every hour of every day, ships of all types ply the waters in and around our nation. They leave our ports laden with U.S. goods bound for foreign markets, or arrive in our harbors with merchandise and materials for American consumers.

There are tankers traveling along the west coast with raw petroleum for our refineries; Great Lakes vessels loaded with iron ore, coal or other minerals for America's industry; huge container ships in Eastern ports, their box-like containers filled with manufactured goods; general cargo ships in the Gulf unloading pallets of coffee and crates of fruit; tugboats pushing and pulling barges carrying the Midwest's grain.

These kinds of vessels, owned by U.S. companies, registered and operated under the American flag, comprise the U.S. Merchant Marine. This fleet of highly productive ships is a major part of our system of commerce, helping guarantee our access to foreign markets for sale of our manufactured goods.

Moreover, in time of war or national emergency, the U.S. Merchant Marine becomes vital to national security as a "fourth arm of defense." Our merchant ships bear the brunt of delivering military supplies overseas to our forces and allies. The stark lessons of national conflict prove that a strong merchant marine is an essential part of American sea power.

The nation's economic and security needs met by the U.S. Merchant Marine are compelling. Today, the United States imports approximately 85 percent of some 77 strategic commodities critical to America's industry and defense. Although we, as a nation, account for only six percent of the world population, we purchase nearly a third of the world's output of raw materials. Ninety-nine percent of these materials are transported by merchant vessels.

A ship at sea does not operate in a vacuum. It depends on a framework of shoreside activities for its operations. This industry includes companies which own and manage the vessels; ports and terminals where cargo is handled; yards for ship repair; services like marine insurance underwriters, ship chartering firms, admiralty lawyers, engineering and research companies; and increasingly today, intermodal systems of trucks and railroads to distribute goods around the country.

But the most important element in a productive merchant fleet and a strong transportation industry is people—men and women who

are intelligent, dedicated, well- educated and competent.

The purpose of the U.S. Merchant Marine Academy is to ensure that such people are available to the nation as shipboard officers and as leaders in the transportation field who will meet the challenges of the present and the future.

The Program

The Academy is located in Kings Point, New York. Its 82-acre waterside campus lies on Long Island's north shore, about 20 miles east of New York City.

The Academy is a national institution, operated by the Federal Government's Maritime Administration, an agency of the U.S. Department of Transportation. The Academy's four-year program centers on a regimental system that instills its students - called Midshipmen (a term used for both men and women) - with the traits of leadership, discipline and dedication required for a career that typically may include service at sea, maritime employment ashore, and serving as a commissioned officer in the U.S. Armed Forces.

The Academy's Regiment of Midshipmen numbers approximately 950 young men and women who represent every state of the Union as well as U.S. Trust Territories and Possessions. The size of the student body contributes to a true sense of camaraderie among the members of the Regiment and permits the Academy to maintain an excellent student-teacher ratio.

A sound college education is the foundation for every profession in our society and the mariner's profession is no exception. Elements of the academic program provide all Midshipmen with the specialized training and education for success as U.S. Coast Guard-licensed merchant marine officers, in compliance with the requirements set forth in the International Convention on the Standards of Training, Certification and Watchkeeping for Seafarers (STCW) 1978, as well as the STCW Code in subsequent related amendments. The curriculum at the Academy provides each Midshipman with the broad college education required for a Bachelor of Science degree. The military knowledge necessary for commissioning in a reserve component of the Armed Forces rounds out the academic program. Few colleges can offer such a full range of credentials at graduation.

The Academy challenges its Midshipmen intellectually and physically. The academic program is demanding, the regimental system rigorous. Freshman (fourth class or plebe) year is particularly strenuous as students make the transition from high school graduate to Academy Midshipman. In their first few months, they learn many new terms, the quality of endurance, how to perform under pressure, and most importantly, how to successfully manage time.

During sophomore (third class) year, and again during junior (second class) year, Midshipmen are sent to sea for practical shipboard training. Aboard ship, sailing the trade routes of the world, they learn the value of self-reliance and initiative as they gain first hand experience in the mariner's environment. In their senior (first class) year, they fine tune the skills learned in the classroom and at sea as they prepare to enter the professional world.

Enrollment at the Academy requires many personal sacrifices, but the goal is worthwhile. Students must be prepared for numerous demands on their time, a degree of stress, and some limitations on their personal freedom. In return, the Academy develops leaders and prepares its graduates for careers that are bounded only by their talents and desire.

Accreditation

The Academy is accredited by the Middle States Commission on Higher Education (MSCHE), 3624 Market Street, Philadelphia, PA 19104, (267) 284-5000, <http://www.msche.org>.

History

Federal involvement in maritime training is more than a century old. Since the administration of President Ulysses S. Grant, the U.S. Government has initiated various programs to train its citizens for service in the merchant marine. The Academy, dedicated in 1943, represents the realization of these efforts. Between 1874 and 1936, diverse federal legislation supported maritime training through scholarships, internships at sea and other methods. A disastrous fire in 1934 aboard the passenger ship MORRO CASTLE, in which 134 lives were lost, convinced the U.S. Congress that direct federal involvement in efficient and standardized

training was needed.

Congress passed the landmark Merchant Marine Act in 1936, and two years later, the U.S. Merchant Marine Cadet Corps was established. The first training was given at temporary facilities until the Academy's permanent site in Kings Point, N.Y. was acquired in early 1942. Construction of the Academy began immediately, and 15 months later the task was essentially completed. The Academy was dedicated on September 30, 1943. President Franklin D. Roosevelt, noted at that time that "the Academy serves the Merchant Marine as West Point serves the Army and Annapolis the Navy."

World War II required the Academy to forego normal operation and devote all of its resources toward meeting the emergency need for merchant marine officers. Enrollment rose to 2,700, and the planned course of instruction was reduced in length from four years to 18 months. Notwithstanding the war, shipboard training continued to be an integral part of the Academy curriculum, and Midshipmen served at sea in combat zones the world over. One hundred and forty-two Midshipmen gave their lives in service to their country, and many others survived torpedo and aerial attacks. By war's end, the Academy had graduated 6,634 officers.

World War II proved that the Academy could successfully meet the needs of a nation in conflict. As the war drew to a close, plans were made to convert the Academy's wartime curriculum to a four-year, college level program to meet the peacetime requirements of the merchant marine. In August 1945, such a course was instituted.

The Academy has since grown in stature and has become one of the world's foremost institutions in the field of maritime education. In 1949, Congress granted the Academy authorization for awarding the degree of Bachelor of Science to graduates; the Academy was fully accredited as a degree-granting institution that same year. It was made a permanent institution by an Act of Congress, signed by President Dwight D. Eisenhower, in 1956.

The Academy's national value was again recognized as it accelerated graduating classes during the Korean and Vietnam conflicts, and for its involvement in such programs as training officers of the first U.S. nuclear-powered merchant ship, the SAVANNAH. Admission requirements were amended in 1974 and the Academy became the first federal service school to enroll women students.

During the first Persian Gulf conflict in early 1991, and for many months prior to the war, both Academy graduates and Midshipmen played key roles in the massive sealift of military supplies to the Middle East. Midshipmen training at sea have since participated in the sealifts to Somalia, Kosovo, Afghanistan and Iraq.

While the Academy's curriculum has changed dramatically since 1943 to reflect the technological advances of America's merchant marine, the institution has maintained its unswerving commitment to quality education and excellence among its Midshipmen.

Student Information

Campus

The Academy campus and facilities comfortably accommodate the Regiment of Midshipmen. The design of the buildings is simple yet functional, and the campus has been laid out to take full advantage of the picturesque waterfront of Long Island's north shore. The Academy's buildings and walkways are named after individuals whose deeds have brought fame to America's merchant marine.

On the slope looking toward Long Island Sound stands a monument to the Academy's World War II casualties. Around this monument are grouped an outdoor swimming pool; a boat basin and the Yocum Waterfront Center; Gibbs Hall, with modern science and engineering laboratories; and Samuels Hall, which will be renovated in 2017-2018 as a state of the art simulator center. A beautiful interfaith chapel, which serves the religious needs of the Regiment, stands on a grassy knoll to the south of the War Memorial.

Wiley Hall, facing Long Island Sound, is the chief administration center of the Academy. Formerly the home of automobile magnate Walter P. Chrysler, this historic building contains the offices of the Superintendent, Deputy Superintendent, Academic Dean and

Provost, Director of Public Affairs and other senior staff. East of Wiley Hall lies the center of the Academy campus, marked by a striking, 176-foot flagpole. Surrounding this landmark are Fulton Hall, the marine engineering and science building; Bowditch Hall, housing the Department of Marine Transportation and the 900-seat Ackerman Auditorium; and the Schuyler Otis Bland Memorial Library.

Delano Hall, the Midshipman dining room, and six dormitory buildings - Barry, Jones, Rogers, Cleveland, Murphy, and Palmer Halls- complete the circle of buildings enclosing the main campus. The dormitories and dining room are connected by an underground promenade, which contains the Midshipman Recreation Center and canteen, Navy Exchange, post office, laundry facilities, club spaces, sea year storage, fitness room, bank, and barber shop.

On the perimeter of the Academy are athletic fields for football, baseball, lacrosse and soccer, as well as tennis and handball courts and a quarter-mile surfaced track; Furuseth Hall, containing the Department of Naval Science, the Department of Professional Development and Career services, the Public Safety and Security Office, and the Administrative Services Department; Vickery Gate, home of the Admissions Office; O'Hara Hall, which has a spacious gymnasium, an indoor, Olympic size swimming pool, and athletic facilities; Patten health clinic; and Land Hall, the Midshipmen Activities Center.

Although the majority of Academy buildings were constructed during World War II, ongoing modernization programs have rendered the classroom, laboratory and dormitory facilities virtually brand new.

On the northern border of the Academy lies the McNulty Campus, named after the "father" of the Academy, Rear Admiral Richard R. McNulty, who was instrumental in calling public attention to the need for a federal maritime officer training school. Located in this area is the American Merchant Marine Museum, a popular stop for campus visitors.

Midshipman Activities Center

The USMMA Experience is not be just about academics. Midshipmen explore their passions and gain experiences through their involvement in extracurricular clubs, activities and events. The Joseph B. Williams Midshipmen Activities Center serves as the focal point of many of these activities. The building contains meeting rooms, and host over 100 activities throughout the academic year. Additionally, it includes the Office of Student/Midshipmen Activities, the student run Pier 142 Café & Midshipmen Pub. Midshipmen find their place at Kings Point by getting involved with one of the over 45 clubs and organizations or by attending one of the many sponsored events at the Academy each year. These engagement opportunities offer midshipmen the chance to try something new or pursue a lifelong passion they may not have had the opportunity to do so before. Therefore, it fosters a framework for midshipmen to grow both personally and professionally.

The USMMA Experience is not be just about academics. Midshipmen find their place at Kings Point by getting involved with one of the over 50 clubs/organizations or by attending one of the host over 100 activities throughout the academic year. The Joseph B. Williams Midshipmen Activities Center serves as the focal point of many of these activities. The building contains the Office of Midshipmen Activities, the Pier 142 Café & the Midshipmen Pub as meeting/lounge rooms.

These engagement opportunities offer midshipmen the chance to try something new or pursue a lifelong passion they may not have had the opportunity to do so before.

Food Services

The commissary in Delano Hall provides Midshipmen with daily meals. Monday through Friday, breakfast and dinner are served buffet style, while lunch is served family style. On weekends, all meals are served buffet style. Breakfast, lunch and dinner are offered on Saturday. On Sunday, brunch and dinner are offered.

The Seafarer Restaurant, open to the public as well as to Midshipmen, is a cafeteria- style facility. It offers a full breakfast and lunch menu, Monday through Friday. The NEX offers a selection of dry groceries and food items that can be heated in the microwave.

Healthcare Service and Health Insurance

The Office of Health Services (OHS) has a unique mandate to provide Midshipmen with the medical, dental, and mental health services that are prerequisites for assignment to sea duty; application for a Strategic Sealift Officer, U.S. Navy Reserve (SSO, USNR) commission; and application for a U.S. Coast Guard (USCG) license.

The OHS, located in Patten Hall Building, is comprised of three health care services: a Medical Clinic, a Dental Clinic, and a

Midshipman Counseling and Personal Development (MCPD) office. All healthcare services are located in one building, which facilitates staff intercommunication and expedites many health-related processes for Midshipmen. Healthcare providers available to Midshipmen include: a New York State (NYS) fully licensed and credentialed Physician who acts as Chief Medical Officer (CMO); NYS Licensed Physician's Assistants; a NYS Registered Nurse; a NYS Licensed and Credentialed Dentist; a Certified Dental Assistant; a NYS Registered Dental Hygienist; a NYS Licensed Mental Health Counselor and a NYS Licensed Clinical Psychologist. OHS also manages and operates the Midshipmen Emergency Medical Services Squad which is comprised of Midshipmen who have trained for and passed the NYS Emergency Medical Technician (EMT) certification requirements. OHS follows the standards of the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) and is compliant with the Health Insurance Portability and Privacy Act (HIPAA) as well as the Family Education Rights & Privacy Act (FERPA).

The Department of Health Services (DHS) has a unique mandate to provide Midshipmen with the medical, dental, and mental health services that are required for assignment to sea duty; application for a Strategic Sealift Officer, U.S. Navy Reserve (SSO, USNR) commission; and application for a U.S. Coast Guard (USCG) license.

The DHS, located in Patten Hall, is comprised of three health care services: a Medical Clinic, a Dental Clinic, and a Midshipman Counseling and Personal Development (MCPD) office. All healthcare services are located in one building, which facilitates staff intercommunication and expedites many health-related processes for Midshipmen. Healthcare providers available to Midshipmen include: a New York State (NYS) fully licensed and credentialed Physician who acts as Chief Medical Officer (CMO); NYS Licensed Physician's Assistants; a NYS Registered Nurse; a NYS Licensed and Credentialed Dentist; a Certified Dental Assistant; a NYS Registered Dental Hygienist; a NYS Licensed Mental Health Counselor and a NYS Licensed Clinical Psychologist. DHS also manages and operates the Midshipmen Emergency Medical Services which is comprised of Midshipmen who have trained for and passed the NYS Emergency Medical Technician (EMT) certification requirements. DHS follows the standards of the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) and is compliant with the Health Insurance Portability and Privacy Act (HIPAA) as well as the Family Education Rights & Privacy Act (FERPA).

DHS services are generally available by appointment Monday - Friday, 0700 - 1530. Midshipmen may report with no prior appointment required during Sick Call, Monday - Friday, 0700 - 0900. DHS also provides access to healthcare services on weekends. Weekend hours may vary and a schedule of these services can be found by clicking [here](#). Midshipmen in duty status who require emergency care or urgent care when DHS is closed are transported to the nearest emergency room via the USMMA Ambulance System and by NYS Certified Midshipmen EMTs.

Health and Insurance Coverage

Midshipmen actively enrolled in academic classes are provided basic medical, dental and mental health care onsite at USMMA DHS. Healthcare provided onsite in support of the USMMA academic program are provided at no cost to Midshipmen.

DHS assists Midshipmen in maintaining all medical standards for USCG licensing and United States Navy commissioning requirements. DHS provides care to meet all the standards as set forth in The Code of Federal Regulations, 46 C.F.R. §310.56 which dictates the continuing requirement for Midshipmen to meet standards as set forth in Department of Defense Instruction 6130.03, Medical Standards for Appointment, Enlistment, or Induction in the Military Services.

If medical care needs rise above the scope of services that DHS provides onsite at USMMA, offsite higher level of care needs may become necessary and are provided by healthcare providers located in the surrounding community who specialize in many specialty care needs. The Midshipmen are responsible for costs related to care that go beyond the services available onsite at USMMA through DHS. However, if the offsite healthcare need is a direct result of in the line of duty activity, those injuries or healthcare needs are covered under the Federal Employee Compensation Act (FECA) or Federal Workers Compensation Insurance.

There are exceptions which would make all healthcare expenses solely the responsibility of the Midshipmen on a personal out of pocket basis. Generally, these exceptions are associated with:

- Healthcare services provided by non USMMA healthcare providers at DHS in Patten Hall,
- Injury, illness or diagnosis resulting from a pre-existing condition,
- A non-disclosed condition,
- Any medical condition resulting from activity which is incongruent with Academy regulations and policies.

Examples of conditions and/or treatments not covered include, but are not limited to:

- On-going treatment of pre-existing health conditions; elective medical examination and immunizations (e.g., pre-employment physicals and immunizations)

- Elective surgery;
- Cosmetic surgery (except reconstructive surgery incidental to or following surgery resulting from trauma, infection or other covered diseases or injury);
- Contact lens or eyeglasses examinations, for the prescription or fitting thereof;
- Hearing aids and examinations for the prescription or fitting thereof;
- Prescriptions and associated medical laboratory tests for treatment of dermatological conditions (e.g., acne);
- Consultation for or extraction of third molars (wisdom teeth);
- Dental care or treatment that requires surgical intervention or goes beyond the services that can be provided on site USMMA
- Dental implants;
- Orthodontic care;
- Substance use disorders; expensed incurred for treatment subsequent to or resulting from Substance use (including alcohol);
- Conditions incurred as a result of participation in an act in violation of Midshipmen Regulations, or Academy Policy;
- Prenatal care maternity benefits or any condition arising from or out of pregnancy

Uncovered medical expenses do occur and can be very costly if there is no medical insurance in place. For this reason, all incoming candidates and Midshipmen must be covered by a primary health care insurance policy that meets USMMA coverage requirements. Information explaining the USMMA insurance coverage requirements is provided during the annual open enrollment period. Notification for the beginning of the open enrollment period is communicated to all Midshipmen at the appropriate time. Midshipmen are required to obtain health insurance coverage through any of the following means:

1. Through the use of an existing private insurance plan or the purchase of same if none exists (e.g. a family plan, a "self and spouse plan" or self-only plan) that covers the candidate or Midshipman; provided that the policy meets the minimum coverage requirements established by USMMA

or

2. By obtaining a qualifying Student Health Insurance Plan (SHIP) through the Academy contracted Health Insurance Administrator which meets the Academy's minimum requirements. Additional information regarding the USMMA Health Insurance can be located by visiting our website at USMMA Department of Health Services

Career Services

The Department of Professional Development and Career Services is located on the second deck of Furuset Hall. The department provides a range of Career Counseling services ranging from information regarding the Midshipman's obligation, to resume assistance, to internship opportunities to graduate employment options. The department has resources to assist Midshipmen in communicating with organizations, learning about opportunities available with them, and in applying for positions. The department works with the alumni association to maintain a database of organizations participating in the internship program and employment of graduates. For a full description of the functions of the department, see Department of Professional Development and Career Services.

Midshipman Counseling and Personal Development

Midshipman Counseling and Personal Development (MCPD) provides an opportunity for Midshipmen to learn new skills and improve overall functioning both personally and academically, to achieve their full potential. Improving mental health and well-being can foster self-esteem, resilience and strength. Services are free, and confidential.

At MCPD we work with USMMA Midshipmen and Plebes to address issues that impact their life and performance at the Academy. MCPD can assist Midshipmen in areas including but not limited to adjustment to life at the Academy, relationship issues, conflict resolution, test anxiety, stress management, alcohol and/or substance use, improving communication with family, friends and staff, and many general support needs. MCPD advances the academic and performance missions of the Academy by facilitating personal development, self-awareness, problem-solving, and communication.

Services at MCPD are provided by licensed counselors and psychologists who carry out the Academy's mission through counseling, psychotherapy, consultation, and outreach programming. Care provided on-site by MCPD clinicians does not result in a

diagnosis if it's resolved without needing higher level of care through off-site referral. Records are kept confidential. At times MCPD clinicians collaborate with DHS medical staff for continuity of care.

MCPD works closely with the Department of Health Services; the Office of the Superintendent; the Offices of the Academic Dean and Academic Center for Excellence (ACE), the Office of the Commandant; the Office of the Chaplain; and other Academy departments in order to provide Midshipmen with a wholistic approach for navigating the various demands in their daily lives at USMMA

For more information about MCPD, please [click here](#).

Varsity and Intramural Sports

The Academy seeks to promote Midshipmen growth as a "whole person" and is concerned with physical development and with nurturing character, leadership and intellect. Physical fitness and athletics are therefore an important part of Midshipman life.

The varsity athletic program is comprehensive, but emphasis on intercollegiate competition is balanced with a Midshipman's academic obligations. The Academy strives to develop a healthy interest in athletics and to field competitive athletic programs with winning teams. This program offers physical development, recreation and a healthy focus for Midshipman pride and loyalty. The Academy is a National Collegiate Athletic Association Division III school and fields 19 varsity athletic teams. Male Midshipmen may compete in baseball, basketball, cross-country, football, lacrosse, soccer, swimming and diving, tennis, track and field, and wrestling.

Female Midshipmen can compete in basketball, cross-country, lacrosse, soccer, swimming and diving, track and field, and volleyball.

The Academy also offers competitive club sports for both males and females, including rugby, ice hockey and waterpolo.

Physical Fitness Program

The Academy places great emphasis on the physical condition of its Midshipmen and runs a complete physical conditioning program that develops and maintains flexibility, aerobic endurance and muscular strength. A good exercise regimen is proven to counter the mental stress associated with maritime, naval and military service. Midshipmen must meet and maintain the physical standards described below from entrance to the Academy through graduation.

Physical Fitness Assessment (PFA): This consists of a series of strength and endurance events to measure an individual's physical fitness in relation to their age and gender. The three events are the plank, push-ups, a 1.5 mile run. During the academic year, there are three or more scheduled PFAs administered to the Regiment.

Physical Excellence Program (PEP): A Midshipman or plebe who fails the PFA and/or body fat requirement will be required to participate in PEP, which is a remedial physical training and dietary/nutritional guidance program designed to assist Midshipmen in passing the PFA and bringing body fat percentage to within Academy standards.

Intramurals: Over a four-year period, Midshipmen are expected to participate in varsity athletics, club sports or intramurals. The Academy encourages this participation to help Midshipmen remain physically fit, learn from the challenges of athletic competition, and develop a lifetime commitment to healthy physical activity. For Midshipmen who choose not to participate at the varsity or club level, there are ample opportunities to join intramural activities. Company Officers are responsible for monitoring Midshipmen to ensure that all students are taking advantage of the diverse athletic opportunities that the Academy offers.

Waterfront Activities

The Academy boasts one of the finest waterfront training programs in the country. With varsity, instructional and recreational programs available, there is something to offer every Midshipman, either competitively or professionally. As a result, nearly 40 percent of the student body participates in the curricular elective or extra-curricular programs, making the Yocum Sailing Center home to one of the most popular activities on campus.

To support the curricular educational program, there are several modern, specially- equipped vessels that are used for professional training in both core and elective programs. The flagship of the fleet is the 176-foot training ship, *KINGS POINTER*. The vessel gets underway for routine training throughout the week, and takes part in weekend and weeklong training cruises along the East Coast.

In addition to the *KINGS POINTER*, the waterfront operates the *LIBERATOR*, a 108 -foot former naval training vessel and the *ELIZABETH ANN*, a 65-foot tugboat. The waterfront also has a fleet of Rigid Inflatable Boats (RIBs) for a Fast Rescue Boat course, offered as an elective to upperclassmen with such interest.

In the extracurricular arena, the Varsity Intercollegiate Sailing Team is the most decorated team at the Academy. With 15 North American Collegiate Championship titles won, 42 sailors named to the All-America Sailing Team and the only school to have 6 team members named as Collegiate Sailor of Year, Kings Point sailors are successful competitors, including alumni who have gone on to win National and World Championships and one Olympic Silver medal. The Academy fields teams in seven sailing disciplines: coed, single-handed men and women and double-handed women and coed, coed sloops and coed team racing. The USMMA competes against nearly 300 college varsity and club teams throughout the United States, in seven regions, and is perennially ranked in the top 20 teams in the nation as published in Sailing World Magazine.

Our larger sailing vessels are raced by the Varsity Offshore Sailing Team. Midshipmen regularly compete in intercollegiate offshore events, including day and overnight open races from Annapolis, MD to Newport, RI. During summer break, the team also competes in such high-profile events as Block Island Race Week, the Newport to Bermuda Race, the Halifax Race and New York Yacht Club Race Week.

The Academy also offers Junior Varsity, recreational and instructional sailing programs during the fall, spring and summer months. The Kings Point fleet is comprised of keelboats ranging from 20 to 25-feet in length. The fleet is primarily used for the U.S. Sailing Basic Keelboat instructional course. Once certified, midshipmen can sign out a boat for recreational sailing on local waters.

For Midshipmen interested in competitive rowing, the Kings Point Varsity Rowing Team (Crew) offers a challenging program of headstyle races as well as sprint competition. The team has a state-of-the-art indoor rowing tank, weight room and erg machines and four new carbon fiber four- and eight-person shells. Competing in novice, lightweight and women's regional events, the team annually travels to regattas such as the Head of the Charles and the Dad Vail National Championship.

The USMMA Power Squadron provides a direct supplement to the professional training in the educational programs. Ship handling, navigation and engineering skills are honed as the Power Squadron gets underway for training daily. Several smaller vessels serve as recreational and fishing vessels for the program. Each vessel is manned, maintained and commanded by Midshipmen who get underway each weekend for training, goodwill and VIP cruises, fishing and program support throughout the region.

Extracurricular Clubs and Activities

Land Hall is the site of the Joseph B. Williams Midshipmen Activities Center and serves as the focal point of many extracurricular and recreational activities. The building contains club and meeting rooms, and is used for informal dinners and parties. The office of the Director of Student Activities is located here, as well as the Midshipman Pub. The Academy hosts over 30 Midshipman Clubs that are active throughout the Academic Year.

Musical Activities

The Regimental Band, nicknamed "George M. Cohan's Own," along with the Fanfare Trumpets, has been acclaimed for their distinctive marching and concert performances. In a typical year the band will perform at USMMA football games, in the New York City Saint Patrick's Day Parade, various parades in New York and New Jersey, at the local Great Neck Memorial Day parade, as well as at every USMMA graduation. The band represents both the Academy and the maritime industry as "Musical Ambassadors to America." Every four years they also perform at the Presidential Inauguration Parade in Washington D.C.

The band has marched in the Macy's Thanksgiving Day Parade, as well as at numerous other prestigious events including the National Horse Show at Madison Square Garden, the Cotton Bowl Classic in Dallas, Texas, and the opening of both the Atlantic and Pacific wings at the WWII Museum in New Orleans. They also "stole the show" to quote the U.S. Consul General at the World

Festival of Military Bands held in Quebec City, Canada; this was a unique compliment considering that all 20 foreign bands were made up of professional musicians. The band sailed to Europe on Cunard's Queen Elizabeth 2 for the anniversary of D-Day.

Band members typically form smaller ensembles including the Fanfare Trumpets, Pep Band, and Jazz group based on student interest. The Fanfare Trumpets play at various events including the "Salute to Congress" Dinner held each year in Washington, D.C. The group has played for several U.S. Presidents and provides a distinctive ceremonial flourish.

The members of Band Company reside together for continuity of purpose and enjoy a long-standing reputation for academic excellence and regimental pride. The members work hard musically, academically and regimentally. Typically one Senior Midshipman serves as the Regimental Band Master, and works with the Director of Music, responsible for band practices, performances, and operations.

The Academy's Chapel Choir performs for Chapel Services and important events such as the USMMA holiday season Festival of Lights as well as the Graduation Baccalaureate Service, an annual Mets baseball game, and other performances around New York City.

Cultural Activities

The Academy is connected to New York City-about 20 miles away-by excellent train and bus service. Most Midshipmen have mastered navigation of Manhattan by the time they graduate. New York City offers unparalleled cultural amenities to students who are curious and willing to explore, and many of these resources can be enjoyed at very little expense. Popular music, theater, symphonies, operas, dance, ethnic neighborhoods, and museums-the list of things to do and see goes on and on.

The Academy, through its Arts and World Affairs Program, funds student-organized excursions to cultural events in New York City and other nearby locations. Every year, blocks of tickets to leading Broadway shows are made available so that Midshipmen may attend such events in groups. Other types of trips to Manhattan, as well as other cultural initiatives, are also supported.

The Museum

The American Merchant Marine Museum at the Academy allows Midshipmen to see firsthand our nation's rich maritime heritage. The museum's focus is the merchant marine from the beginning of steam propulsion to present day operations. Located in Barstow House on the Academy's McNulty Campus, the museum welcomes thousands of visitors each year.

Spiritual Life

Participation in religious activities and attendance at chapel services is voluntary, left to the needs and desires of the individual Midshipman. The U.S. Merchant Marine Memorial Chapel, built by public subscription as a tribute to the officers and men of the merchant marine who lost their lives in the service of the nation, serves all faiths.

Chaplains are available to assist Midshipmen with their spiritual and personal needs. The Protestant and Catholic programs include weekly Sunday services, a daily Catholic mass, Bible studies and social events. Other opportunities for spiritual growth include retreats, service projects, religious study programs, and sacramental preparation classes.

Jewish and Latter-Day Saint Midshipmen can participate in worship with local area congregations, and are offered opportunities to attend special holiday observances. Incoming freshmen (fourth classmen or plebes) may attend these services once the indoctrination period is completed.

Midshipmen of other faiths requiring special arrangements to attend a house of worship of their choice may obtain assistance from one of the chaplains.

Drug and Alcohol Policy

The Academy will not tolerate the use of illegal drugs or the abuse of alcohol by its Midshipmen. Students who are found in violation of the Academy's drug and alcohol policy face serious disciplinary action.

Each appointee to the Academy receives a urine toxicology screen during indoctrination. The Academy conducts a number of random and mandatory toxicology screenings including tests prior to graduation as a prerequisite for licensing in the USCG, and before commissioning in the U.S. Armed Forces. Health Services will also test whenever there is a reasonable suspicion that a student has used illegal substances.

The Office of the Commandant will impose disciplinary action for Midshipmen who violate the Academy's alcohol regulations. Consumption and possession of alcohol on Academy grounds, for example, will result in severe disciplinary action. In addition, Midshipmen who commit alcohol-related violations are referred for training and assessment.

Detailed instruction and information about the potential personal and professional consequences of substance abuse begins for each plebe candidate class upon entrance to the Academy. The relevant policies of the Academy, the USCG, the armed forces and the maritime industry are also reviewed. Since a current working knowledge of these policies is crucial to a Midshipman's success at the Academy and thereafter, additional training sessions are held regularly throughout the Midshipman's four years at the Academy. Midshipman Counseling Center offers an ongoing variety of educational, treatment and counseling services to assist Midshipmen in making decisions that maximize their opportunity to succeed.

As a prerequisite for appointment as a Midshipman in the Strategic Sealift Officer Program (SSOP), U.S. Navy Reserve (USNR), all students who are U.S. citizens are required to read and initial a statement of understanding which outlines U.S. Navy policy regarding drug and alcohol use and misuse, and the consequences for violating the policy.

Tattoo and Body Piercing Policy

In our current culture, tattoos, brands and body piercings are becoming more prevalent. The Academy has established a policy to address this issue, outlining what is acceptable and unacceptable. The purpose of the policy is to ensure that Midshipmen uphold a professional image when in uniform and avoid the serious health risks and long-term consequences associated with a tattoo, brand or body piercing.

The following tattoos and brands are prohibited: any that are on the face, neck or head; any that are prejudicial to good order or discipline, including those with offensive language, patently racist or extremist symbols, or sexually explicit depictions; and any that are partly or fully visible when wearing the Summer White uniform. Tattoos or brands falling into one of the above categories must be removed within six months of identification at the expense of the individual student. Entering plebe candidates identified with a prohibited tattoo or brand will have until December 1 of plebe year to have the tattoo or brand removed, or may be disenrolled.

The Academy's policy regarding body piercing prohibits the following: body piercing and jewelry on the tongue, or in areas that interfere with a student's duties, or that could lead to medical complications.

While in uniform, female midshipmen are permitted to wear single post earrings, one per ear on the earlobe. The earring must be gold, a 6mm (approximately 1/4") ball, plain with brushed matte finish. Small single pearl earrings are authorized for wear with Dinner and Formal Dress uniforms.

With the exception of earrings authorized for female Midshipmen, neither male nor female students are permitted to have body piercings with associated jewelry that are visible when wearing the Summer White uniform or an athletic uniform when engaged in athletic competition.

Motor Vehicles

All upperclass Midshipmen may own and use automobiles while in residence at the Academy. However, because of limited parking facilities on campus, only first classmen who have vehicles registered with Public Safety may keep their automobiles in a designated area of the Academy at their own risk. This is considered a privilege and is granted subject to compliance with Academy regulations. Upperclass students who are not authorized to use Academy parking facilities must make private garage arrangements since a local town ordinance prohibits overnight street parking.

Admissions

Each year, the Academy selects approximately 275 to 300 young men and women for entry into the Plebe Class. They come from every State of the Union, as well as from backgrounds reflecting every facet of American life. The Academy encourages diversity and recognizes the value of a Regiment of Midshipmen representing all races, colors, creeds and ethnic backgrounds found in this nation. Students from underrepresented groups are strongly encouraged to apply for admission. Certain general eligibility requirements for admission to the Academy do exist. Candidates must be of good moral character. They must be at least 17 years of age and must not have passed their 25th birthday before July 1st in the year of entrance. They must be citizens of the United States either by birth or by naturalization, except for a limited number of international Midshipmen specially authorized by Congress. Candidates must also meet the physical, security and character requirements necessary for appointment as U.S. Navy Reserve, Strategic Sealift Officer Program (SSOP) Midshipmen. Candidates must obtain a Congressional nomination to the Academy, submit a completed application, and qualify scholastically. The Office of Admissions evaluates each candidate's high school record and class rank, standardized SAT or ACT scores, recommendations from school officials, history of extracurricular activities, ability to pass a Candidate Fitness Assessment (CFA), and other evidence of character, leadership and potential for academic achievement. Admission to the Academy is based on all of the above factors. The application deadline is February 1st.

Definition of Terms

The terminology listed below will be used frequently in this section on Admissions. Candidates should familiarize themselves with these definitions:

Nominating Authority: A member of the U. S. Congress (House of Representatives or Senate). Each Representative and Senator may nominate 10 candidates to the Academy each year. The President and Vice President are **not** nominating authorities for the Academy. In addition, the U. S. Delegates for Guam, the Virgin Islands, the District of Columbia, and the Northern Mariana Islands, as well as the Resident Commissioner from the Commonwealth of Puerto Rico, may nominate 10 candidates annually.

Applicant: A man or woman applying to a member of Congress for a nomination to the Academy.

Nomination: A nominating authority's submission of an applicant's name as a nominee for consideration for appointment to the Academy. The applicant must be a resident of the same state or territory as the nominating authority. Students should apply to the Academy at the same time that their nomination request is being evaluated.

Candidate: A man or woman who has applied to the Academy and has been designated as under consideration for admission.

Qualified Candidate: A candidate who meets the minimum requirements on the standardized entrance examinations and has fulfilled the other minimum criteria for admission consideration.

Principal Candidate: A candidate who has been found scholastically qualified and who will be admitted to the Academy contingent upon the completion of prescribed medical, security and SSOP requirements.

Alternate Candidate: A scholastically qualified candidate who would replace principal candidates who decline or fail to qualify for a final appointment, or who do not meet the requirements of the SSOP program.

Letter of Assurance (LOA): A conditional offer that is contingent upon medical qualification, a passing CFA, and/or a congressional nomination.

Remedial: Term used to define the physical conditions requiring correction and/or compliance determined necessary by the U.S. Department of Defense Medical Examination Review Board (DoDMERB) in order to be medically qualified. (Example: removal of impacted wisdom teeth.)

Scholastic Requirements

Candidates should pursue studies in high school that will prepare them for the Academy's rigorous program. The quality of work is important. Seventy-seven percent of the Class of 2027 ranked in the top 40 percent of their high school class.

To be appointed to the Academy, candidates must have satisfactorily completed their high school education at an accredited secondary school or its equivalent. They must have earned at least 18 units of credit. Three of these credit units must be in English, three units in mathematics (from algebra, geometry and trigonometry), and one unit in physics or chemistry with a laboratory.

These requirements are minimums. The Academy strongly recommends that candidates take four years of mathematics and both physics and chemistry. Courses in mechanical drawing and machine shop are also desirable. Successful completion of pre-calculus or calculus satisfies the trigonometry requirement. By February 1st of the year in which they are seeking admission, candidates must submit with their official application evidence of completion of all academic requirements. All required courses must be completed by June 15, or by the date of graduation from high school. Time extensions will not be granted.

Testing

All candidates are required to take either the standardized College Board's Scholastic Assessment Test (SAT) or the standardized American College Testing Program's test (ACT) on scheduled dates at convenient testing centers throughout the country. Required testing must be completed by the first test date of the year in which admission is sought, unless permission is requested and received, in writing, from the Academy's Director of Admissions. The minimum standardized SAT or standardized ACT qualifying scores for admission will be determined by the Academy for each entering class. The Academy does not accept the non-standard, or un-timed, administration of the SAT or ACT. It is the candidate's responsibility to register for the examinations. Registration instructions are contained in information bulletins available at no cost to most secondary schools. Members of the U. S. Armed Forces should find copies available in their units' education offices. Testing and registration information is also available at <http://www.collegeboard.org> (for the College Board's SAT) or <http://www.act.org> (for the American College Testing Program). In the event that you have any questions concerning test requirements, or if you are unable to meet the established examination deadline date, contact the Academy's Office of Admissions. Candidates must request the testing agency to submit their test scores to the U. S. Merchant Marine Academy, Kings Point, New York 11024. The cost of the examination must be borne by the candidate. The Academy's SAT code number is 2923; its ACT code number is 2974.

Nominations

Candidates must be nominated to the Academy by a U. S. Representative or Senator (see previous definition). USMMA does not accept military service-connected nominations. Nominating authorities select their nominees by any methods they wish, which may include a screening interview. This screening may be administered as early as July of the year before appointment is sought. Nominees must reside in the state or territory that the nominating official represents, or have a "home of residence" in the state or territory represented by the nominating official.

A candidate should apply early for a nomination. Some nominating authorities establish deadline dates for the receipt of nomination requests in order to allow adequate time for processing and evaluating requests. The ideal time for a candidate to apply for a nomination is in May of the junior year in high school. Nominating authorities must submit the names of their nominees to the Academy by January 31st of the school year in which admission to the Academy is sought. Candidates should visit their nominating authorities' websites for additional information and instructions on requesting a nomination.

Visiting the Academy

Students who are considering attending the Academy are strongly encouraged to visit the campus. There are two types of visits available while Academy classes are in session.

Day Visit (Tuesdays, Thursdays, and Fridays) *For high school students and graduates.* This visit consists of an admissions briefing and an escorted campus tour. Students must arrive at the Office of Admissions no later than 10:30 a.m., when they will meet with an admissions officer who will provide information and answer questions. At noon, visiting students will be paired with a Midshipman escort for lunch with the Regiment of Midshipmen in Delano Hall. They then attend afternoon classes and activities with their escorts and finish at approximately 4:00 p.m.

Overnight Visit (Tuesdays and Thursdays) *Only for high school juniors or seniors, and graduates who started their application to USMMA.* This visit consists of an admissions briefing and accompanied overnight stay. Students must arrive at the Office of Admissions by 10:30 a.m. to receive an admissions brief by an admissions officer. At noon, visiting students will be paired with a Midshipman escort for lunch with the Regiment of Midshipmen in Delano Hall. They then attend regular afternoon classes and early evening activities, such as sports practices and club meetings. Visiting students will have dinner in Delano Hall and will stay overnight in the Midshipman escort's room. The following morning, they will have breakfast in Delano Hall, and attend morning classes with their escort. Their visit will conclude around noon (they do not have lunch again with the Regiment). Parents and family members (maximum of two) who arrive with the student are invited to participate in the admissions briefing. However, only the visiting student may eat meals and attend classes. Parents and family members may continue to tour the Academy on their own. Meals are available in the Seafarer Restaurant on the Academy grounds. Overnight accommodations can be arranged at

local hotels.

Briefing and Tour Only Visit (Tuesdays, Thursdays, and Fridays). Younger students may visit the Academy for a “Briefing Only” session, but may not participate in the Day or Overnight Visit programs until they have reached the higher grades detailed earlier. There are also several periods during the year when escorted visits to the Academy are not available, but a briefing with an admissions officer is possible:

- The weeks immediately before and after final exams;
- The week of break and the first week after Midshipmen return from break;
- The weeks of the winter holiday break;
- The period from the Friday before Memorial Day weekend until the middle of August; and
- Several "blackout" dates during the course of the academic year due to special campus events.

During the periods when escorted visits are not available, students may still arrange a "Briefing Only" session with an admissions officer. Note that this option is not available during the period in July when Indoctrination of Plebe Candidates is underway. The Academy campus is closed to visitors during Indoctrination.

Students interested in visiting the Academy should email the admissions office at admissions@usmma.edu to schedule an appointment. All visits must be scheduled at least one week in advance.

International Students

The Code of Federal Regulations (CFR) permits the appointment of Midshipmen from nations other than the United States. By law, no more than 30 international students may attend the Academy at any one time. International students interested in applying to the Academy may start an application on-line. They must contact the Office of Admissions at admissions@usmma.edu to obtain additional instructions for completing their application. All international applicants must take either the standardized SAT or the standardized ACT. Applicants for whom English is not a native language must also take the Test of English as a Foreign Language (TOEFL) examination. All completed international applications must be received no later than February 1st of the year of enrolling at the Academy. In order for an application to be complete, the Academy must receive all required application components to include all high school/secondary school (pre-university) and college/university transcripts (in English), your passing (at or above minimum) SAT and/or ACT scores, and your passing (at or above minimum) TOEFL scores (if required). If your original transcript is not in English, you must also provide a certified translation of your transcript in English. If the Academy does not receive all of the above information by February 1, the application for admission will be denied.

All international applicants must also supply the Office of Admissions with the results of a full medical examination, in English, or accompanied by a certified English translation. All Academy Midshipmen, as required by regulation, must be physically qualified to sit for the USCG-administered Merchant Marine Officer license examinations before completing their studies and graduating from the Academy. Medical disqualification is a cause for rejection of admission to the Academy. The United States does not offer any scholarships, grants or other financial assistance or aid to international students for attending the Academy. All expenses are the student's responsibility. An international student must demonstrate an ability to pay for an Academy education before receiving an appointment to the Academy. The Academy does provide enrolled international students with the same required uniforms, textbooks and transportation allowances that U. S. citizen Midshipmen receive.

Security Clearance

Upon enrollment at the Academy, students will be required to complete an electronic form for a security clearance. A security clearance is necessary for commissioning into the armed forces. All questions must be answered accurately and truthfully so that your clearance is not delayed. To verify their place of birth, students will be asked to submit a certified copy of their birth certificate. Address any inquiries about the security clearance to the Office of Admissions. (Note: Students must comply with security clearance requirements necessary to obtain Transportation Worker Identification Credential.)

Dual Citizenship

Applicants with dual citizenship may apply, but must be prepared to renounce their non-U.S. citizenship if required. Dual citizenship is not in and of itself disqualifying for eligibility purposes of obtaining a SECRET clearance. Students are no longer required to renounce their non-U.S. citizenship in order to receive a commission; however, security clearance requirements for assignment to specific designators may require such action. Additionally, travel on a non-U.S. passport is prohibited.

Applications

Students must complete the application prior to the February 1st deadline. Students are strongly encouraged to complete this application early even before receiving a nomination from a nominating authority. Early filing of an application will expedite processing of the admissions file.

Apply On-Line

Candidates must apply for admission to the Academy on-line at <https://www.usmma.edu/admissions>.

Medical Requirements

A candidate for admission to the Academy must meet the medical requirements for appointment as a U.S. Navy Reserve Midshipman. Medical examinations are conducted by a service academy examining facility designated by DoDMERB. DoDMERB is the Academy's screening authority and it makes the final decision on a candidate's medical qualifications. All candidates must be medically qualified for appointment by DoDMERB by April 16th of the year of entrance. The Office of Admissions will submit candidate names to DoDMERB for medical exam scheduling. It is the candidate's responsibility to pursue medical processing to its conclusion in a timely manner. Candidates can check on their medical status by referring to the DoDMERB website at <https://dodmerb.tricare.osd.mil/>. Candidates are encouraged to complete their medical exam as soon as possible.

Non-Swimmers

It is recommended applicants learn to swim before entering the Academy. Fourth classmen must demonstrate the ability to swim 100 yards using two basic strokes and 15 minutes of flotation. This requirement must be fulfilled prior to a Midshipman's first shipboard training period.

Appointments

Candidates are appointed competitively by the Academy for the vacancies allocated to their state or territory. Each state has an assigned number of appointees proportional to its representation in Congress. After the Academy has selected its principal appointees, the remaining qualified candidates will be designated as alternates; to be appointed in order of merit should openings occur within their respective states. In the event that a state fails to satisfy its allotment, appointments to fill the unfilled vacancies are determined from the national list of alternates, ranked in order of merit as described in the previous paragraph. A candidate's competitive standing is established by test scores on the standardized SAT or ACT examination, high school class rank, academic record, evidence of leadership potential, interest in a maritime career, and other factors that are considered effective indicators of motivation and probable completion of a degree program. Bonus points are awarded to candidates with at least six months of sea service aboard merchant or naval vessels. On or before April 10, if the application was complete and received by February 1, students will be notified of their selection as a principal, conditional or alternate candidate, or if they fail to meet the requirements. Alternate candidates are subsequently notified if and when they are designated as principal candidates. Plebe Candidates report to the Academy for Indoctrination in late June or early July.

Secretarial Appointments

The Secretary of Transportation may appoint up to 50 qualified applicants per year to the Academy. Any applicant to USMMA can be considered for a Secretarial Appointment. Applicants without a congressional nomination are encouraged to contact their regional admissions officer to request consideration under this appointment authority.

The Secretary of Transportation may appoint up to 40 qualified individuals per year sponsored by the Academy to attend preparatory school. USMMA provides partial sponsorships for candidates to attend a two-semester preparatory school program at either Marion Military Institute in Marion, Alabama or New Mexico Military Institute in Roswell, New Mexico. The purpose of the Sponsored Preparatory School Program is to academically and physically prepare sponsored candidates for the rigors of USMMA when appointed the following year.

Rolling Admission

Highly qualified candidates with a completed application (including essay, high school transcript with senior courses in progress, and three Teacher Evaluations) may receive early notification of their appointment after a thorough evaluation of their qualifications. All other candidates will be notified of their status no later than April of the year in which they seek admission. Late appointments may be offered after May 1, in order to fulfill the incoming class size requirement.

Orientation/Briefing Day for Appointees

Appointees may be invited to visit the Academy on a selected date in mid-April for a briefing program. Appointees have an opportunity to meet and discuss the Academy's program with Midshipmen, faculty and administrative personnel. Attendance is strictly voluntary. Appointees are responsible for travel arrangements and expenses associated with this visit.

Enlisted Armed Forces Personnel

An individual who enters the Academy in an enlisted status in a component of the U.S. Armed Forces or U.S. Coast Guard will not have their existing military service obligation (MSO) terminated. However, attendance at the Academy may or may not be credited towards fulfillment of an MSO, depending on the circumstances of each case and the military department involved. Disposition of enlisted members of the U.S. Armed Forces who are admitted to the Academy and accept appointment into the Navy Reserve SSOP is addressed in Title 10, United States Code, Section 516, as well as in applicable service regulations. An enlisted member of the U. S. Armed Forces seeking admission to the Academy should obtain additional details and guidance from their command personnel office or career counselor, to include guidance for requesting a conditional release from their service.

Summary

Here, in summary, are the steps necessary for admission to the U. S. Merchant Marine Academy:

1. Request a nomination by contacting a U. S. Representative or Senator, preferably by May of your high school junior year.
2. Complete and submit an application, along with the high school transcript and official SAT and/or ACT scores, to the Academy beginning in May of your junior year. All application components must reach the Academy no later than February 1st of the high school senior year. Applications completed early receive early attention.
3. Pass a physical and medical examination administered by DoDMERB.
4. Take either the College Board's standardized SAT or the American College Testing Program's standardized ACT examination no later than the first test date of the year seeking admission. The Academy does not accept the non-standard or un-timed administration of the SAT or ACT.
5. Successfully complete the Candidate Fitness Assessment (CFA) by February 1. Candidates are permitted multiple attempts to pass the CFA, but passing results must be received by the Academy by February 1. USMMA accepts the results of CFAs administered for other service academies.

Additional information may be obtained from:

Office of Admissions
U. S. Merchant Marine Academy
300 Steamboat Road
Kings Point, New York 11024
Telephone: (516) 726-5643
Toll Free Number: 1-866-546-4778
E-mail: admissions@usmma.edu
FAX: (516) 773-5390
Website: <https://www.usmma.edu>

Expenses and Financial Aid

The Federal Government pays the majority of the costs associated with enrollment at USMMA. Midshipmen receive tuition, room and board, uniforms, and textbooks at no cost. Basic medical and dental care are provided through the Academy's Office of Health Services. Midshipmen are responsible for all other costs associated with attendance at USMMA. It is the goal of the Office of Financial Aid to ensure that all students who are accepted to the Academy are able to attend, regardless of financial need.

Cost of Attendance

The Cost of Attendance (COA) is an estimate of costs that a student may incur while attending USMMA. It includes Midshipman Fees, an Academy-approved computer package, Plebe and Educational Kits, general supplies, miscellaneous expenses, and transportation costs for liberty and leave periods. With the exception of Midshipman Fees, these expenses are not payable directly to USMMA, but are used in calculations of financial aid eligibility. More information on USMMA's COA is available on the website at www.usmma.edu.

Expenses

Incoming Plebe Candidates must purchase the required items listed below prior to reporting to USMMA for Indoctrination, unless otherwise noted. These items **cannot** be paid from pending financial aid, scholarships, and college savings plan payments because these costs are paid to third parties (not USMMA). Plebe Candidates must cover these costs in advance and then be reimbursed with any remaining credit balance once excess funds are refunded to the Plebe Candidate via direct deposit. Federal Student Aid disbursements are processed not less than 30 days after the start of each term for Plebe Candidates. Direct deposit to an account at Navy Federal Credit Union (NFCU) will reduce the turnaround time for refunds of financial aid (Federal Student Aid, VA benefits, 529 payments, and scholarships).

Passport and TWIC

Midshipmen must have a current, signed Passport prior to reporting for Indoctrination. Passports expiring prior to 31 December 2029 must be renewed prior to reporting. U.S. citizens must obtain a Transportation Worker Identification Credential (TWIC), administered by the Transportation Security Administration (TSA), prior to reporting for Indoctrination. The cost of a Passport is approximately \$130 and a TWIC is \$125.25.

Plebe Kit*

For the convenience of Plebe Candidates, the Plebe Kit (complete, to proper specification, and pre-bundled) is available for a tax-free purchase from the USMMA Navy Exchange (NEX). The cost of this kit is approximately \$695. Incoming Plebe Candidates should refer to the *Logging In* book for additional information.

Educational Kit*

For the convenience of Plebe Candidates, the Educational Kit (complete, to proper specification, and pre-bundled) is available for a tax-free purchase from the USMMA Navy Exchange (NEX). The Educational Kit will **not** be available for purchase prior to September when the academic major is declared. The cost of this kit is approximately \$115 to \$219, depending on major. Incoming Plebe Candidates should refer to the *Logging In* book for additional information.

*Once Plebe Candidates take possession of their purchases from the NEX, no returns will be accepted. For questions about NEX purchases or to cancel your order prior to receipt of items, please email the USMMA NEX Manager at BEMUSMMA@nexweb.org.

Health Insurance

All Midshipmen are required to have an Academy-approved health insurance plan for health services that exceed the services offered through the Office of Health Services. Midshipmen must purchase the qualifying Student Health Insurance Plan (SHIP) through the Academy-sponsored provider unless they can provide proof that existing health insurance coverage meets all minimum coverage requirements established by USMMA. More information on health insurance requirements is available in the *Logging In* book or at <https://www.usmma.edu/academy-life/activities/services/health-services>.

Midshipman Fees

The Academy imposes Midshipman Fees in accordance with 46 CFR Part 310.62 (b) to cover the cost of personal services, which are provided on campus through service contracts. These personal services include:

- Wash-and-fold laundry services
- Tailor and seamstress services

Academic Year 2025-2026 Midshipman Fees

2025-2026 Academic Year	Class Year/Sailing Split					
	2029	2028	2027A/B	2027C	2026A/B	
Wash & Fold Laundry	\$591	\$394	\$197	\$394	\$591	\$394
Tailor/Seamstress/Pressing	\$318	\$212	\$106	\$212	\$318	\$212
Total Midshipman Fees:	\$909	\$606	\$303	\$606	\$909	\$606

Note: Midshipman Fees vary during the 2nd and 1st class years due to the number of terms in residence at USMMA. Midshipmen are not charged for fees during sailing periods.

Invoices and Payments

Midshipman Fees are payable in full for the entire academic year and are due 30 days prior to Indoctrination for incoming Plebe Candidates, or the first day of classes for returning Midshipmen. OAFM will invoice each Plebe Candidate and returning Midshipmen no later than 1 June 2025. Payment of Midshipman Fees can be made online at <https://www.pay.gov> with a credit or debit card, or by check or money order made payable to U.S. DOT/MARAD and mailed to:

Office of Academy Financial Management
Attn: Midshipman Fees
U. S. Merchant Marine Academy
300 Steamboat Road
Kings Point, NY 11024

Payment instructions will be included with Midshipman Fee invoices. Any check returned by the Academy's bank may be subject to a penalty fee.

Refund Policy

Indoctrination Period – A Plebe Candidate who declines his or her appointment after paying Midshipman Fees will receive a full refund of those fees. A Plebe Candidate who reports to Indoctrination and is separated during the Indoctrination period will receive a refund for the second and third terms in the Academic Year, but not for the first term. Midshipman Fees are not refundable for any portion of a term where a Midshipman is in residence at USMMA.

Regular Academic Year – Plebe Candidates and Midshipmen separated during a term are not eligible for a refund of Midshipman Fees for that term. If a Midshipman is in residence for any portion of a term, he or she is responsible for the term's fees. Midshipmen on hold who are waiting for academic or other Board review decisions will be charged Midshipman Fees for that term. Midshipmen who are disenrolled or set back to a later term will receive a refund only for future terms in the academic year. Refunds for future term Midshipman Fees will be refunded to the Midshipman's bank account on file in the Academy Office of Financial Management. It is the responsibility of the Midshipman to ensure his or her bank account information is always up to date to avoid delays in receiving refunds.

IRS Form 1098-T

The Academy does not issue an IRS Tax Form 1098-T, Tuition Statement, for Midshipman Fees collected for the laundry and tailor services. These services are considered personal expense items and not qualified tuition or related expenses. Further questions should be referred to your tax advisor.

Banking Facilities

While there are many banking institutions in the town of Great Neck, most Midshipmen find it more convenient to use the Navy Federal Credit Union, which is a banking facility located on the Academy campus. The Credit Union accommodates Midshipmen by permitting them to open checking or savings accounts, which do not require a minimum balance. There is a Credit Union ATM on campus so that Midshipmen will have easy access to funds.

Official Travel

Midshipmen are reimbursed for official travel at the Federal Government-authorized mileage rate, or at the cost of traveling by common carrier at the government rate, whichever is less.

Federal Student Aid

USMMA participates in the Federal Student Aid (FSA) programs for Pell Grants and Direct Loans (also known as Title IV Financial Aid). Plebe Candidates and returning Midshipmen who are interested in receiving financial aid are urged to file the Free Application for Federal Student Aid (FAFSA) starting October 1st each year. The FAFSA will determine financial need and consequently a student's eligibility for Pell Grant and Subsidized Direct Loan awards. Unsubsidized Direct Loan awards are available to qualified students who do not demonstrate financial need. The total of all Federal Student Aid awards cannot exceed the Midshipman's Cost of Attendance. More information on financial aid is available at www.usmma.edu.

Satisfactory Academic Progress

Midshipmen receiving Federal Student Aid funds must adhere to the academic standards as outlined in the USMMA Academic Policies Handbook. Midshipmen with a deficiency status must adhere to the Academic Review Board's determination and meet all terms and conditions in order to retain eligibility for Title IV financial aid. At no time shall a Title IV recipient's ratio of attempted credits to earned credits fall below 67%.

Return of Title IV Financial Aid

The Office of Financial Aid is required by Federal statute to recalculate Federal Student Aid (Title IV financial aid) eligibility for Midshipmen who withdraw, are dismissed, or take a leave of absence prior to completing 60% of a term. The recalculation is based on the percentage of aid earned, which is the number of days completed up to the last date of attendance divided by the total days in the term. Any break of five days or more is not counted as part of the days in the term. If a student earned less aid than was disbursed, the student may be required to return a portion of the funds, resulting in a debt to the Academy or an overpayment to the U.S. Department of Education. If a student earned more aid than was disbursed, USMMA would calculate eligibility for a post-withdrawal disbursement. Students are strongly encouraged to contact the Office of Financial Aid for more information prior to a change in enrollment status.

In the event that a return of Title IV funds is required, refunds are allocated in the following order:

1. Unsubsidized Direct Loan
2. Subsidized Direct Loan
3. Direct PLUS Loan (Parent PLUS)
4. Federal Pell Grant

The student must return the amount of Title IV funds for which he or she is responsible no later than 45 days after the institution determined that the student withdrew.

Other Financial Aid

USMMA does not offer institutional aid, but welcomes and encourages outside scholarships and grants to offset a Midshipman's Cost of Attendance. Scholarship award checks should be sent to the Office of Financial Aid and made payable to United States Merchant Marine Academy (USMMA). Contact the Office of Financial Aid for information regarding the use of Veterans Benefits. Questions about payments from 529 College Savings Plans should be directed to the Office of Academy Financial Management.

Service Obligation After Graduation

When you graduate from the U.S Merchant Marine Academy, you will have achieved a milestone in your academic career. Since the Federal Government has a substantial investment in your education, you will be required to fulfill the terms of a service obligation after graduation. This obligation is set forth in this section of the catalog. The merchant marine is a component of the Nation's defense. It is the Federal Government's intention to have a sufficient number of highly trained licensed officers available to operate American flag merchant vessels in both peace and war. Your service in the merchant marine is the vehicle through which this goal is achieved.

The Law

With the passage of the Maritime Education and Training Act of 1980 (P.L. 96-453), Congress imposed mandatory service obligations, outlined in this section, for USMMA graduates. The obligations relate to a graduate's employment, maintenance of a U.S. Coast Guard license, commissioning in the reserve forces of the United States, and reporting compliance to the U.S. Maritime Administration (MARAD).

Graduate Service Obligation

Employment

A graduate may fulfill the employment obligation portion of his/her service obligation in five ways as follows:

Serve in the foreign and domestic commerce and the national defense of the U.S. for at least five (5) years following graduation as:

1. Merchant Marine Officer, afloat, U.S. flag vessel;
2. Unlicensed billet, afloat, U.S. flag vessel;
3. Commissioned Officer on Active Duty in the U.S. Armed Forces or the National Oceanic and Atmospheric Administration (NOAA) Corps;
4. Shoreside, Federal Government in a significantly maritime-related position that serves the national security interest;
5. Shoreside, non-Federal Government maritime-related (if a determination has been made that no afloat positions are available for you, you may serve ashore in a U.S. maritime-related industry or marine science profession).

Maintenance of U.S. Coast Guard License

Maintain (or upgrade) the license as an officer in the U.S. merchant marine, including all endorsements held at graduation, for six (6) years following graduation.

Service as a Commissioned Officer in the Reserves of the U.S. Armed Forces of the United States:

Apply for and accept, if tendered, an appointment as a commissioned officer in the reserves of the U.S. Armed Forces for at least eight (8) years following graduation.

Report Compliance to MARAD

Report to MARAD annually concerning your compliance with the foregoing maritime service obligations, as set forth in the next paragraph.

You are required to complete a service obligation report in each year following your year of graduation to inform MARAD about your compliance with your service obligations. Regardless of the date of your graduation, each graduate must submit a service obligation report from between January 1 and March 1, starting the first January 1 after graduation and for at least an additional eight (8) consecutive years thereafter. Graduates are required to file reports through to the last report to demonstrate that all obligations have been satisfied. If a graduate completes the service obligation within the eight years following graduation, each graduate should only have to file a total of nine (9) reports in order to give information on all eight (8) years of service obligation. Midshipmen enrolled at the Academy will be required to register in MARAD's web-based compliance tracking system at <https://mscs.marad.dot.gov>.

Service as a Merchant Marine Officer

Unless a graduate serves as an active duty commissioned officer in the U.S. Armed Forces or in the NOAA Corps or the USPHS Corps in a maritime-related position with the Federal Government serving the national security interests of the United States, he/she must first seek employment in the maritime industry as a licensed officer aboard vessels operating under the U.S. flag. Employment aboard such ships supports the government's objective of providing fully trained Merchant Marine Officers to operate U.S. flag merchant vessels in peace and war.

Per 46 CFR 310 A, a satisfactory year of afloat employment under Section 310.8(a)(6) means the lesser of (i) 150 days; (ii) the number of days determined by MARAD to be reasonable for a calendar year; or (iii) for purposes of calculating a satisfactory year, a year is defined as the 12-month period following graduation, with consecutive 12-month periods thereafter until the completion of the incurred service obligation.

Maritime-Related Ashore Employment Option

Graduates who are unable to obtain employment as a licensed officer aboard a U.S.-flag vessel may work in a U.S. maritime-related industry, profession, or marine science. Prior to accepting a position, the graduate must seek a determination from the Maritime Administrator that such U.S.-flag vessel employment is not available. Additionally, the graduate must obtain approval of the position as meeting the maritime-related requirement. Among the areas of employment the Administrator may consider acceptable as U.S. maritime-related employment are positions of operational, management and administrative responsibility with organizations or maritime-related fields, such as:

- Steamship companies
- Stevedoring companies
- Vessel chartering and brokerage operations
- Cargo terminal operations
- Naval architecture
- Shipbuilding and repair
- Municipal and state port authorities
- Port development
- Marine engineering
- Tug and barge companies
- Oil and mineral operations
- State agencies involved in maritime affairs.

The foregoing list does not set forth all types of positions, organizations, or fields that may be acceptable to satisfy the service obligation.

Waiver of the Service Obligation

The Federal Government realizes that there may be situations that prevent graduates from fulfilling the requirements of the service obligation contract. Waivers may be granted in cases where there would be undue hardship in the performance of satisfactory maritime service or when it is impossible to perform satisfactory maritime service due to an accident, illness or other justifiable reason as determined by the Maritime Administrator.

Deferment of the Service Obligation

The Maritime Administration may grant, upon request, a deferment for a period not to exceed two years of all or part of the service obligation contract. This deferment privilege exists only for graduates considered to have superior academic and conduct records while at the USMMA. Deferments are available only to individuals desiring to enter a marine or maritime-related course of study at an accredited graduate school or to accept a scholarship of national significance, as determined by the Maritime Administrator, in a non-maritime related field.

Active Military Duty

Active duty as a commissioned officer with the Navy or any other branch of the U.S. Armed Forces or the NOAA Corps is a way of satisfying the employment portion of the service obligation contract. Graduates of the Academy have an understanding of naval procedures and operations that contribute to our national defense requirement for an adequate merchant marine, and can make a

valuable contribution to the U.S. Armed Forces.

Federal Government Service

A graduate may fulfill the employment portion of the commitment by serving in a full time position with a federal agency, if that position serves the national security of the United States in a maritime-related area. Positions with the Department of Homeland Security in the maritime sector are one example of acceptable Federal positions.

Navy Reserve Appointment

Any U.S. citizen who applies to the Academy also applies for an appointment as Midshipman, Strategic Sealift Officer Program, U.S. Navy Reserve. Your application will be reviewed by the Office-In-Charge of the Department of Naval Science. To qualify for a Midshipman appointment you must have satisfactorily completed the Department of Defense Medical Examination Review Board (DoDMERB) entrance physical. You must also complete an Electronic Personnel Security Questionnaire (EPSQ) prior to reporting to the Academy.

The ESPQ is an honesty and loyalty check required prior to receiving a security clearance. This questionnaire must be honestly and thoroughly completed. Issues that will cause a problem include failure to report an arrest by civil or federal authorities, and possessing a non-U.S. passport, or dual country citizenship. If any of these issues apply, you should contact the Academy's Department of Naval Science for clarification of Navy policy and for guidance on resolving the issue.

In the event that a Midshipman fails to display the qualities of leadership, character, and aptitude expected of a prospective commissioned officer in the U.S. Armed Forces, the Naval Service Training Command (NSTC) may terminate the Midshipman's appointment. The Midshipman may also be separated from the Academy in such a case.

Reserve Military Duty

In order to comply with your service obligation you must apply for and accept an appointment as a commissioned officer in the U.S. Navy Reserve, U.S. Coast Guard Reserve, or any other Reserve or National Guard unit of an armed force of the United States.

With the recommendation of the Officer-In-Charge, Department of Naval Science, and the Academy Superintendent, you will receive your commission at graduation. Although officer appointment applications may be made to any armed force, the majority of graduates will be appointed as ensigns in the Strategic Sealift Officer Program, U.S. Navy Reserve. After appointment as Ensign, USNR, you must perform satisfactorily in the Navy Reserve for eight years. An individual's requirements and options under this program will vary depending on whether the graduate is working at sea or ashore. Details will be provided by the Department of Naval Science either through their course of instruction or upon request.

Breach of Service Obligation

Graduates who breach their service obligation contract may be ordered to active duty in the U.S. armed forces. In lieu of being ordered to active duty, graduates may be required to repay the cost of the education provided by the Federal Government. The Maritime Administration's Office of the Associate Administrator for Policy and International Trade will make a determination of whether a graduate has breached the service obligation. Such decisions may be appealed to the Maritime Administrator.

The Regimental Program



The Regimental Program at the U.S. Merchant Marine Academy will be a vital part of your educational experience as a Midshipman. This program has one aim-to develop superior junior leaders for the merchant marine fleet, the Armed Forces of the United States, and the shoreside maritime and transportation industries. Regimental activities and policies are designed to provide Midshipmen with opportunities to experience "hands-on" leadership from the small unit level up to the Midshipmen Officer billets at the Battalion and Regimental level.

Although you will devote the greatest portion of your daily schedule to academic pursuits, you will find that the regimental system also makes demands on your time. These two elements of Midshipman life are highly integrated, and produce graduates who are educated and trained for inclusion in the next generation of America's leaders.

The four classes of Midshipmen bear the same designation used at the other U.S. service academies. Freshmen are called fourth classmen or plebes; sophomores, third classmen; juniors, second classmen; and seniors, first classmen.

The Class System

Fundamental to regimental life is the "class system," a program which assigns responsibilities, duties and privileges to Midshipmen based on their seniority. First classmen exercise command of the regiment under the supervision of the Academy's Commandant of Midshipmen and staff. First classmen have opportunities to serve in Midshipman officer billets. Underclassmen may serve as Midshipman petty officers, squad leaders, and team leaders, while plebes learn "follower-ship." The regiment, under the Midshipman regimental commander and staff, is divided into three battalions, each under a Midshipman battalion commander. The battalions include two companies, each led by a Midshipmen company commander.

Top-ranking Midshipman officers work closely with the Commandant in creating and carrying out policies relating to all facets of Midshipman life. They receive practical leadership experience that helps develop self-confidence, improves their understanding of human relations, and instills in them a sense of responsibility. First classmen are granted privileges commensurate with their seniority and responsibility.

Second and third classmen are primarily responsible for assisting the first class in the training of the fourth class. The upperclassmen ensure that plebes display proper military bearing and practice correct military etiquette. The privileges granted the second and third classes are less than those enjoyed by the first class, but more liberal than those given to plebes.

The fourth class year is a period of conditioning for both life at sea and many other undertakings that face Midshipmen during their training and, afterward, as graduates. Regimental training is a primary reason why graduates of the Academy are highly valued by all segments of the maritime industry and the U.S. Armed Forces for their bearing, maturity and ability to get the job done.

Plebe Indoctrination Program

Your experience at the Academy will begin in early July when you report aboard as a "plebe candidate" for a rigorous three-week indoctrination program. During indoctrination, you will undergo an intensive program of regimental training. One of the most important abilities you will learn is time management. Your daily indoctrination schedule is demanding and time-consuming, requiring you to perform and accomplish tasks in specified periods. Plebe year is very challenging. Under the class system, plebes have the greatest number of obligations and the fewest privileges. However, during your first year at the Academy, you will become well versed in the institution's traditions, develop a keen sense of pride and esprit de corps, and adjust to the requirements of the regimental program.

A Midshipman's Daily Schedule

During the academic year, the Monday through Friday daily routine is as follows:

0625	Reveille
0615-0730	Breakfast
0630-0710	Room inspection
0710	Colors formation
0730-1140	Morning Classes
1150	Lunch formation
1150-1230	Lunch
1230-1535	Classes
1600-1900	Athletics, extracurricular activities
1730-1930	Dinner
2000-2300	Study period

Friday afternoons and Saturday mornings are used for regimental parades and inspections, but the remainder of each weekend includes liberty and recreation.

Leave and Liberty

Midshipmen are granted a week of leave (vacation) at the end of the first trimester, usually in early November. They also receive four days of leave for Thanksgiving, and about two weeks of leave during the Christmas/New Year period. There is one week of spring leave at the end of the second trimester. This **may** coincide with the Easter and Passover holidays. In addition, depending on sea split, some Midshipmen may receive annual leave during the month of July.

It is important that travel arrangements for leave periods do not extend beyond the beginning or end of those periods. Weekend liberty is available for all four classes, with some restrictions for the Plebe class, and for upperclass watch standers. The extent of this liberty is dependent on class, academic and regimental performance, and Academy obligations. Plebes are the only class not normally granted overnight liberty on weekends.

In addition to weekend liberty, upperclass midshipmen are provided the opportunity to leave the Academy grounds for dinner a number of times each term, again depending on class, academic and regimental performance, and academy obligations.

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The Honor Code

The Academy's Honor Code is taught, administered, and led by members of the Regiment of Midshipmen, as guided by the Director of Leadership and Ethics Development/Honor Advisor.

The Honor Code is so simple that it is contained in one sentence: "A Midshipman will not lie, cheat or steal." This statement must be completely accepted and supported by every member of the regiment.

All Midshipmen quickly learn that the honor code is designed to guide them in their daily living, as they develop a greater understanding personal and professional honesty, integrity, and discipline. We believe the Honor Code gives greater value to academic degrees, and instills in Midshipmen the principles of honesty and integrity.

Every junior leader in the maritime industry or the Armed Forces is expected to set standards of honesty and integrity. Every leader's character will be tested at least once during their career. The Academy's Honor Code prepares officer candidates for that test. Honor Code training and education begins during your first day in the Regiment of Midshipmen, and continues during your tenure at the Academy.

Information Technology

The maritime industry could not function without the use of information technology. The same holds true for educating future mariners and marine industry professionals. The U.S. Merchant Marine Academy has a proud history of pioneering the use of simulators and simulation software in the engineering, transportation and logistics fields. Simulators and simulation software provide Midshipmen the opportunity to acquire skills and knowledge critical to success in the maritime industry.

Many courses throughout the curriculum involve computer applications. Access to computer applications is provided by state-of-the-art laptop computers, computer equipped laboratories and electronic classrooms.

The Department of Information Technology serves as the focal point for planning, funding and operating the information technology infrastructure at the Academy.

Personal Computers

Each incoming plebe must arrive on campus with a laptop that meets campus hardware requirements. This laptop is the only personal computer a Midshipman may have on campus. All Midshipman laptops are connected to the Academy's network and network resources. The Academy network complies with all federal rules and regulations regarding personal computer and network use. Midshipmen are required to honor these rules and regulations without exception.

Midshipmen are authorized to purchase personal desktop printers at their own expense with printer driver software compatible with the Microsoft Windows 7 Enterprise operating system.

Network

The Academy is a "wired" campus, providing access throughout the dormitories, classrooms, library and public spaces, employing a combination of wired and wireless services. The local area network is based on a fiber-optic backbone and the latest high speed switching fabric available.

The network employs a state-of-the-art blade server and storage area network technologies, and provides access to e-mail, e-learning, file storage, web services, course management systems, public instant messaging networks, Voice Over IP (VoIP) telephony, video-conferencing, and under restricted circumstances, access to public e-mail networks. The Academy maintains a 200 megabit-per-second connection to the Internet.

The Academy is deploying a comprehensive wireless access system to complement access already available in electronic classrooms, the Bland Library, and selected public areas. Approximately 350 new wireless access points will be located in the barracks buildings and throughout the outdoor areas of the Academy's 82 acres campus.

Simulation

In 1975, the U.S. Maritime Administration installed a complex Visual Bridge Shiphandling Simulator at the USMMA for purposes of maritime training and controlled research into seafarer/ship issues. Designated as the Computer Aided Operations Research Facility (CAORF), this simulator was the first marine simulator to use Computer-Generated Imagery and set the standard for all simulators of this kind that followed. CAORF also hosts part-task and full mission simulators for ship propulsion systems. The

Department of Marine Transportation maintains separate, state-of-the-art navigation laboratories in Bowditch Hall.

Programs

The Curriculum

The U.S. Merchant Marine Academy provides a four-year academic program leading to a bachelor of science degree, a license as a merchant marine officer (issued by the U.S. Coast Guard), and an appointment as a commissioned officer in a reserve component of the U.S. Armed Forces (including the Strategic Sealift Officer Program of the U.S. Navy). The curriculum is demanding, comprehensive and stimulating. It has been carefully designed to ensure that graduates are professionally competent, trained for leadership and responsibility, and well-rounded intellectually.

Midshipmen complete a series of required courses in the core curriculum. These courses provide a nucleus of knowledge in key academic and professional subjects. In the second trimester of the fourth class year, Midshipmen begin preparing for a deck or engine license. They spend approximately one year at sea during their course of study at the Academy.

The academic year at the Academy is divided into three trimesters spanning eleven months, from late July to late June. Credit for courses is awarded in semester credit hours.

Core Curriculum

The core curriculum has several components:

- A. Mathematics
- B. Science
- C. English
- D. History
- E. Comparative Literature and Writing
- F. Naval Science
- G. Physical Education and Ship's Medicine
- H. Management Internship(Management Majors Only)
- I. Sea Year

Specific courses meeting these requirements are identified later in the course description section.

Components A-E provide a basis for Midshipmen's general education, further supplemented in their major courses.

Major Programs

Midshipmen select their major course of study from among six programs:

- A. **Marine Transportation** - A program combining nautical science and maritime business management.
- B. **Maritime Logistics and Security** - A program combining nautical science, business, logistics, and maritime security topics.
- C. **Marine Engineering** - An engineering program focused on shipboard engineering operations.
- D. **Marine Engineering and Shipyard Management** - A program based on a marine engineering core and emphasizing the management of shipyards and other large engineering endeavors. Accredited by the Engineering Accreditation Commission (EAC) of ABET.
- E. **Marine Engineering Systems** - An engineering program emphasizing marine engineering design. Accredited by the Engineering Accreditation Commission (EAC) of ABET.

License Programs

Midshipmen who have selected the Marine Transportation major or the Maritime Logistics and Security major prepare for the third

mate (deck officer) license examination. Marine Engineering, Marine Engineering Systems, and Marine Engineering and Shipyard Management majors prepare for the third assistant engineer (engineering officer) license examination.

Sea-Year Training

After completing the fourth class year in late June, half of the students (designated the B-Split) will go to sea for one trimester, return to campus for the second trimester of their third class year, then return to sea for the third trimester plus the first trimester of their second class year. They will return to campus for the second trimester of the second class year and remain on campus through graduation.

The other half of the class (designated the A-Split) will remain in residence for the first trimester of the third class year, will go to sea for the second trimester and return to campus for the third trimester. Then they will go to sea for the second and third trimesters of their second class year, return for the first trimester of their first class year and remain on campus until graduation. The choice of Split, A or B, is made in the first trimester of fourth class year. Preference is granted to those Midshipmen participating in varsity athletics or in other programs like the regimental Band.

Elective Courses

Elective courses enhance the Midshipman's professional training and their intellectual curiosity. The number of elective courses varies by major.

Graduation Requirements

The minimum requirements for graduation are:

- Pass the required resident and sea project courses. (A four-year course of study is required by 46USC310.52.) A maximum of 5-1/2 years in attendance is permitted to complete degree requirements.
- Earn the number of semester credit hours required by the curriculum in which you are enrolled. Exemptions from courses completed at other accredited institutions or waived due to physical disability may lower the number of credits required for some students.
- Earn a Cumulative Quality Point Average (CQPA) of at least 2.000 for all courses taken.
- Earn a Cumulative Grade Point Average of at least 2.000 for all courses specifically required in your major.
- Pass all required license competencies.
- Pass the examination and receive a USCG third mate or third assistant engineer license. Those ineligible to receive the license (e.g., foreign national, medical disqualification for a duty-related injury) must nevertheless, pass the examination.
- Satisfy all necessary certifications as required by the USCG as specified for your program.
- Pass all required Naval Science courses prescribed by the Department of the Navy.
- Apply for and accept, if offered, an appointment as a commissioned officer in a Reserve Component of the U.S. Armed Forces (including the Strategic Sealift Officer Program of the U.S. Navy).
- Pass the Academy Physical Fitness Test.

Academic Division Goals

Upon successful completion of a rigorous curriculum that includes general education and professional areas of study, graduates of the Academy will have the knowledge, skills and abilities to:

1. Serve immediately as merchant marine officers with the foundation to advance to master or chief engineer.
2. Work in approved maritime related shore positions with the capability to rise to senior levels.
3. Lead with integrity, competence and high ethical standards.
4. Work in teams constructively toward common goals.
5. Think critically and creatively and solve complex problems.
6. Communicate proficiently both orally and in writing.
7. Demonstrate information literacy and proficiency in the use of information technology.
8. Understand and function effectively in the socially, economically, politically and culturally diverse global environment.
9. Pursue continued intellectual and professional development.

Programs of Study

Prior to entering the academy, applicants are asked to list a tentative major. Near the end of the first trimester, plebes are asked to affirm their initial selection or to choose another major. An extensive orientation program and introductory professional course- work in the first trimester will assist them in making that decision. All major programs are described in this section.

The courses taken at the Academy following fourth class year will vary greatly depending on the major. The following is a detailed description of the major curricula and the course of study each entails. The exact sequence of the course offerings in some cases may be modified due to staffing needs.

Department of Marine Transportation

The Department of Marine Transportation offers two majors: Marine Transportation and Maritime Logistics & Security. These majors share a common nautical science and business core.

In addition to satisfying traditional higher education accreditation requirements, these programs must also comply with both federal guidelines and international standards related to maritime education. The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended, (to which the United States is a signatory) sets qualification standards for masters, officers and watch- keeping personnel on seagoing merchant ships. STCW was adopted in 1978 by conference at the International Maritime Organization (IMO) in London, and entered into force in 1984. The Convention was significantly amended in 1995 and again in 2010. The STCW Code and the U.S. Code of Federal Regulations establish the standards that the U.S. Coast Guard uses to license U.S. Merchant Mariners.

Nautical science courses prepare Midshipmen specifically for their shipboard responsibilities and the USCG third mate's license examination. The Nautical Science core also provides broad marine-oriented education to produce a well-trained and informed ship's officer. This program of study includes general as well as specific maritime subjects which familiarize Midshipmen with a ship as a system, its equipment and its operation. Specifically, Midshipmen will study terrestrial and celestial navigation; the rules for collision avoidance; vessel stability and trim; marine materials handling aboard ship and in port; safety of life at sea; pollution control and prevention; marlinespike seamanship; meteorology; maritime communications; integrated electronic navigation systems such as radar, ARPA, and ECDIS; bridge resource management; and the various domestic and international rules and regulations that govern these activities.

Maritime business courses give Midshipmen a broad understanding of management issues and specific skills required for critical thinking and decision making in business. These skills complement the professional education of Midshipmen and strengthen their performance as shipboard officers. Midshipmen also gain a basic foundation in business administration allowing them to pursue shore-side opportunities in the maritime field. The curriculum recognizes that marine transportation is part of the total transportation system, which is crucial to both domestic and international commerce and the nation's defense. The specific courses in this area include The Business of Transportation, Principles of Economics, Principles of Management, Marketing, Fundamentals of Business Law, Admiralty and International Law, Accounting and Finance, Maritime Economics, Vessel Personnel with Designated Security Duties, International Business, Principles of Leadership and Maritime Leadership and Management.

Both Marine Transportation majors have been designed to give the students a greater understanding of the business aspects of the maritime industry. But the courses offered are not general business courses such as might be offered in a typical business school. Kings Point is in a unique position to offer a program that teaches business skills as they relate to and within the context of the maritime industry. It therefore represents a program that is both academically sound and related to the career goals of our students. The department administers the Marine Transportation program which includes the nautical science and business components of the Deck License curriculum for Midshipmen. It is also responsible for the curriculum offered through the Maritime Logistics & Security Program. The department offers courses in the disciplines of Nautical Science, Maritime Business, Maritime Security, and Logistics and Intermodal Transportation.

Courses are given in the core curriculum to provide Midshipmen with nautical science and management skills, as well as knowledge of the transportation processes necessary for successful careers in the maritime industry. The core includes courses in navigation, seamanship, marine safety, dry and liquid cargo operations, integrated navigation systems, meteorology, management, law, economics, transportation, logistics, and intermodal and port operations.

In addition, the department offers advanced elective courses in relevant areas. These courses can be grouped to give Midshipmen a more in-depth exposure to a particular subject area. Students interested in concentrating their electives are advised to contact faculty advisors for specific information and advice.

The department's administrative and faculty offices, classrooms and most of its laboratories are located in Bowditch Hall. These include interactive integrated navigation and maritime communications simulators; tanker, container, and port loading simulators; and navigation laboratories. The simulators offer numerous ship models and geographic areas complete with visual presentations. Students interact with up to 50 contacts and maneuver through simulated land databases utilizing fully integrated bridge electronics and Electronic Chart Display Information Systems (ECDIS). All labs have the same fully integrated navigation simulation software package installed. Each lab is designed to run any combination of interacting ownships, depending on the exercise design. The system provides a realistic display of all weather conditions, various atmospheric phenomena, and time of day, visibility and illumination effects, reflection, and glare on the water. Tides and currents can also be adjusted, as needed, and programmed to

change during the simulation with buoys generating current feathers. In addition to the overall condition parameters, environmental zones can also be set-up to create such conditions as fog banks, local wind, current effects, and local wave effects.

A seamanship laboratory in Bowditch Hall is maintained and operated by departmental faculty for instruction in splicing rope and traditional marlinspike seamanship. The department also provides hands-on training in ship operations utilizing the vessels and dockside facilities of the Waterfront Training & Operations Department. An important component of deck officer training is achieved through the use of a Full Mission Visual Bridge Ship-handling Simulator (VBSS), located in the Computer Aided Operations Research Facility (CAORF) in Samuels Hall. VBSS provides the bridge watch team with a visual representation of various harbors as seen from the bridge of a vessel, including landmasses, navigational aids, traffic ships and miscellaneous buildings and structures. Realistic radar images, fathometer readings, and audio cues (depicting ship sounds, buoy sounds, and environmental and weather-related sounds) aid in completing the scene. The system is capable of introducing malfunctions and or failures to any of the equipment including the engine and steering systems. The system realistically presents the total marine scene and is primarily used for the training of Bridge Resource principals. It is also used to support other ship handling and navigation courses offered at the Academy.

Department of Marine Transportation Faculty

Note: For all faculty listings in this section of the catalog, the year when a faculty member joined the Academy staff follows each name. Other information includes the individual's faculty rank, degrees earned, where obtained, professional licenses held, and military affiliation. In a department that includes more than one discipline, the faculty member's area of specialization is indicated. Superscripts used in this listing are:

1. faculty member has received the Academy's Vice Admiral Gordon McLintock Award for Exemplary Leadership
2. faculty member has received the Academy's Sue Alice McNulty Award for Distinguished Teaching.
3. faculty member has received the Captain C.A. Prosser Award for Student Service.
4. faculty member has held command at sea of an unlimited tonnage vessel.

Department Head

CAPT John F. Ryan, USMS (2002)

(Nautical Science)

B.S., SUNY Maritime College M.S., SUNY Maritime College
License: Master Steam or Motor Vessels Any Gross Tons, Oceans (STCW); Tankerman PIC; Medical PIC; Fast Rescue Boat.
Military: Captain U.S. Navy

Assistant Department Heads

CAPT Sean P. Tortora, USMS (2011)⁴

(Nautical Science)

M.S., SUNY Maritime College B.S., SUNY Maritime College
License: Master of Steam and Motor Vessels of Any Gross Tons, Oceans (STCW); Master Towing Vessels, Upon Oceans; Master Underway Replenishment Vessels; Fast Rescue Boat; Medical Care PIC; GMDSS Operator; VSO; Tankerman PIC-DL; USCG TOAR; USCG DE for TOAR; DP Basic

Timothy W. McLellan (2016)

(Maritime Business, Logistics and Security) Director, Maritime Logistics and Security Program

B.S., Marine Transportation/Minor Business Management, U.S. Merchant Marine Academy M.B.A., Transportation Systems, The Wharton School, University of Pennsylvania Certified Protection Professional (CPP), American Society of Industrial Security (ASIS) International Project Management Professional (PMP), Project Management Institute (PMI) Certified in Logistics, Transportation and Distribution (CLTD), Association for Supply Chain Management (ASCM) License: Second Mate of Steam or Motor Vessels of Any Gross Tons, Oceans
Military: LCDR, USNR (HON)

Professors

Changqian Guan (2002)

(Maritime Business, Logistics and Transportation) Diploma, Jimei Institute of Navigation, Fujian, P.R. China B.S., SUNY

Maritime College

M.S., SUNY Maritime College

Ph.D., New Jersey Institute of Technology

License: Third Mate, Unlimited (People's Republic of China)

CAPT Kevin Hasson, USMS (2011)⁴

(Nautical Science)

B.S., Marine Transportation, U.S. Merchant Marine Academy M.B.A., Supply Chain Management, Business Analytics, Syracuse University
License: Master Steam and Motor Vessels of Any Gross Tons, Oceans (STCW); GMDSS Operator, Fast Rescue Boat, ECDIS, Medical Care PIC, VSO/CSO/FSO
Military: LCDR, U.S. Navy

CDR Carolyn Hunter, USMS (2015)

(Nautical Science)

B.E. Naval Architecture, SUNY Maritime College M.S., Maritime System, Stevens Institute of Technology; License: Master of Steam & Motor Vessels Unlimited, Any Gross Tons Upon Oceans; Vessel Security Officer; Medical PIC; Tankerman DL-PIC

CAPT David B. Moskoff, USMS (2001)⁴

(Nautical Science)

B.S., SUNY Maritime College
MIT Masters of Information Technology, American Intercontinental University
License: Master of Steam and Motor Vessels of Any Gross Tons, Oceans (STCW); GMDSS Operator; First Aid Provider; ECDIS; VSO, CSO, FSO; ABS/QE ISM/ISO Lead Auditor (Ret.); ABS Surveyor (Ret.); AWO RCP Lead Auditor (Ret.); Military: Lieutenant USNR (Ret.)

CAPT Timothy D. Tisch, USMS (2002)⁴

(Nautical Science)

B.S., SUNY Maritime College
M.S., U.S. Naval Postgraduate School Ph.D., U.S. Naval Postgraduate School
License: Master of Steam or Motor Vessels of Any Gross Tons, Oceans (STCW); GMDSS Operator

Associate Professors

Paul Barchitta (2011)

(Maritime Business)
B.S., Finance, St. John's University M.B.A., Marketing, St. John's University
Post-Graduate Advanced Certificate, Business Education, New York University

CDR Matthew Bonvento Daleo, USMS (2018)

(Nautical Science)
A.A.S., Marine Technology, Mount West Community and Technical College B.S., Marine Transportation, SUNY Maritime College
M.S., International Transportation Management, SUNY Maritime College
License: Chief Mate of Self Propelled Vessels not including Auxiliary Sail, Unlimited Tonnage upon Oceans, GMDSS Operator, FRB, Medical First-Aid Provider, Vessel Security Officer, ECDIS, NTSB Marine Accident Investigation, ISM, ISPS, MLC Internal Auditor

CDR William B. Brewer, USMS (2015)

(Nautical Science)
B.S., U.S. Coast Guard Academy M.S., SUNY Maritime
License: Master of Steam or Motor Vessels of not more than 1600 gross tons, Oceans (STCW); Chief Mate of Steam or Motor Vessels of Any Gross Tons, Fast Rescue Boat; GMDSS Operator
Military: Lieutenant Commander, USCG (Ret.)

CDR Sarah Daleo, USMS (2017)

(Nautical Science)
B.S., Marine Transportation, SUNY Maritime College
M.S., International Transportation Management, SUNY Maritime College
License: Master of Self Propelled Vessels not including Auxiliary Sail, Unlimited Tonnage upon Oceans, Tankerman PIC - Dangerous Liquid (DL) Cargoes. GMDSS Operator, OICNW, RFPNW, FRB, Advanced Oil and Chemical Tanker Cargo Operations, Medical First-Aid Provider, Basic and Advanced Firefighting, Vessel Security Officer, ECDIS

CAPT Kevin Clarke, USMS (2012)

(Nautical Science)
B.S., SUNY Maritime
License: Master of Steam or Motor Vessels of not more than 1600 gross tons, Oceans (STCW); Chief Mate of Steam or Motor Vessels of Any Gross Tons, Fast Rescue Boat; GMDSS Operator
Military: Chief Warrant Officer 3 (8880A1, USAR (Ret))

CAPT Preston C. De Jean, USMS (2011)

(Maritime Business)
B.S., University of Louisiana at Lafayette J.D., Southern University Law Center
LL.M. Tax, Golden Gate University - San Francisco Member of the Bar: State of Louisiana
Military: Lieutenant Colonel, Logistician, USAR (Ret.)

David Gilmartin (2011)

(Maritime Business)
B.S., Marine Transportation, USMMA M.B.A., Baruch College J.D., Duquesne Law School

CAPT John L. Lutz, USMS (2005)

(Nautical Science)
B.S., U.S. Merchant Marine Academy
License: Master of Steam or Motor Vessels of Any Gross Tons, Oceans (STCW); GMDSS Operator

Amit J. Mokashi (2023)

(Maritime Business, Logistics and Security)

M.Sc. Maritime Operation (LJMU, UK)
G.L.S. Global Logistics (CSULB, US) Ph.D., Marine Policy (UDeI, US)
PB2 Post-Doctoral Bridge to Business (GEM, France)
License: Chief Engineer, Unlimited, Steamships & Motorships. Tankerman, Chemical & Petroleum. (MCA, UK)

CAPT Jamie J. Rock, USMS (2012)⁴

(Nautical Science)
B.S., SUNY Maritime College
M.S., International Transportation Management, SUNY Maritime College Certificate: Supply Chain Logistics
License: Master of Steam and Motor Vessels of Any Gross Tons, Oceans (STCW95) VSO; FSO, CSO Medical PIC; GMDSS Operator and Maintainer

CDR Peter A. Schneider, USMS (2011)

(Maritime Business)
B.S., MIT
M.B.A., Baruch College, City University of New York
Ph.D., Business, Graduate Center, City University of New York

Hsinrong P. Wei (2016)

(Maritime Business)
B.S., Chung-Hsing University
M.B.A., Finance & Investment, Baruch College, City University of New York Ph.D., Economics, Graduate Center, City University of New York

CAPT James Zatwarnicki, USMS (2018) ⁴

(Nautical Science)
B.S., Marine Transportation, SUNY Maritime College
M.S. International Transportation Management, SUNY Maritime College
License: Master of Steam and Motor Vessels of Any Gross Tons, Oceans; Master of Towing Vessels (STCW); GMDSS Operator/Maintainer; Medical Care Provider; ECDIS VSO/FSO/CSO

Assistant Professors

CDR Micheal Fiorenza, USMS, (2023)

(Nautical Science)
B.S., Marine Transportation, SUNY Maritime College;
M.S., International Transportation Management, SUNY Maritime College MBA Fordham University
License: Master of Steam & Motor Vessels Unlimited, Any Gross Tons Upon Oceans;
Vessel Security Officer; Ship Handling at Management Level; Tankerman DL-PIC; Medical Person in Charge; ECDIS

CDR Ryan O'Toole, USMS (2018)

(Nautical Science)
B.S., Marine Transportation, SUNY Maritime College
License: Master of Steam or Motor Vessels of Any Gross, Upon Oceans (STCW) GMDSS Operator, Vessel Security Officer, Fast Rescue, ECDIS
Dynamic Positioning Operator -Unlimited

CDR James Rogin, USMS (2023)

(Nautical Science)
B.S., SUNY Maritime College
M.S., Education Technology, SUNY Stony Brook Certificate: Supply Chain Logistics
License: Chief Mate of Steam and Motor Vessels of Any Gross Tons, Oceans (STCW95) VSO; FSO, CSO; GMDSS Operator, ECDIS, FRB

Professors Emeriti

CDR Dennis Compton, USMS (Ret.)

B.S., Marine Transportation, SUNY Maritime College
M.S., Transportation Management, SUNY Maritime College
License: Master, Inland Steam or Motor Vessels of Any Gross Tons; Chief Mate of Steam or Motor Vessels of Any Gross Tons, Oceans (STCW95)

CAPT Douglas A. Hard, USMS (1966)^{1,2,4}

(Marine Transportation)
B.S., U.S. Merchant Marine Academy M.B.A., Pennsylvania (Wharton)
M.S., Polytechnic Institute of New York
License: Master of Steam or Motor Vessels of Any Gross Tons, Oceans, Military: Captain, USNR (Ret.)
Naval Convoy Commodore

CAPT Brian J. Hall, USMS (1997)

(Nautical Science)
B.S., U.S. Merchant Marine Academy M.S., SUNY Maritime College
License: Master Steam or Motor Vessels Any Gross Tons, Oceans (STCW95); Tankerman PIC; Medical PIC; Fast Rescue Boat, GMDSS, VSO, ECDIS
Military: Captain U.S. Navy (Ret)

CAPT John S. Helmick, USMS (1995)⁴

(Logistics and Security)
B.A., University of Miami Ph.D., University of Miami
License: Master of Steam, Motor, Auxiliary Sail, and Sail Vessels of Any Gross Tons, Oceans

CAPT Robert J. Meurn, USMS (Ret.)^{1,2,4}

(Marine Transportation: 1978-2003)
B.S., U.S. Merchant Marine Academy M.A., George Washington University
License: Master of Steam or Motor Vessels of Any Gross Tons, Oceans.
Military: Captain, USNR (Ret.)

CAPT George Sandberg, USMS (Ret.)⁴

(Marine Transportation: 1990-2011)
M.S., Applied Science, SUNY Stony Brook B.S., Meteorology and Oceanography, SUNY Maritime College License: Master of Steam or Motor Vessels of Any Gross Tons, Oceans.

CDR Paul Zerafa, USMS (Ret.)

(Marine Transportation: 1985-2017)
B.S., Meteorology and Oceanography, SUNY Maritime College
M.S. Computer Science, New York Institute of Technology
M.S., Management Engineering, Long Island University
License: Master of Steam or Motor Vessels of Any Gross Tons, Oceans.

Marine Transportation Majors

Marine Transportation, BS

Program Learning Outcomes

The Marine Transportation program will support the Academy's Institutional Learning Outcomes by providing education and training that will enable midshipmen to demonstrate the knowledge, understanding, and proficiency needed to effectively and professionally:

1. Serve as an Officer in Charge of a Navigational Watch and Able Seafarer with the requisite National credential and International endorsements (any gross tons upon oceans)
2. Employ sound and safe seamanship practices and cargo handling skills
3. Apply Terrestrial, Celestial, and Electronic Navigation skills and Navigation Law
4. Use Information Technology skills needed by a ship's officer and a maritime related shoreside professional
5. Utilize problem solving and critical thinking skills required by a ship's officer and as a maritime related shoreside professional
6. Apply business, transportation, and logistics concepts needed to serve as a ship's officer and to work as a maritime related shoreside professional with the foundation to rise to senior levels
7. Employ leadership and teamwork skills needed to serve as a ship's officer and as a maritime related shoreside professional
8. Use communication skills, both oral and written, needed to serve as a ship's officer and as a maritime related shoreside professional
9. Preserve and enhance security aboard vessels and in maritime related shoreside facilities

Marine Transportation Program

The primary goal of the core Marine Transportation program is to provide Midshipmen with the knowledge and skills required to prepare students to serve as a deck officer aboard a merchant ship. Courses in the core curriculum provide Midshipmen with nautical science and management skills, as well as knowledge of the transportation processes necessary for successful careers in the maritime industry. The core includes courses in navigation, seamanship, marine safety, dry and liquid cargo operations, integrated navigation systems, meteorology, management, law, economics, and transportation.

Graduates of the Marine Transportation program, with their broad educational background, complemented by specific management and business skills, have a wide variety of career opportunities. Job opportunities include serving aboard merchant ships as a deck officer, in terminal operations management, ship operations, ship and cargo surveying, port administration, stevedoring, and related positions. All branches of the Armed Forces offer possibilities for active duty. The U.S. Coast Guard commissions graduates to serve in marine inspection, maritime security, and environmental regulation. Graduates can also serve in state and federal government agencies that regulate transport and commerce; in the Foreign Service; and in research and policy analysis positions. The sample curriculum for both A, B and C splits follows.

Marine Transportation, A-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
NAUT110 - Basic Firefighting and Safety
ECME101 - Introduction to Marine Engineering I
MATH101 - Calculus 1
CHEM100 - General Chemistry
LITR101 - Composition and Literature
PE&A120 - First Aid
PE&A125 - Self Defense Tactics
CMDT100 - Social Responsibility

Term 2

NAUT120 - Terrestrial Navigation 1
NAUT130 - Introduction to Navigation Law
BUSN210 - Principles of Economics
MATH130 - Calculus 2 Deck
PHYS110 - Physics 1
NASC100 - Introduction to Naval Science
PE&A110 - Basic Swimming
MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

NAUT125 - Terrestrial Navigation 2
NAUT160 - Ship Construction and Stability
BUSN101 - Principles of Leadership
BUSN110 - The Business of Transportation
PHYS120 - Physics 2
HIST100 - History of Sea Power
WTRF100 - Safety of Life At Sea

Term 4

NAUT210 - Integrated Navigation 1
NAUT250 - Dry Cargo Operations
NAUT270 - Maritime Comms-Lower Level
MATH200 - Probability and Statistics for Business
HIST200 - Regional Studies
NASC200 - Strategic Sealift
PE&A130 - Aquatic Survival

Term 5

NSEA210 - Cargo Operations 1
NSEA215 - Integrated Navigation Systems 1
NSEA220 - Seaman Ship 1
NSEA225 - Ship Structure and Stability 1
NSEA230 - Navigation I
NSEA235 - Navigation Law 1
ESEA245 - Marine Engineering for Deck

Term 6

NAUT215 - Integrated Navigation 2

NAUT225 - Celestial Navigation
COMP105 - Computer Programming
BUSN230 - Principles of Management
LITR201 - Literature

Term 7

NAUT220 - Liquid Cargo Operations
NAUT230 - Navigation Law
NAUT240 - Meteorology
NAUT310 - Integrated Navigation 3
HIST300 - Seminar in U.S. History since 1945
PE&A200 - Medical Care Provider

Term 8

NSEA310 - Cargo Operations 2
NSEA315 - Integrated Navigation Systems 2
NSEA320 - Seamanship 2
NSEA325 - Ship Structure and Stability 2
NSEA330 - Navigation 2

Term 9

NSEA335 - Navigation Law 2
NSEA340 - Maritime Business
NSEA345 - Maritime Communications at Sea
HSEA300 - Humanities Sea Practical

Term 10

NAUT330 - The Maritime Regulatory Environment
NAUT460 - Bridge Resource Management
NAUT420 - Advanced firefighting
BUSN300 - Fundamentals of Business Law
BUSN310 - Accounting and Finance
NASC400 - Naval Leadership and Ethics
Free Elective

Term 11

NAUT470 - Maritime Comms, Upper Level
BUSN420 - Maritime Economics
BUSN430 - Admiralty and Intern Law of the Sea
HIST400 - Seminar in Nat'l Secrty Policy & Strategy
BUSN440 - International Business
Free Elective

Term 12

NAUT400 - License Seminar
ECME480 - Marine Engineering for Deck Officers
BUSN410 - Marketing
NASC410 - Naval Science Senior Seminar
Humanities Elective
Free Elective

Total In-Resident Credits: 146.0

Total Credits: 167.0

Office of the Registrar															
United States Merchant Marine Academy								Major: Marine Transportation A							
Class of 2030 A & Beyond															
Term 1	C	L	CHr	CR	Term 2	C	L	CHr	CR	Term 3	C	L	CHr	CR	
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	NAUT120 Terrestrial Navigation 1	2	2	4.00	3.00	NAUT125 Terrestrial Navigation 2	3	0	3.00	3.00	
NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00	NAUT130 Introduction to Navigation Law	1	0	1.00	1.00	NAUT160 Ship Construction and Stability	3	0	3.00	3.00	
ECME101 Introduction to Marine Engineering	3	3	4.50	3.50	BUSN210 Principles of Economics	3	0	3.00	3.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	
MATH101 Calculus 1	3	0	3.00	3.00	MATH130 Calculus 2 Deck	3	0	3.00	3.00	BUSN110 The Business of Transportation	3	0	3.00	3.00	
CHEM100 General Chemistry	3	2	5.00	4.00	PHYS110 Physics 1	3	2	4.50	3.00	PHYS120 Physics 2	3	2	4.50	3.00	
LITR101 Composition & Literature	3	0	3.00	3.00	NASC100 Introduction to Naval Science	2	0	2.00	2.00	HIST100 History of Sea Power	3	0	3.00	3.00	
PE&A120 First Aid	0	2	1.00	0.50	PE&A110 Basic Swimming	0	2	2.00	1.00	WTRF100 Safety of Life at Sea	1	2	3.00	2.00	
PE&A125 Self Defense Tactics	0	2	1.00	0.50	MLOG120 VPDSO	0	1	1.00	0.00						
CMDT100 Social Responsibility				0.00											
16	11	23.50	19.50		14	7	20.50	16.00		17	4	20.50	19.00		
Term 4	C	L	CHr	CR	Term 5	C	L	CHr	CR	Term 6	C	L	CHr	CR	
NAUT210 Integrated Navigation 1	3	2	5.00	4.00	NSEA210 Cargo Operations 1				1.00	NAUT215 Integrated Navigation 2	3	2	5.00	4.00	
NAUT250 Dry Cargo Operations	3	0	3.00	3.00	NSEA215 Integrated Navigation Systems 1				1.00	NAUT225 Celestial Navigation	3	2	5.00	4.00	
NAUT270 Maritime Communications-Low	2	1	3.00	2.00	NSEA220 Seamanship 1				1.00	COMP105 Computer Programming	0	2	2.00	1.00	
MATH200 Probability & Statistics Business	3	0	3.00	3.00	NSEA225 Ship Structure and Stability 1				1.00	BUSN230 Principles of Management	3	0	3.00	3.00	
HIST200 Regional Studies	3	0	3.00	3.00	NSEA230 Navigation I				1.00	LITR201 Literature	3	0	3.00	3.00	
NASC200 Strategic Sealift	2	0	2.00	2.00	NSEA235 Navigation Law 1				1.00						
PE&A130 Aquatic Survival	0	2	2.00	1.00	ESEA245 Marine Engine for Deck				1.00						
16	5	21.00	18.00		0	0	0.00	7.00		12	6	18.00	15.00		
Term 7	C	L	CHr	CR	Term 8	C	L	CHr	CR	Term 9	C	L	CHr	CR	
NAUT220 Liquid Cargo Operations	2	2	4.00	3.00	NSEA310 Cargo Operations 2				2.00	NSEA335 Navigation Law 2				2.00	
NAUT230 Navigation Law	2	0	2.00	2.00	NSEA315 Integrated Navigation Systems 2				1.00	NSEA340 Maritime Business				1.00	
NAUT240 Meteorology	3	0	3.00	3.00	NSEA320 Seamanship 2				1.50	NSEA345 Maritime Communications at Sea				1.00	
NAUT310 Integrated Navigation 3	3	2	5.00	4.00	NSEA325 Ship Structure and Stability 2				1.50	HSEA300 Humanities Sea Practical					
HIST300 Seminar in U.S. History since 1945	2	0	2.00	2.00	NSEA330 Navigation II				2.00						
PE&A200 Medical Care Provider	0	2	2.00	1.00											
12	6	0.00	15.00		0	0	0.00	8.00		0	0	0.00	5.00		
Term 10	C	L	CHr	CR	Term 11	C	L	CHr	CR	Term 12	C	L	CHr	CR	
NAUT330 The Maritime Regulatory Environment	2	0	2.00	2.00	NAUT470 Maritime Communications, Upper Level	2	1	3.00	2.00	NAUT480 License Seminar	0	3	3.00	0.00	
NAUT460 Bridge Resource Management	1	2	3.00	2.00	BUSN420 Maritime Economics	3	0	3.00	3.00	ECME480 Marine Engineering for Deck Officers	2	1	3.50	2.50	
NAUT420 Advanced Firefighting	1	1	2.00	1.50	BUSN430 Admiralty and International Law	2	0	2.00	2.00	BUSN410 Marketing	2	1	3.00	2.50	
BUSN300 Fundamentals of Business Law	3	0	3.00	3.00	HIST400 Seminar in National Security Policy and Strategy	2	0	2.00	2.00	NASC410 Naval Science Senior Seminar	2	0	2.00	1.50	
BUSN310 Accounting and Finance	3	0	3.00	3.00	BUSN440 International Business	3	0	3.00	3.00	Humanities Elective	3	0	3.00	3.00	
NASC400 Naval Leadership and Ethics	2	0	2.00	2.00	Elective	3	0	3.00	3.00	Elective	3	0	3.00	3.00	
Elective	3	0	3.00	3.00											
15	3	18.00	16.50		15	1	16.00	15.00		12	5	17.50	12.50		
											Total In-Resident Credits				
											145.50				
											Total Credits				
											165.50				

Marine Transportation, B-Split Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
NAUT110 - Basic Firefighting and Safety
ECME101 - Introduction to Marine Engineering I
MATH101 - Calculus 1
CHEM100 - General Chemistry
LITR101 - Composition and Literature
PE&A120 - First Aid
PE&A125 - Self Defense Tactics
CMDT100 - Social Responsibility

Term 2

NAUT120 - Terrestrial Navigation 1
NAUT130 - Introduction to Navigation Law
NAUT160 - Ship Construction and Stability
MATH130 - Calculus 2 Deck
PHYS110 - Physics 1
HIST100 - History of Sea Power
PE&A110 - Basic Swimming
MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

NAUT125 - Terrestrial Navigation 2
NAUT210 - Integrated Navigation 1
NAUT250 - Dry Cargo Operations
BUSN101 - Principles of Leadership
PHYS120 - Physics 2
NASC100 - Introduction to Naval Science
PE&A130 - Aquatic Survival
WTRF100 - Safety of Life At Sea

Term 4

NSEA210 - Cargo Operations 1
NSEA215 - Integrated Navigation Systems 1
NSEA220 - Seaman Ship 1
NSEA225 - Ship Structure and Stability 1
NSEA230 - Navigation I
NSEA235 - Navigation Law 1
ESEA245 - Marine Engineering for Deck

Term 5

NAUT215 - Integrated Navigation 2
NAUT220 - Liquid Cargo Operations
NAUT225 - Celestial Navigation
NAUT240 - Meteorology
COMP105 - Computer Programming
BUSN210 - Principles of Economics

Term 6

NAUT230 - Navigation Law

NAUT270 - Maritime Comms-Lower Level
NAUT310 - Integrated Navigation 3
BUSN110 - The Business of Transportation
HIST200 - Regional Studies
NASC200 - Strategic Sealift

Term 7

NSEA315 - Integrated Navigation Systems 2
NSEA320 - Seamanship 2
NSEA325 - Ship Structure and Stability 2
NSEA330 - Navigation 2

Term 8

NSEA335 - Navigation Law 2
NSEA340 - Maritime Business
NSEA345 - Maritime Communications at Sea
HSEA300 - Humanities Sea Practical

Term 9

NAUT460 - Bridge Resource Management
BUSN230 - Principles of Management
MATH200 - Probability and Statistics for Business
HIST300 - Seminar in U.S. History since 1945
LITR201 - Literature

Term 10

NAUT330 - The Maritime Regulatory Environment
NAUT420 - Advanced firefighting
NAUT470 - Maritime Comms, Upper Level
BUSN410 - Marketing
NASC400 - Naval Leadership and Ethics
PE&A200 - Medical Care Provider
Free Elective

Term 11

BUSN300 - Fundamentals of Business Law
BUSN310 - Accounting and Finance
BUSN420 - Maritime Economics
HIST400 - Seminar in National Security Policy and Strategy
BUSN440 - International Business
Free Elective

Term 12

NAUT400 - License Seminar
ECME480 - Marine Engineering for Deck Officers
BUSN430 - Admiralty and International Law of the Sea
NASC410 - Naval Science Senior Seminar
Humanities Elective
Free Elective

Total In-Resident Credits: 146.0

Total Credits: 167.0

Office of the Registrar															
Class of 2030 B & Beyond					United States Merchant Marine Academy					Major: Marine Transportation B					
Term 1	C	L	Chr	CR	Term 2	C	L	Chr	CR	Term 3	C	L	Chr	CR	
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	NAUT120 Terrestrial Navigation 1	2	2	4.00	3.00	NAUT125 Terrestrial Navigation 2	3	0	3.00	3.00	
NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00	NAUT130 Introduction to Navigation Law	1	0	1.00	1.00	NAUT210 Integrated Navigation 1	3	2	5.00	4.00	
ECME101 Introduction to Marine Engineering	3	3	4.50	3.50	NAUT160 Ship Construction and Stability	3	0	3.00	3.00	NAUT250 Dry Cargo Operations	3	0	3.00	3.00	
MATH101 Calculus 1	3	0	3.00	3.00	MATH130 Calculus 2 Deck	2	0	3.00	3.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	
CHEM100 General Chemistry	3	2	5.00	4.00	PHYS110 Physics 1	3	2	3.50	3.00	PHYS120 Physics 2	3	2	3.50	3.00	
LITR101 Composition & Literature	3	0	3.00	3.00	HIST100 History of Sea Power	3	0	3.00	3.00	NASC100 Introduction to Naval Science	2	0	2.00	2.00	
PE&A120 First Aid	0	2	1.00	0.50	PE&A110 Basic Swimming	0	2	2.00	1.00	PE&A130 Aquatic Survival	0	2	2.00	1.00	
PE&A125 Self Defense Tactics	0	2	1.00	0.50	MLOG120 VPDSO	0	1	1.00	0.00	WTRF100 Safety of Life at Sea	1	2	3.00	2.00	
CMDT100 Social Responsibility				0.00											
	16	11	23.50	19.50		14	7	20.50	17.00		16	8	22.50	19.00	
Term 4	C	L	Chr	CR	Term 5	C	L	Chr	CR	Term 6	C	L	Chr	CR	
NSEA210 Cargo Operations 1				1.00	NAUT215 Integrated Navigation 2	3	2	5.00	4.00	NAUT230 Navigation Law	2	0	2.00	2.00	
NSEA215 Integrated Navigation Systems 1				1.00	NAUT220 Liquid Cargo Operations	2	2	4.00	3.00	NAUT270 Maritime Communications-Low	2	1	3.00	2.00	
NSEA220 Seamanship 1				1.00	NAUT225 Celestial Navigation	3	2	5.00	4.00	NAUT310 Integrated Navigation 3	3	2	5.00	4.00	
NSEA225 Ship Structure and Stability 1				1.00	NAUT240 Meteorology	3	0	3.00	3.00	BUSN110 The Business of Transportation	3	0	3.00	3.00	
NSEA230 Navigation I				1.00	COMP105 Computer Programming	0	2	2.00	1.00	HIST200 Regional Studies	3	0	3.00	3.00	
NSEA235 Navigation Law 1				1.00	BUSN210 Principles of Economics	3	0	3.00	3.00	NASC200 Strategic Sealift	2	0	2.00	2.00	
ESEA245 Marine Engine for Deck				1.00											
	0	0	0.00	7.00		14	8	22.00	18.00		15	3	18.00	16.00	
Term 7	C	L	Chr	CR	Term 8	C	L	Chr	CR	Term 9	C	L	Chr	CR	
NSEA310 Cargo Operations 2				2.00	NSEA335 Navigation Law 2				2.00	NAUT460 Bridge Resource Management	1	2	3.00	2.00	
NSEA315 Integrated Navigation Systems 2				1.00	NSEA340 Maritime Business				1.00	BUSN230 Principles of Management	3	0	3.00	3.00	
NSEA320 Seamanship 2				1.50	NSEA345 Maritime Communications at Sea				1.00	MATH200 Probability & Statistics Business	3	0	3.00	3.00	
NSEA325 Ship Structure and Stability 2				1.50	NSEA300 Humanities Sea Practical					HIST300 Seminar in U.S. History since 1945	2	0	2.00	2.00	
NSEA330 Navigation II				2.00						LITR201 Literature	3	0	3.00	3.00	
	0	0	0.00	8.00		0	0	0.00	5.00		12	2	14.00	13.00	
Term 10	C	L	Chr	CR	Term 11	C	L	Chr	CR	Term 12	C	L	Chr	CR	
NAUT330 The Maritime Regulatory Environment	2	0	2.00	2.00	BUSN300 Fundamentals of Business Law	3	0	3.00	3.00	NAUT400 License Seminar	0	3	3.00	0.00	
NAUT420 Advanced Firefighting	1	1	2.00	1.50	BUSN310 Accounting & Finance	3	0	3.00	3.00	ECME480 Marine Engineering for Deck C	2	1	3.50	2.50	
NAUT470 Maritime Communications, Upper Level	2	1	3.00	2.00	BUSN420 Maritime Economics	3	0	3.00	3.00	BUSN430 Admiralty and International Law	2	0	2.00	2.00	
BUSN410 Marketing	2	1	3.00	2.50	HIST400 Seminar in National Security Policy and Strategy	2	0	2.00	2.00	NASC410 Naval Science Senior Seminar	2	0	2.00	1.50	
NASC400 Naval Leadership & Ethics	2	0	2.00	2.00	BUSN440 International Business	3	0	3.00	3.00	Humanities Elective	3	0	3.00	3.00	
PE&A200 Medical Care Provider	0	2	2.00	1.00	Elective	3	0	3.00	3.00	Elective	3	0	3.00	3.00	
Elective	3	0	3.00	3.00											
	12	5	17.00	14.00		17	0	17.00	17.00		12	4	16.50	12.00	
											Total In-Resident Credits				145.50
											Total Credits				165.50

Marine Transportation, C-Split Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
NAUT110 - Basic Firefighting and Safety
ECME101 - Introduction to Marine Engineering I
MATH101 - Calculus 1
CHEM100 - General Chemistry
LITR101 - Composition and Literature
PE&A120 - First Aid
PE&A125 - Self Defense Tactics
CMDT100 - Social Responsibility

Term 2

NAUT120 - Terrestrial Navigation 1
NAUT130 - Introduction to Navigation Law
NAUT160 - Ship Construction and Stability
MATH130 - Calculus 2 Deck
PHYS110 - Physics 1
HIST100 - History of Sea Power
PE&A110 - Basic Swimming
MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

NAUT125 – Terrestrial Navigation 2
NATU210 – Integrated Navigation 1
NAUT250 – Dry Cargo Operations
BUSN101 – Principles of Leadership
PHYS120 – Physics 2
NASC100 – Introduction to Naval Science

Term 4

NAUT220 - Liquid Cargo Operations
NAUT240 - Meteorology
MATH200 - Probability & Statistics Business
BUSN210 - Principles of Economics
HIST200 - Regional Studies
WTRF100 - Safety of Life at Sea
PE&A130 - Aquatic Survival

Term 5

NAUT215 - Integrated Navigation 2
NAUT230 - Navigation Law
NAUT270 - Introduction to Maritime Communications
COMP105 - Computer Programming
BUSN110 - The Business of Transportation
LITR201 - Literature

Term 6

NSEA210 - Cargo Operations 1
NSEA215 - Integrated Navigation Systems 1
NSEA220 - Seamanship 1
NSEA225 - Ship Structure and Stability 1
NSEA230 - Navigation I
NSEA235 - Navigation Law 1
ESEA245 - Marine Engine for Deck

Term 7

NAUT225 - Celestial Navigation
NAUT420 - Advanced Firefighting
BUSN230 - Principles of Management
BUSN300 - Fundamentals of Business Law
NASC200 - Strategic Sealift
Free Elective

Term 8

NAUT310 - Integrated Navigation 3
NAUT330 - The Maritime Regulatory Environment
BUSN310 - Accounting & Finance
BUSN410 - Marketing
BUSN420 - Maritime Economics
HIST300 - Seminar in U.S. History since 1945

Term 9

NSEA310 - Cargo Operations 2
NSEA315 - Integrated Navigation Systems 2
NSEA320 - Seamanship 2
NSEA325 - Ship Structure and Stability 2
NSEA330 - Navigation II

Term 10

NSEA335 - Navigation Law 2
NSEA340 - Maritime Business
NSEA345 - Maritime Communications at Sea
HSEA300 - Humanities Sea Practical

Term 11

NAUT460 - Bridge Resource Management
NAUT470 - Maritime Communications, Upper Level
HIST400 - Seminar in National Security Policy and Strategy
NASC400 - Naval Leadership & Ethics
PE&A200 - Medical Care Provider
BUSN440 - International Business
Free Elective

Term 12

NAUT400 - License Seminar

ECME480 - Marine Engineering for Deck Officers
 BUSN430 – Admiralty and International Law
 NASC410 - Naval Science Senior Seminar

Humanities Elective
 Free Elective

Class of 2030 C & Beyond				Office of the Registrar				United States Merchant Marine Academy				Major: Marine Transportation C			
Term 1	C	L	Chr	CR	Term 2	C	L	Chr	CR	Term 3	C	L	Chr	CR	
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	NAUT120 Terrestrial Navigation 1	2	2	4.00	3.00	NAUT125 Terrestrial Navigation 2	3	0	3.00	3.00	
NAUT110 Basic Firefighting and Safety	0	2	2.00	2.00	NAUT130 Introduction to Navigation Law	1	0	1.00	1.00	NAUT210 Integrated Navigation 1	3	2	5.00	4.00	
ECME101 Introduction to Marine Engineering	3	3	4.50	3.50	NAUT160 Ship Construction and Stability	3	0	3.00	3.00	NAUT250 Dry Cargo Operations	3	0	3.00	3.00	
MATH101 Calculus 1	3	0	3.00	3.00	MATH130 Calculus 2 Deck	2	0	3.00	3.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	
CHEM100 General Chemistry	3	5	4.00	4.00	MATH150 Physics 1	3	3	3.50	3.00	PHYS120 Physics 2	3	2	3.50	3.00	
LITR101 Composition & Literature	0	2	2.00	2.00	HIST100 History of Sea Power	3	0	3.00	3.00	NASC100 Introduction to Naval Science	2	0	2.00	2.00	
PE&A120 First Aid	0	2	1.00	0.50	PE&A110 Basic Swimming	0	2	2.00	1.00						
PE&A125 Self Defense Tactics	0	2	1.00	0.50	MLOG 120 VPDSO	0	1	1.00	0.00						
CMDT100 Social Responsibility				0.00											
	16	11	23.50	18.50		14	7	20.50	17.00		15	4	17.50	16.00	
Term 4	C	L	Chr	CR	Term 5	C	L	Chr	CR	Term 6	C	L	Chr	CR	
NAUT220 Liquid Cargo Operations	2	2	4.00	3.00	NAUT215 Integrated Navigation 2	3	2	5.00	4.00	NSEA210 Cargo Operations 1				1.00	
NAUT240 Meteorology	3	0	3.00	3.00	NAUT230 Navigation Law	2	0	2.00	2.00	NSEA215 Integrated Navigation Systems 1				1.00	
MATH200 Probability & Statistics Business	3	0	3.00	3.00	NAUT270 Introduction to Maritime Comm	2	1	3.00	2.00	NSEA220 Seamanship 1				1.00	
BUSN210 Principles of Economics	3	0	3.00	3.00	COMP105 Computer Programming	0	2	2.00	1.00	NSEA225 Ship Structure and Stability 1				1.00	
HIST200 Regional Studies	3	0	3.00	3.00	BUSN110 The Business of Transportation	3	0	3.00	3.00	NSEA230 Navigation I				1.00	
WTRF100 Safety of Life at Sea	1	2	3.00	2.00	LITR201 Literature	3	0	3.00	3.00	NSEA235 Navigation Law 1				1.00	
PE&A130 Aquatic Survival	0	2	2.00	1.00						ESEA245 Marine Engine for Deck				1.00	
	15	6	21.00	18.00		13	5	18.00	15.00		0	0	0.00	7.00	
Term 7	C	L	Chr	CR	Term 8	C	L	Chr	CR	Term 9	C	L	Chr	CR	
NAUT225 Celestial Navigation	3	2	5.00	4.00	NAUT310 Integrated Navigation 3	3	2	5.00	4.00	NSEA310 Cargo Operations 2				2.00	
NAUT420 Advanced Firefighting	1	1	2.00	1.50	NAUT330 The Maritime Regulatory Envir	2	0	2.00	2.00	NSEA315 Integrated Navigation Systems 2				1.00	
BUSN230 Principles of Management	3	0	3.00	3.00	BUSN310 Accounting & Finance	3	0	3.00	3.00	NSEA320 Seamanship 2				1.50	
BUSN300 Fundamentals of Business Law	3	0	3.00	3.00	BUSN410 Marketing	2	1	3.00	2.50	NSEA325 Ship Structure and Stability 2				1.50	
NASC200 Strategic Sealift	2	0	2.00	2.00	BUSN420 Maritime Economics	3	0	3.00	3.00	NSEA330 Navigation II				2.00	
Elective	3	0	3.00	3.00	HIST300 Seminar in U.S. History since 19	2	0	2.00	2.00						
	15	3	18.00	16.50		15	3	18.00	16.50		0	0	0.00	8.00	
Term 10	C	L	Chr	CR	Term 11	C	L	Chr	CR	Term 12	C	L	Chr	CR	
NSEA335 Navigation Law				2.00	NAUT460 Bridge Resource Management	1	2	3.00	2.00	NAUT400 License Seminar	0	3	3.00	0.00	
NSEA340 Maritime Business				1.00	NAUT470 Maritime Communications, Upd	2	1	3.00	2.00	ECME480 Marine Engineering for Deck C	2	1	3.50	2.50	
NSEA345 Maritime Communications at Sea				1.00	HIST400 Seminar in National Security Po	2	0	2.00	2.00	BUSN430 Admiralty and International Law	2	0	2.00	2.00	
NSEA300 Humanities Sea Practical				1.00	NASC400 Naval Leadership & Ethics	2	0	2.00	2.00	NASC410 Naval Science Senior Seminar	2	0	2.00	1.50	
					PE&A200 Medical Care Provider	0	2	2.00	1.00	Humanities Elective	3	0	3.00	3.00	
					BUSN440 International Business	3	0	3.00	3.00	Elective	3	0	3.00	3.00	
					Elective	3	0	3.00	3.00						
	0	0	0.00	5.00		13	5	18.00	15.00		12	4	16.50	12.00	
										Total In-Resident Credits				145.50	
										Total Credits				165.50	

Total In-Resident Credits: 146.0
Total Credits: 167.0

Maritime Logistics & Security Program

The Maritime Logistics and Security Program is offered effective with the class of 2017 and beyond. The principal objective of the Maritime Logistics and Security Program is to provide Midshipmen with the knowledge and skills required to manage complex maritime and intermodal supply chains and to assist in addressing the security challenges facing the marine transportation system. This goal is achieved through an integrated program of study and experiential learning, the cornerstone of which is an academic major that builds on the Academy's traditional maritime core competencies.

Key themes of the major are the role of ports and marine transportation in logistics and transportation systems, the development of a systematic view of vessel and facility security, inculcation of a risk-based decision-making perspective, and the effective application of information technology.

Midshipmen who elect this major take the same core courses in Nautical Science, Maritime Business, and general education (math, science, and humanities) as do Midshipmen in the Marine Transportation major. They must also fulfill the requirements for a U.S. Coast Guard license as Third Mate.

Required courses specific to the Maritime Logistics and Security major include Integrated Logistics Management, Port and Terminal Operations, Vessel Security Officer/Company Security Officer (VSO/CSO), Maritime Security Research Seminar, Chartering and Brokerage, and the Capstone Project Seminar.

The major emphasizes the development of oral and written communications capabilities through written reports and formal presentations. Problem-solving and teamwork skills are enhanced through case studies and applied research projects for outside organizations that focus on real-world tasks identified through the program's extensive industry outreach efforts. Independent certification of professional competency through the American Society of Transportation and Logistics is an attractive optional component of the program. A guest lecture series brings prominent industry figures to the Academy to discuss current issues and challenges in the maritime logistics and security fields.

Career opportunities for graduates of the Maritime Logistics and Security Program following fulfillment of the seagoing obligation are diverse and rewarding. Service is possible in a wide variety of logistics and security-related occupations in commercial, government, and military domains. Examples of entry-level positions include logistics system coordinator, transportation analyst, Facility Security Officer, terminal supervisor, Special Agent, logistics/transportation consultant, and intelligence analyst, to name a few. The sample curriculum for both A, B and C splits follows:

Maritime Logistics & Security, A-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
 NAUT110 - Basic Firefighting and Safety
 ECME101 - Introduction to Marine Engineering I
 LITR101 - Composition and Literature
 MATH101 - Calculus 1
 CHEM100 - General Chemistry
 PE&A120 - First Aid
 PE&A125 - Self Defense Tactics
 CMDT100 - Social Responsibility **Credits: 0**

Term 2

NAUT120 - Terrestrial Navigation 1
 NAUT130 - Introduction to Navigation Law
 BUSN210 - Principles of Economics
 MATH130 - Calculus 2 Deck
 PHYS110 - Physics 1
 NASC100 - Introduction to Naval Science
 PE&A110 - Basic Swimming
 MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

NAUT125 - Terrestrial Navigation 2

Term 8
NSEA310 - Cargo Operations 2
NSEA315 - Integrated Navigation Systems 2
NSEA320 - Seamanship 2
NSEA325 - Ship Structure and Stability 2
NSEA330 - Navigation 2

Term 9

NSEA335 - Navigation Law 2
NSEA340 - Maritime Business
NSEA345 - Maritime Communications at Sea
HSEA300 - Humanities Sea Practical

Term 10

NAUT330 - The Maritime Regulatory Environment
NAUT420 - Advanced firefighting
NAUT460 - Bridge Resource Management
BUSN300 - Fundamentals of Business Law
BUSN310 - Accounting and Finance
MLOG310 - Vessel Security Officer/Company
Security Officer
MLOG400 - Port and Terminal Operations
NASC400 - Naval Leadership and Ethics

Term 11

NAUT470 Maritime Communications, Upper Level
BUSN420 - Maritime Economics
BUSN430 - Admiralty and International Law of the Sea
MLOG425 - Maritime Security Research Seminar
MLOG430 - Chartering and Brokerage
HIST400 - Seminar in National Security Policy and Strategy

Term 12

NAUT400 - License Seminar
ECME480 - Marine Engineering for Deck Officers
BUSN410 Marketing
MLOG450 - Capstone Project Seminar
NASC410 - Naval Science Senior Seminar
Humanities Elective

Total In-Resident Credits: 151.50
Total Credits: 171.50

PE&A120 - First Aid
PE&A125 - Self Defense Tactics
CMDT100 - Social Responsibility

Term 2

NAUT120 - Terrestrial Navigation 1
NAUT130 - Introduction to Navigation Law

LITR101 - Composition & Literature
 PE&A120 - First Aid
 PE&A125 - Self Defense Tactics
 CMDT100 - Social Responsibility

Term2

NAUT120 - Terrestrial Navigation 1
 NAUT130 - Introduction to Navigation Law
 NAUT160 - Ship Constructions and Stability
 MATH130 - Calculus 2 Deck
 PHYS110 - Physics 1
 HIST100 - History of Sea Power
 PE&A110 - Basic Swimming
 MLOG120 - VPDS

Term 3

NAUT125 - Terrestrial Navigation 2
 NAUT210 - Integrated Navigation 1
 NAUT250 - Dry Cargo Operations
 BUSN101 - Principles of Leadership
 PHYS120 - Physics 2
 NASC100 - Introduction to Naval Science

Term 4

NAUT220 - Liquid Cargo Operations
 NAUT240 - Meteorology
 MATH200 - Probability & Statistics Business
 BUSN210 - Principles of Economics
 HIST200 - Regional Studies
 WTRF100 - Safety of Life at Sea
 PE&A130 - Aquatic Survival

Term 5

NAUT215 - Integrated Navigation 2
 NAUT230 - Navigation Law
 NAUT270 - Introduction to Maritime Communications
 COMP105 - Computer Programming
 BUSN110 - The Business of Transportation
 LITR201 - Literature

Term 6

NSEA210 - Cargo Operations 1
 NSEA215 - Integrated Navigation Systems 1
 NSEA220 - Seamanship 1
 NSEA225 - Ship Structure and Stability 1
 NSEA230 - Navigation I
 NSEA235 - Navigation Law 1
 ESEA245 - Marine Engine for Deck

Term 7

NAUT225 - Celestial Navigation
 NAUT330 - The Maritime Regulatory Environment
 NAUT420 - Advanced Firefighting
 BUSN230 - Principles of Management
 MLOG200 - Integrated Logistics Management
 MLOG310 - Vessel Security Officer/Company Security Officer
 NASC200 - Strategic Sealift

Term 8

NAUT310 - Integrated Navigation 3
 BUSN300 - Fundamentals of Business Law
 BUSN310 - Accounting & Finance
 BUSN410 - Marketing
 MLOG400 - Port and Terminal Operations
 HIST300 - Seminar in U.S. History since 1945

Term 9

NSEA310 - Cargo Operations 2
 NSEA315 - Integrated Navigation Systems 2
 NSEA320 - Seamanship 2
 NSEA325 - Ship Structure and Stability 2
 NSEA330 - Navigation II

Term 10

NSEA335 - Navigation Law 2
 NSEA340 - Maritime Business
 NSEA345 - Maritime Communications at Sea
 HSEA300 - Humanities Sea Practical

Term 11

NAUT460 - Bridge Resource Management
 NAUT470 - Maritime Communications, Upper Level
 BUSN420 - Maritime Economics
 MLOG425 - Maritime Security Research Seminar
 MLOG430 - Chartering and Brokerage
 HIST400 - Seminar in National Security Policy and Strategy
 NASC400 - Naval Leadership & Ethics
 PE&A200 - Medical Care Provider

Term 12

NAUT400 - License Seminar
 ECME480 - Marine Engineering for Deck Officers
 BUSN430 - Admiralty and International Law of the Sea
 MLOG450 - Capstone Project Seminar
 NASC410 - Naval Science Senior Seminar
 Humanities Elective

Total In-Resident Credits: 151.50

Total Credits: 171.50

Office of the Registrar															
Class of 2030 C & Beyond					United States Merchant Marine Academy					Major: Maritime Logistics & Security C					
Term 1	C	L	CHr	CR	Term 2	C	L	CHr	CR	Term 3	C	L	CHr	CR	
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	NAUT120 Terrestrial Navigation 1	2	2	4.00	3.00	NAUT125 Terrestrial Navigation 2	3	0	3.00	3.00	
NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00	NAUT130 Introduction to Navigation Law	1	0	1.00	1.00	NAUT210 Integrated Navigation 1	3	2	5.00	4.00	
ECME101 Introduction to Marine Engineering	3	3	4.50	3.50	NAUT160 Ship Constructions and Stability	3	0	3.00	3.00	NAUT250 Dry Cargo Operations	3	0	3.00	3.00	
MATH101 Calculus 1	3	0	3.00	3.00	MATH130 Calculus 2 Deck	2	0	3.00	3.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	
CHEM100 General Chemistry	3	2	5.00	4.00	PHYS110 Physics 1	3	2	3.50	3.00	PHYS120 Physics 2	3	2	3.50	3.00	
LITR101 Composition & Literature	3	0	3.00	3.00	HIST100 History of Sea Power	3	0	3.00	3.00	NASC100 Introduction to Naval Science	2	0	2.00	2.00	
PE&A120 First Aid	0	2	1.00	0.50	PE&A110 Basic Swimming	0	2	2.00	1.00						
PE&A125 Self Defense Tactics	0	2	1.00	0.50	MLOG120 VPDS	0	1	1.00	0.00						
CMDT100 Social Responsibility				0.00											
	16	11	23.50	18.50		14	7	20.50	17.00		15	4	17.50	16.00	
Term 4	C	L	CHr	CR	Term 5	C	L	CHr	CR	Term 6	C	L	CHr	CR	
NAUT220 Liquid Cargo Operations	2	2	4.00	3.00	NAUT215 Integrated Navigation 2	3	2	5.00	4.00	NSEA210 Cargo Operations 1				1.00	
NAUT240 Meteorology	3	0	3.00	3.00	NAUT230 Navigation Law	2	0	2.00	2.00	NSEA215 Integrated Navigation Systems 1				1.00	
MATH200 Probability & Statistics Business	3	0	3.00	3.00	NAUT270 Introduction to Maritime Comm	2	1	3.00	2.00	NSEA220 Seamanship 1				1.00	
BUSN210 Principles of Economics	3	0	3.00	3.00	COMP105 Computer Programming	0	2	2.00	1.00	NSEA225 Ship Structure and Stability 1				1.00	
HIST200 Regional Studies	3	0	3.00	3.00	BUSN110 The Business of Transportation	3	0	3.00	3.00	NSEA230 Navigation I				1.00	
WTRF100 Safety of Life at Sea	1	2	3.00	2.00	LITR201 Literature	3	0	3.00	3.00	NSEA235 Navigation Law 1				1.00	
PE&A130 Aquatic Survival	0	2	2.00	1.00						ESEA245 Marine Engine for Deck				1.00	
	15	6	21.00	18.00		13	5	18.00	15.00		0	0	0.00	7.00	
Term 7	C	L	CHr	CR	Term 8	C	L	CHr	CR	Term 9	C	L	CHr	CR	
NAUT225 Celestial Navigation	3	2	5.00	4.00	NAUT310 Integrated Navigation 3	3	2	5.00	4.00	NSEA310 Cargo Operations 2				2.00	
NAUT330 The Maritime Regulatory Envir	2	0	2.00	2.00	BUSN300 Fundamentals of Business Law	3	0	3.00	3.00	NSEA315 Integrated Navigation Systems 2				1.00	
NAUT420 Advanced Firefighting	1	1	2.00	1.50	BUSN310 Accounting & Finance	3	0	3.00	3.00	NSEA320 Seamanship 2				1.50	
BUSN230 Principles of Management	3	0	3.00	3.00	BUSN410 Marketing	2	1	3.00	2.50	NSEA325 Ship Structure and Stability 2				1.50	
MLOG200 Integrated Logistics Managem	3	0	3.00	3.00	MLOG400 Port and Terminal Operations	3	0	3.00	3.00	NSEA330 Navigation II				2.00	
MLOG310 Vessel Security Officer/Compa	3	0	3.00	3.00	HIST300 Seminar in U.S. History since 19	2	0	2.00	2.00						
NASC200 Strategic Sealift	2	0	2.00	2.00											
	17	3	20.00	18.50		16	3	19.00	17.50		0	0	0.00	8.00	
Term 10	C	L	CHr	CR	Term 11	C	L	CHr	CR	Term 12	C	L	CHr	CR	
NSEA335 Navigation Law 2				2.00	NAUT460 Bridge Resource Management	1	2	3.00	2.00	NAUT400 License Seminar	0	3	3.00	0.00	
NSEA340 Maritime Business				1.00	NAUT470 Maritime Communications, Upp	2	1	3.00	2.00	ECME480 Marine Engineering for Deck C				2.50	
NSEA345 Maritime Communications at Sea				1.00	BUSN420 Maritime Economics	3	0	3.00	3.00	BUSN430 Admiralty and International Law	2	0	2.00	2.00	
HSEA300 Humanities Sea Practical					MLOG425 Maritime Security Research Sk	3	0	3.00	3.00	MLOG450 Capstone Project Seminar	3	0	3.00	3.00	
					MLOG430 Chartering and Brokerage	3	0	3.00	3.00	NASC410 Naval Science Senior Seminar	2	0	2.00	1.50	
					HIST400 Seminar in National Security Pol	2	0	2.00	2.00	Humanities Elective	3	0	3.00	3.00	
					NASC400 Naval Leadership & Ethics	2	0	2.00	2.00						
					PE&A200 Medical Care Provider	0	2	2.00	1.00						
	0	0	0.00	5.00		16	5	21.00	18.00	Total In-Resident Credits		12	4	16.50	12.00
										Total Credits					151.50

Department of Marine Engineering

This department supports the Academy mission by providing the education and training necessary to prepare young men and women to become credentialed engineering officers in the merchant marine, as well as competent engineers who have the ability serve in various shore-side sectors of the marine engineering industry. Midshipmen enrolled in any of the Academy's engineering programs graduate with a Merchant Mariner's Credential as a Third Assistant Engineer, a Bachelor of Science degree and a commission in one of the U.S. Armed Services.

Three engineering programs are offered at the Academy: Marine Engineering, which focuses on shipboard engineering operations; Marine Engineering Systems, which focuses on the design of shipboard systems and machinery; and Marine Engineering and Shipyard Management, which focuses on the management of shipyards and the production and repair of marine vehicles. All three programs include a combination of fundamental engineering science courses and courses that cover the theory and practice of marine engineering. In addition, to nine semesters in residence at the Academy, all Midshipmen spend a portion of the second and third years at sea on merchant vessels. They also complete a shore-side internship. The Academy's engineering programs are approved by the U.S. Coast Guard and satisfy the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), as amended. In addition, the Marine Engineering Systems program and the Marine Engineering and Shipyard Management program are both accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

The Engineering Department faculty offices are in Fulton Hall, with classrooms and laboratories in both Fulton and Gibbs Halls. There are laboratories for marine engineering (include diesel engines, steam and gas turbines, pumps, valves, and auxiliary equipment), refrigeration, thermodynamics and heat transfer, fluid mechanics, materials testing, metallurgy, machine shop, welding and pipe fitting, electrical machinery, electric circuits, electronics, controls, engine-room simulation and graphics. The use of the Academy's extensive laboratories is integrated throughout the academic programs to give Midshipmen numerous opportunities to experience the connection between theory and practice, and to enable them to receive hands-on training in the operation and maintenance of marine machinery.

In addition to required courses, various elective courses are offered in relevant engineering topics. Some of these courses can be grouped to enable Midshipmen to concentrate on a particular area of interest. The department also administers the Academy's Alternative Power Program through which Midshipmen may complete independent studies related to contemporary issues, such as energy conservation, environmental protection, and the use of alternative fuels.

The Department of Marine Engineering provides Midshipmen with the education and training to design, build, operate, maintain and repair the engineering systems and machinery used on modern marine vessels and to prepare them for positions of increasing responsibility in the maritime and intermodal transportation industries.

The Engineering Majors also provide Midshipmen with a sound, broad-based engineering education while simultaneously preparing them to serve as a third assistant engineer of steam, motor or gas turbine vessels. The Academy offers three engineering majors: Marine Engineering; Marine Engineering Systems; and Marine Engineering and Shipyard Management.

The synergistic combination of classical engineering studies and operations-oriented training and experience offers graduates an unbeatable amalgamation of skills that prepare them for a broad range of professional occupations. The special nature of the Academy makes the engineering graduates well suited for professions in the maritime industry as well as in related fields such as power generation and intermodal transportation.

The Program Educational Objectives of three Engineering majors have three common objectives and one particular objective unique to the major. The three common objectives are as follows:

1. To prepare the graduates serve as licensed engineering officers in the U.S. Merchant Marine with the ability to advance to Chief Engineer.
2. To prepare the graduates to serve in a wide variety of professional positions in the maritime industry.
3. To prepare the graduates to pursue graduate study in engineering and/or become licensed as a Professional Engineer if they so choose.
4. The particular objective for each program is described under the following program headings. Department of Engineering Faculty

Department of Engineering Faculty

Note: For all faculty listings in this section of the catalog, the year when a faculty member joined the Academy staff follows each name. Other information includes the individual's faculty rank, degrees earned, where obtained, professional licenses held, and military affiliation. In a department that includes more than one discipline, the faculty member's area of specialization is indicated. Superscripts used in this listing are:

1. faculty member has received the Academy's Vice Admiral Gordon McLintock Award for Exemplary Leadership
2. faculty member has received the Academy's Sue Alice McNulty Award for Distinguished Teaching.
3. faculty member has received the Captain C.A. Prosser Award for Student Service.
4. faculty member has held command at sea of an unlimited tonnage vessel.

Department Head

CAPT Anthony D. Nigro, USMS (2012)²

B.E. SUNY Maritime College
M.S., U.S. Merchant Marine Academy
MMC: Chief Engineer of Steam, Motor or Gas Turbine Vessels of Any Horsepower

Assistant Department Head

Erica L. Hansen (2015)
B.S., Webb Institute of Naval Architecture M.S., Long Island University
M.S.E.M. Old Dominion University

Professors

CAPT William Caliendo, USMS (2005)

B.E., SUNY Maritime College
M.E., Stevens Institute of Technology Ph.D., Stevens Institute of Technology
MMC: Third Assistant Engineer of Steam, Motor or Gas Turbine Vessels of Any Horsepower
Registered Professional Engineer - State of New York

Gabriel-Dumitru Colef (1991)²

B.E., CCNY
M.E.E.E., CCNY Ph.D., CCNY
Registered Professional Engineer - State of New York

Yongjian Gu (2014)

B.S., Power Engineering, Huazhong University of Science and Technology
M.S., Power Engineering, University of Shanghai for Science and Technology M.S., (M.E.), SUNY Stony Brook
Ph.D., (M.E.), SUNY Stony Brook
Registered Professional Engineer - State of New York
Professional Database Administrator - Oracle

CAPT David J. Palmer, USMS (1995)²

B.S., U.S. Merchant Marine Academy
M.S., (M.E.), Polytechnic Institute of New York University Ph.D., (M.E.), Polytechnic Institute of New York University
MMC: Third Assistant Engineer of Steam, Motor or Gas Turbine Vessels of Any Horsepower Nuclear Engineering Officer of the Watch, Engineering Duty Officer, Navy Nuclear Program
Military: CDR, USNR

Paul Santamauro (2001)²

B.S., U.S. Merchant Marine Academy J.D., New England School of Law
MMC: First Engineer Motor and Gas Turbine Vessels of Any Horsepower; Third Mate, Steam and Motor Vessels of Any Gross Tons Upon Oceans

Associate Professors

CDR Emily Gardner (2018)

B.S., U.S. Merchant Marine Academy MSTM., SUNY Farmingdale
MMC: Chief Engineer Limited Oceans, First Assistant Engineer Motor of Any Horsepower, Third Assistant Engineer Steam and Gas Turbine of Any Horsepower.

James Garofalo, PhD (2019)

B.S. Columbia University
B.S. Adelphi University
M.S. Rensselaer Polytechnic Institute Ph.D. Rensselaer Polytechnic Institute
Advanced Manufacturing Certificate, Rensselaer Polytechnic Institute

CAPT Peter Kahl, USMS (2010)²

B.S., U.S. Merchant Marine Academy MBA, Hofstra University
MMC: Chief Engineer of Motor or Gas Turbine Vessels of Any Horsepower; Second Assistant Engineer of Steam Vessels of Any Horsepower

CDR Lance Klein, USMS (2012)

B.E., SUNY Maritime College M.S., SUNY Maritime College M.S., M.S., USMMA
MMC: Chief Engineer of Steam, Motor, or Gas Turbine Vessels of Any Horsepower

Steven L. Pike (2021)

B.E., SUNY Maritime College
MMC: Chief Engineer of Steam, Motor and Gas Turbine Vessels of Any Horsepower

CDR David Pulis, USMS (2010)

B.S. U. S. Merchant Marine Academy M.S., U.S. Merchant Marine Academy
MMC: Second Assistant Engineer of Steam Third Assistant of Motor Vessels of Any Horsepower Military: CDR, USNR
Registered Professional Engineer - State of New York

Lubomir A. Ribarov, PhD (2021)

B.S. The University of Maine
M.S. The University of Maine
M.B.A., Rensselaer Polytechnic Institute Ph.D. Vanderbilt University

Michael R. Roenbeck (2019)

B.S., Olin College of Engineering
Ph.D., Northwestern University

Atil Talay (2018)

B.S., M/E. Kocaeli University
B.S., Marine Eng. Istanbul Technical University
M.S., Marine Eng. Istanbul Technical University
Ph.D., Marine Trans and Management Eng. Istanbul Technical University

Assistant Professors

Mark L. Bulaciack (2022)

B.S., U.S. Merchant Marine Academy
M.S., U.S. Merchant Marine Academy
MMC: Chief Engineer Unlimited Horsepower (*Motor, Steam, Gas Turbine*)

Salvatore Carillo (2016)

B.S. U. S. Merchant Marine Academy
M.S., SUNY Stony Brook
Document of Continuity: First Assistant Engineer of Steam or Motor Vessels of Any Horsepower, Third Assistant Engineer of Gas Turbine Vessels of Any Horsepower
Master Electrician License for Suffolk County

John Michael Colef (2020)

B.S., NYU College of Arts and Science
 M.S., NYU Tandon School of Engineering
 Ph.D. EE, NYU Tandon School of Engineering

John Lovell (2025)

B.E., SUNY Maritime College
 MMC: Second Assistant Engineer of Steam, Motor and Gas Turbine Vessels of Any Horsepower

LCDR Nicholas Palumbo, USMS (2011)

B.S., U.S. Merchant Marine Academy
 MMC: Third Assistant Engineer of Steam, Motor or Gas Turbine Vessels of Any Horsepower Military: LCDR, USNR

Michael Rowles (2020)

B.E., SUNY Maritime College
 M.S., Massachusetts Institute of Technology
 Engineer's Degree: Massachusetts Institute of Technology Military: LCDR, USN(ret)

Andrew Turtora, PE (2020)

B.E., SUNY Maritime College M.S., Hofstra University
 MMC: Chief Engineer of Steam and Motor Vessels of Any Horsepower Military: LCDR, USNR (Inactive)
 Registered Professional Engineer - State of Connecticut

Engineering Laboratories Supervisory Engineer Technicians**CWO2 Thomas Bussi, USMS (2018)**

USN retired Chief Petty Officer Enlisted Surface Warfare Specialist

Anthony Garcia (2022)**Andres Borges (2023)****Philip Hathaway (2024)****Professors Emeriti****Boris Butman**

(Engineering: 1987-2011)
 M.S. Shipbuilding College, Leningrad
 Ph.D. (ME), Maritime Technical University, Leningrad

Jose Femenia

(Engineering: 1995-2011)

B.E. (M.E.), SUNY Maritime College M.S.M.E., CUNY City College MMC: Third Assistant Engineer of Steam or Motor Vessels of Any Horsepower.
 Registered: Professional Engineer State of New York

Ray Gardner

(Engineering:)

CDR James A. Harbach, USMS (Ret)

(Engineering: 1978-2007)
 B.S., U.S. Merchant Marine Academy M.E., Cornell Engineer
 Engineer, Polytechnic Institute of New York University
 MMC: First Assistant Engineer of Steam Vessels of Any Horsepower; Third Assistant Engineer of Motor Vessels of Any Horsepower.
 Registered Professional Engineer - State of New Jersey

Walter M. Maclean

(Engineering: 1987-1995)
 Diploma, U.S. Merchant Marine Academy B.S.M.E., M.E., D.E., California Berkeley) MMC: Chief Engineer of Steam Vessels, of Any Horsepower
 Registered Professional Engineer - State of California

CAPT Robert T. Madden, USMS (Ret)²

(Engineering: 1970-2001)
 B.S., U.S. Merchant Marine Academy M.S., Stevens Institute of Technology
 MMC: Chief Engineer of Steam or Motor Vessels of Any Horsepower Military: CDR, USNR (Ret)

Mukund Patel

(Engineering:)

CAPT William J. Sembler, USMS (Ret)

(Engineering: 1991-2014)
 B.S., U.S. Merchant Marine Academy
 M.E., Steven Institute of Technology Engineer, Steven Institute of Technology
 Ph.D., Polytechnic Institute of NYU
 MMC: Chief Engineer of Steam, Motor or Gas Turbine Vessels of Any Horsepower; Third Mate of Steam and Motor Vessels of Any Gross Tons Upon Oceans.
 Registered Professional Engineer - State of New Jersey and New York

Marine Engineering Majors

Marine Engineering and Shipyard Management, BS

Marine Engineering and Shipyard Management Program

The Marine Engineering and Shipyard Management program prepares Midshipmen as officers in the U.S. Merchant Marine; provides an engineering education that prepares them for a wide variety of professional positions in ship construction and repair, operations, marketing, maintenance and survey; and imparts to them a solid engineering education that permits them to pursue graduate study and/or become licensed as a Professional Engineer, should they so choose. This curriculum puts particular focus on the management of ship construction and repair.

An important element of the Marine Engineering and Shipyard management program is the design experience interwoven throughout a student's four years, culminating in the capstone design project in senior year. The student participates as part of a team tasked with developing a ship construction or ship repair project. The project is spread over two terms and finishes with a presentation of the final design to a panel of faculty and invited industry professionals. The Marine Engineering and Shipyard Management program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

To enroll in this program a Midshipman must have a CQPA of at least 2.67 at the end of the 4th class (plebe) year. The sample curriculum for both A, B and C splits follow

Marine Engineering and Shipyard Management, A-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
ECME101 - Introduction to Marine Engineering I
MATH101 - Calculus 1
PHYS110 - Physics 1
HIST100 - History of Sea Power
NASC100 - Introduction to Naval Science
PE&A110 - Basic Swimming
CMDT100 - Social Responsibility **Credits: 0**

Term 2

ECEE100 - Introduction to Electrical Engineering
ECMT100 - Engineering Graphics
ECMT111 - Engineering Shop I
MATH140 - Calculus 2 Engine
PHYS120 - Physics 2
LITR101 - Composition and Literature
PE&A120 - First Aid
PE&A125 - Self Defense Tactics

Term 3

ECES100 - Statics
ECME105 - Introduction to Marine Engineering II
ECMT112 - Engineering Shop II
NAUT110 - Basic Firefighting and Safety
MATH215 - Probability and Statistics for Engineers
CHEM100 - General Chemistry
BUSN101 - Principles of Leadership
PE&A130 - Aquatic Survival
MLOG120 - Vessel Personnel with Designated Security Duties

Term 4

ECES201 - Thermodynamics
ECES211 - Dynamics
MATH240 - Introduction to Differential Equations and Linear Algebra
MATH305 - Calculus 3
HIST200 - Regional Studies
NASC200 - Strategic Sealift
WTRF100 - Safety of Life At Sea

Term 5

ESEA210 - Machine Shop at Sea
ESEA230 - Main Propulsion 1 at Sea
ESEA240 - Shipboard Systems 1 at Sea
NSEA245 - Deck Operations

Term 6

ECEE200 - Electric Circuits
ECES220 - Introduction to Materials Engineering
ECES221 - Introduction to Materials Engineering Laboratory
ECES230 - Fluid Mechanics
MATH310 - Operations Research 1
CHEM210 - Selected Topics in Chemistry for Marine Engineers

COMP105 - Computer Programming
LITR201 - Literature

Term 7

ECDL400 - Basic Tanker Operations-Dangerous Liquids
ECEE300 - Electric Machines
ECES300 - Strength of Materials
ECES310 - Heat Transfer
MATH330 - Operations Research 2
HIST300 - Seminar in U.S. History since 1945
WRIT110 - Technical & Professional Communications

Term 8

ESEA310 - Maintenance Management
ESEA320 - Naval Arch at Sea
ESEA330 - Marine Propulsion 2 at Sea
ESEA335 - Refrigeration at Sea
ESEA340 - Shipboard Systems 2 at Sea
ESEA345 - Electrical Engineering at Sea

Term 9

ESEA350 - Marine Propulsion 3 at Sea
NSEA340 - Maritime Business
HSEA300 - Humanities Sea Practical
ESEA400 - Shipyard Internship

Term 10

ECEE400 - Electronics
ECME401 - Marine Engineering Management
ECME440 - Engine Room Resource Management
ECME450 - Gas Turbines and Marine Auxiliary Equipment
ECME470 - Marine Plant Automation and Controls
ECNA401 - Naval Architecture for Marine Engineers
EMEM405 - Engineering Project Management
EREM300 - Engineering Economics

Term 11

ECME400 - Marine Steam Plants and Components
ECME410 - Marine Steam Plant Simulation
ECME420 - Internal Combustion Engines
ECME431 - Marine Refrigeration
ECES402 - Machine Elements
EMEM415 - Engineering Project Management 2
NASC400 - Naval Leadership & Ethics

Term 12

ECME460 - Marine Engineering License Seminar
EMEM425 - Engineering Project Management 3
NAUT420 - Advanced firefighting
BUSN210 - Principles of Economics
HIST400 - Seminar in National Security Policy and Strategy
NASC410 - Naval Science Senior Seminar
PE&A200 - Medical Care Provider

Total In-Resident Credits: 159.0
Total Credits: 180.0

Class of 2030 A & Beyond				Office of the Registrar United States Merchant Marine Academy				Major: Marine Engineering Shipyard Management A						
	C	L	Chr	CR	Term 2	C	L	Chr	CR	Term 3	C	L	Chr	CR
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	ECCE100 Introduction to Electrical Engin	3	2	4.00	3.50	ECES100 Statics	3	0	3.00	3.00
ECME101 Introduction to Marine Enginee	3	3	4.50	3.50	ECMT100 Engineering Graphics	0	2	2.00	1.00	ECME105 Introduction to Marine Engine	3	2	3.00	3.50
MATH101 Calculus 1	3	0	3.00	3.00	ECMT111 Engineering Shop I	0	3	3.00	1.00	ECMT112 Engineering Shop II	1	0	3.00	1.00
PHYS110 Physics 1	3	2	4.50	3.00	MATH140 Calculus 2 Engine	3	0	3.00	3.00	NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00
HIST100 History of Sea Power	3	0	3.00	3.00	PHYS120 Physics 2	3	2	4.50	3.00	MATH215 Probability & Statistics Engine	3	0	3.00	3.00
NASC100 Introduction to Naval Science	2	0	2.00	2.00	LITR101 Composition & Literature	3	0	3.00	3.00	CHEM100 General Chemistry	3	2	5.00	4.00
PE&A110 Basic Swimming	0	2	2.00	1.00	PE&A120 First Aid	0	2	1.00	0.50	BUSN101 Principles of Leadership	1	0	1.00	1.00
CMDT100 Social Responsibility				0.00	PE&A125 Self Defense Tactics	0	2	1.00	0.50	PE&A130 Aquatic Survival	0	2	2.00	1.00
	16	9	23.00	18.50		12	13	21.50	15.50	MLOG120 VPDS	0	1	1.00	0.00
Term 4	C	L	Chr	CR	Term 5	C	L	Chr	CR	Term 6	C	L	Chr	CR
ECES201 Thermodynamics	3	0	3.00	3.00	ESEA210 Machine Shop at Sea				1.00	ECCE200 Electric Circuits	2	2	3.00	2.50
ECES211 Dynamics	2	1	2.00	2.50	ESEA230 Marine Propulsion 1 at Sea				2.00	ECES220 Introduction to Materials Engi	2	0	2.00	2.00
MATH240 Introduction to Differential Equ	3	0	3.00	3.00	ESEA240 Shipboard Systems 1 at Sea				2.00	ECES221 Introduction to Materials Engi	0	2	1.00	0.50
MATH305 Calculus 3	3	0	3.00	3.00	NSEA245 Deck Operations				1.00	ECES230 Fluid Mechanics	3	2	4.00	3.50
HIST200 Regional Studies	3	0	3.00	3.00						MATH310 Operations Research 1	3	0	3.00	3.00
NASC200 Strategic Sealift	2	0	2.00	2.00						CHEM210 Selected Topics in Chemistry	2	1	2.00	2.00
WTRF100 Safety of Life at Sea	1	2	3.00	2.00						COMP105 Computer Programming	0	2	2.00	1.00
	17	3	19.00	18.50		0	0	0.00	6.00	LITR201 Literature	3	0	3.00	3.00
Term 7	C	L	Chr	CR	Term 8	C	L	Chr	CR	Term 9	C	L	Chr	CR
ECDL400 Basic Tanker Operations-Dang	2	0	2.00	2.00	ESEA310 Maintenance Management				1.00	ESEA350 Marine Propulsion 3 at Sea				2.50
ECES300 Electric Machines	3	2	4.00	3.50	ESEA320 Naval Arch at Sea				1.00	NSEA340 Maritime Business				1.00
ECES300 Strength of Materials	3	0	3.00	3.00	ESEA330 Marine Propulsion 2 at Sea				2.50	NSEA300 Humanities Sea Practical				1.00
ECES310 Heat Transfer	3	2	4.00	3.50	ESEA335 Refrigeration at Sea				1.00	ESEA400 Shipyard Internship				2.00
MATH330 Operations Research 2	3	0	3.00	3.00	ESEA340 Shipboard Systems 2 at Sea				2.00					
HIST300 Seminar in U.S. History since 16	2	0	2.00	2.00	ESEA345 Electrical Engineering at Sea				1.00					
WRIT110 Technical & Professional Com	2	0	2	2.00										
	18	4	20.00	19.00		0	0	0.00	8.50		0	0	0.00	6.50
Term 10	C	L	Chr	CR	Term 11	C	L	Chr	CR	Term 12	C	L	Chr	CR
ECCE400 Electronics	2	1	3.00	2.50	ECME400 Marine Steam Plants and Com	3	3	4.50	3.50	ECME400 Marine Engineering License I	1	2	3.00	0.50
ECME401 Marine Engineering Managem	1	2	3.00	2.00	ECME410 Marine Steam Plant Simulation	0	3	1.50	0.50	EMEM425 Engineering Project Managem	1	2	2.00	3.50
ECME440 Engine Room Resource Mana	0	4	4.00	1.00	ECME420 Internal Combustion Engines	3	3	4.50	3.50	NAUT420 Advanced Firefighting	1	1	2.00	1.50
ECME450 Gas Turbines and Marine Aux	3	3	4.50	3.50	ECME431 Marine Refrigeration	2	3	3.50	2.50	BUSN210 Principles of Economics	3	0	3.00	3.00
ECME470 Marine Plant Automation and C	3	3	3.50	2.50	ECES402 Machine Elements	2	1	2.00	2.50	HIST400 Seminar in National Security P	2	0	2.00	2.00
ECNA401 Naval Architecture for Marine E	0	0	2.50	2.50	EMEM415 Engineering Project Managem	3	1	3.50	3.50	NASCA100 Naval Science Senior Semina	2	0	2.00	1.50
EMEM405 Engineering Project Managem	3	1	3.50	3.50	NASC400 Naval Leadership & Ethics	2	0	2.00	2.00	PE&A200 Medical Care Provider	0	2	2.00	1.00
EREM300 Engineering Economics	3	0	3.00	3.00										
	18	14	27.00	29.50		15	14	21.50	18.00		10	7	16.00	13.00
										Total In-Resident Credits				159.00
										Total Credits				180.00

Marine Engineering and Shipyard Management, B-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
 ECME101 - Introduction to Marine Engineering I
 MATH101 - Calculus 1
 PHYS110 - Physics 1
 HIST100 - History of Sea Power
 NASC100 - Introduction to Naval Science
 PE&A110 - Basic Swimming
 CMDT100 - Social Responsibility

Term 2

ECME105 - Introduction to Marine Engineering II
 ECMT111 - Engineering Shop I
 NAUT110 - Basic Firefighting and Safety
 BUSN101 - Principles of Leadership
 MATH140 - Calculus 2 Engine
 CHEM100 - General Chemistry
 LITR101 - Composition and Literature
 PE&A120 - First Aid
 PE&A125 - Self Defense Tactics
 MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

ECCE100 - Introduction to Electrical Engineering
 ECES100 - Statics
 ECMT100 - Engineering Graphics
 ECMT112 - Engineering Shop II
 MATH215 - Probability and Statistics for Engineers
 PHYS120 - Physics 2
 PE&A130 - Aquatic Survival
 WTRF100 - Safety of Life At Sea

Term 4

ESEA210 - Machine Shop at Sea
 ESEA230 - Main Propulsion 1 at Sea
 ESEA240 - Shipboard Systems 1 at Sea
 NSEA245 - Deck Operations

Term 5

ECDL400 - Basic Tanker Operations-Dangerous Liquids
 ECES201 - Thermodynamics
 ECES211 - Dynamics
 MATH240 - Introduction to Differential Equations and Linear Algebra
 MATH305 - Calculus 3
 COMP105 - Computer Programming
 HIST200 - Regional Studies

WRIT110 - Technical & Professional Communication

Term 6

ECCE200 - Electric Circuits
 ECES220 - Introduction to Materials Engineering
 ECES221 - Introduction to Materials Engineering Laboratory
 ECES230 - Fluid Mechanics
 MATH310 - Operations Research 1
 CHEM210 - Selected Topics in Chemistry for Marine Engineers
 LITR201 - Literature
 NASC200 - Strategic Sealift

Term 7

ESEA310 - Maintenance Management
 ESEA320 - Naval Arch at Sea
 ESEA330 - Marine Propulsion 2 at Sea
 ESEA335 - Refrigeration at Sea
 ESEA340 - Shipboard Systems 2 at Sea
 ESEA345 - Electrical Engineering at Sea

Term 8

ESEA350 - Marine Propulsion 3 at Sea
 NSEA340 - Maritime Business
 HSEA300 - Humanities Sea Practical
 ESEA400 - Shipyard Internship

Term 9

ECCE300 - Electric Machines
 ECES300 - Strength of Materials
 ECES310 - Heat Transfer
 EREM300 - Engineering Economics
 MATH330 - Operations Research 2
 HIST300 - Seminar in U.S. History since 1945

Term 10

ECCE400 - Electronics
 ECME400 - Marine Steam Plants and Components
 ECME410 - Marine Steam Plant Simulation
 ECME420 - Internal Combustion Engines
 ECME431 - Marine Refrigeration
 ECES402 - Machine Elements
 EMEM405 - Engineering Project Management 1

Term 11

ECME401 - Marine Engineering Management
 ECME440 - Engine Room Resource Management

Term 12
ECME460 - Marine Engineering License Seminar
EMEM425 - Engineering Project Management 3
NAUT420 - Advanced firefighting
BUSN210 - Principles of Economics
HIST400 - Seminar in National Security Policy and Strategy
NASC410 - Naval Science Senior Seminar
PE&A200 - Medical Care Provider

Office of the Registrar United States Merchant Marine Academy														
Class of 2030 & Beyond					Major: Marine Engineering Shipyard Management B									
Term 1	C	L	CHR	CR	Term 2	C	L	CHR	CR	Term 3	C	L	CHR	CR
MATH101 Introduction to Nautical Science	2	2	4.00	3.00	ECME105 Introduction to Marine Engineering	3	2	4.00	3.50	ECES100 Introduction to Electrical Engi	3	2	4.00	3.50
ECME101 Introduction to Marine Engines	3	3	4.50	3.50	ECMT111 Engineering Shop I	0	3	3.00	1.00	ECES100 Statics	3	0	3.00	3.00
MATH101 Calculus 1	3	0	3.00	3.00	NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00	ECME100 Engineering Graphics	0	2	2.00	1.00
PHYS110 Physics 1	3	2	4.50	3.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	ECMT112 Engineering Shop II	0	3	3.00	1.00
HIST100 History of Sea Power	3	0	3.00	3.00	MATH110 Calculus 2 Engine	2	0	3.00	3.00	MATN215 Probability & Statistics Engin	0	2	2.00	3.00
NASC100 Introduction to Naval Science	2	0	2.00	2.00	CMEM100 General Chemistry	3	2	5.00	4.00	PHYS210 Physics 2	3	2	4.50	3.00
PSEA110 Basic Swimming	0	2	2.00	1.00	LITR101 Composition & Literature	3	0	3.00	3.00	WTRF100 Aquatic Survival	0	2	2.00	1.00
CMED100 Social Responsibility	0	0	0.00	0.00	PEBA120 First Aid	0	2	1.00	0.50	WTRP100 Safety of Life at Sea	1	2	3.00	2.00
					PEBA125 Self Defense Tactics	0	1	1.00	0.50					
					MLOG120 VPDSO	0	1	1.00	0.00					
	16	9	23.00	18.50		14	12	24.00	18.50		13	13	24.50	17.50
Term 4	C	L	CHR	CR	Term 5	C	L	CHR	CR	Term 6	C	L	CHR	CR
ESEA210 Machine Shop at Sea	1	0	0.00	1.00	ECCL400 Basic Tanker Operations-Danq	2	0	2.00	2.00	ECCE200 Electrical Circuits	2	2	3.00	2.50
ESEA230 Marine Propulsion 1 at Sea	2	0	0.00	2.00	ECES201 Thermodynamics	3	3	3.00	3.00	ECES200 Introduction to Materials Engi	3	2	3.00	3.00
ESEA240 Shipboard Systems 1 at Sea	2	0	0.00	2.00	ECES211 Dynamics	2	1	2.00	2.50	ECES221 Introduction to Materials Engi	0	2	1.00	0.50
NSEA245 Deck Operations	1	0	0.00	1.00	MATH240 Systemic to Differential Equi	3	0	3.00	3.00	ECES230 Fluid Mechanics	3	2	4.00	3.50
					MATH305 Calculus 3	3	0	3.00	3.00	MATH310 Operations Research 1	3	0	3.00	3.00
					COMP105 Computer Programming	2	0	2.00	1.00	CHEM210 Selected Topics in Chemistry	2	2	2.00	2.00
					HIST200 Regional Studies	3	0	3.00	3.00	LITR201 Literature	3	0	3.00	3.00
					WRIT110 Technical & Professional Comm	2	0	2	2.00	NASC200 Strategic Seafit	2	0	2.00	2.00
	0	0	0.00	6.00		18	3	20.00	18.50		17	7	20.00	18.50
Term 7	C	L	CHR	CR	Term 8	C	L	CHR	CR	Term 9	C	L	CHR	CR
ESEA310 Maintenance Management	1	0	0.00	1.00	ESEA350 Marine Propulsion 3 at Sea	2	0	0.00	2.50	ECCE300 Electrical Machines	3	2	4.00	3.50
ESEA320 Naval Arch at Sea	1	0	0.00	1.00	ESEA360 Maritime Business	1	0	0.00	1.00	ECCE300 Strength of Materials	3	2	4.00	3.50
ESEA330 Marine Propulsion 2 at Sea	2	0	0.00	2.50	ESEA390 Humanities Sea Practical	1	0	0.00	1.00	ECES310 Heat Transfer	3	0	3.00	3.00
ESEA335 Refrigeration at Sea	1	0	0.00	1.00	ESEA400 Shipyard Internship	2	0	0.00	2.00	EREM300 Engineering Economics	3	0	3.00	3.00
ESEA340 Shipboard Systems 2 at Sea	2	0	0.00	2.00		3	0	0.00	3.00	HIST430 Operations Research 3	3	0	3.00	3.00
ESEA345 Electrical Engineering at Sea	1	0	0.00	1.00						HIST300 Seminar in U.S. History since 1	2	0	2.00	2.00
	0	0	0.00	8.50		0	0	0.00	6.50		17	4	19.00	18.00
Term 10	C	L	CHR	CR	Term 11	C	L	CHR	CR	Term 12	C	L	CHR	CR
ECCE400 Electronics	2	1	3.00	2.50	ECCE401 Marine Engineering Manage	3	2	3.00	2.50	ECCE460 Marine Engineering License 1	1	2	3.00	0.50
ECME400 Marine Steam Plants and Com	3	3	4.50	3.50	ECME440 Engine Room Resource Manag	4	4	4.00	1.00	EMEM245 Engineering Project Managem	1	2	2.00	3.50
ECME410 Marine Steam Plant Simulation	0	3	1.50	0.50										

Term1

COMP105 - Computer Programming
HIST200 - Regional Studies
WRIT110 - Technical & Professional
Communication
WTRF100 - Safety of Life at Sea

Term 5

ECEE200 - Electric Circuits
 ECES220 - Introduction to Materials Engineering
 ECES221 - Introduction to Materials Engineering
 Laboratory
 ECES230 - Fluid Mechanics
 MATH310 - Operations Research 1
 CHEM210 - Selected Topics in Chemistry for
 Engineers
 LITR201 - Literature
 NASC200 - Strategic Sealift

Term 6

ESEA210 - Machine Shop at Sea
ESEA230 - Marine Propulsion 1 at Sea
ESEA240 - Shipboard Systems 1 at Sea
NSEA245 - Deck Operations

Term 7

EC330 - Electric Machines
EC330 - Strength of Materials
EC330 - Heat Transfer
EC330 - Engineering Project Management 1
EC330 - Operations Research 2

ECDL400 - Basic Tanker Operations-Dangerous Liquids
ECEE400 - Electronics
ECEM401 - Marine Engineering Management
ECME400 - Marine Steam Plants and Components

ECME410 - Marine Steam Plant Simulation
 ECME450 - Gas Turbines and Marine Auxiliary Equipment
 EREM300 - Engineering Economics
 HIST300 - Seminar in U.S. History since 1945

Term 9

ESEA310 - Maintenance Management
 ESEA320 - Naval Arch at Sea
 ESEA330 - Marine Propulsion 2 at Sea
 ESEA335 - Refrigeration at Sea
 ESEA340 - Shipboard Systems 2 at Sea
 ESEA345 - Electrical Engineering at Sea

Term 10

ESEA350 - Marine Propulsion 3 at Sea
 NSEA340 - Maritime Business
 HSEA300 - Humanities Sea Practical
 ESEA400 - Shipyard Internship

Term 11

ECES402 - Machine Elements
 ECME420 - Internal Combustion Engines
 ECME431 - Marine Refrigeration
 ECME440 - Engine Room Resource Management
 ECME470 - Marine Plant Automation and Controls
 ECNA401 - Naval Architecture for Marine Engineers
 EMEM415 - Engineering Project Management 2
 NASC400 - Naval Leadership & Ethics

Term 12

ECME460 - Marine Engineering License Seminar
 EMEM425 - Engineering Project Management 3
 NAUT420 - Advanced Firefighting
 BUSN210 - Principles of Economics
 HIST400 - Seminar in National Security Policy and Strategy
 NASC410 - Naval Science Senior Seminar
 PE&A200 - Medical Care Provider

Total In-Resident Credits: 159.0

Total Credits: 180.0

Office of the Registrar															
United States Merchant Marine Academy								Major: Marine Engineering Shipyard Management C							
Class of 2030 C & Beyond															
Term 1				Term 2				Term 3				Term 4			
C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	ECET100 Introduction to Electrical Engin	3	2	4.00	3.50	ECES100 Statics	3	0	3.00	3.00	
ECME101 Introduction to Marine Engineer	3	3	4.50	3.50	ECMT100 Engineering Graphics	0	2	2.00	1.00	ECME105 Introduction to Marine Engine	4	0	3.00	3.00	
MATH101 Calculus 1	3	0	3.00	3.00	ECMT111 Engineering Shop I	0	3	3.00	1.00	ECMT112 Engineering Shop II	1	0	3.00	1.00	
PHYS110 Physics 1	3	2	4.50	3.00	NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	
HIST100 History of Sea Power	3	0	3.00	3.00	MATH140 Calculus 2 Engine	2	0	3.00	3.00	MATH215 Probability & Statistics Engine	3	0	3.00	3.00	
PE&A110 Basic Swimming	0	2	2.00	1.00	CHEM100 General Chemistry	3	2	5.00	4.00	PHYS120 Physics 2	3	2	4.50	3.00	
NASC100 Introduction to Naval Science	2	0	2.00	2.00	UTR101 Composition & Literature	3	0	3.00	3.00	PE&A130 Aquatic Survival	0	2	2.00	1.00	
CMDD100 Social Responsibility			0.00		PE&A120 First Aid	0	2	1.00	0.50						
					PE&A125 Self Defense Tactics	0	2	1.00	0.50						
					WLOG120 VPDSD	0	1	1.00	0.00						
	16	9	23.00	18.50		13	14	25.00	18.50		14	4	19.50	15.50	
Term 5				Term 6				Term 7				Term 8			
C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR
ECES201 Thermodynamics	3	0	3.00	3.00	ECET200 Electric Circuits	2	2	3.00	2.50	ESEA210 Machine Shop at Sea					1.00
ECES211 Dynamics	2	1	2.00	2.50	ECES220 Introduction to Materials Engin	2	0	2.00	2.00	ESEA230 Marine Propulsion 1 at Sea					2.00
MATH240 Introduction to Differential Equa	3	0	3.00	3.00	ECES221 Introduction to Materials Engin	0	2	1.00	0.50	ESEA240 Shipboard Systems 1 at Sea					2.00
MATH305 Calculus 3	3	0	3.00	3.00	ECES230 Fluid Mechanics	3	2	4.00	3.50	NSEA245 Deck Operations					1.00
COMP105 Computer Programming	0	2	2.00	1.00	MATH310 Operations Research 1	3	0	3.00	3.00						
HIST200 Regional Studies	3	0	3.00	3.00	CHEM210 Selected Topics in Chemistry I	2	1	2.00	2.00						
WRIT110 Technical & Professional Comm	2	0	2	2.00	UTR201 Literature	3	0	3.00	3.00						
WTRF100 Safety of Life at Sea	1	2	3.00	2.00	NASC200 Strategic Sealift	2	0	2.00	2.00						
	17	5	21.00	18.50		17	7	20.00	18.50		0	0	0.00	6.00	
Term 9				Term 10				Term 11				Term 12			
C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR
ECET300 Electric Machines	3	2	4.00	3.50	ECDL400 Basic Tanker Operations-Danz	2	0	2.00	2.00	ESEA310 Maintenance Management					1.00
ECES300 Strength of Materials	3	2	4.00	3.50	ECES400 Electronics	2	1	3.00	2.50	ESEA320 Naval Arch at Sea					1.00
ECES310 Heat Transfer	3	0	3.00	3.00	ECMA401 Marine Engineering Managem	1	2	3.00	2.00	ESEA330 Marine Propulsion 2 at Sea					2.50
EMEM 405 Engineering Project Managem	3	1	3.50	3.50	ECME400 Marine Steam Plants and Com	3	3	4.50	3.50	ESEA335 Refrigeration at Sea					1.00
MATH330 Operations Research 2	3	0	3.00	3.00	ECME410 Marine Steam Plant Simulation	0	3	1.50	0.50	ESEA340 Shipboard Systems 2 at Sea					2.00
					ECME450 Gas Turbines and Marine Auxil	3	3	4.50	3.50	ESEA345 Electrical Engineering at Sea					1.00
					EREM400 Engineering Economics	3	0	3.00	3.00						
					HIST300 Seminar in U.S. History since 19	2	0	2.00	2.00						
	15	5	17.50	16.50		16	12	23.50	18.00		0	0	0.00	8.50	
Term 10				Term 11				Term 12				Term 13			
C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR
ESEA350 Marine Propulsion 3 at Sea			2.50	ECES402 Machine Elements	2	1	2.00	2.50	ECME460 Marine Engineering License S	1	2	3.00	0.50		
NSA340 Maritime Business			1.00	ECME420 Internal Combustion Engines	3	3	4.50	3.50	EMEM425 Engineering Project Managem	1	2	2.00	3.50		
HSEA300 Humanities Sea Practical			1.00	ECME431 Marine Refrigeration	2	3	3.50	2.50	NAUT420 Advanced Firefighting	1	1	2.00	1.50		
ESEA400 Shipyard Internship			2.00	ECME440 Engine Room Resource Manag	0	4	4.00	1.00	BUSN210 Principles of Economics	3	0	3.00	3.00		
				ECME470 Marine Plant Automation and C	2	3	3.50	2.50	HIST400 Seminar in National Security Po	2	0	2.00	2.00		
				ECNA401 Naval Architecture for Marine E	3	0	2.50	2.50	NASC410 Naval Science Senior Semina	2	0	2.00	1.50		
				EMEM415 Engineering Project Managem	3	1	3.50	3.50	PE&A200 Medical Care Provider	0	2	2.00	1.00		
				NASC400 Naval Leadership & Ethics	2	0	2.00	2.00							
	0	0	0.00	6.50		17	15	25.50	20.00		10	7	16.00	13.00	
Total In-Resident Credits														159.00	
Total Credits														180.00	

Marine Engineering Systems, BS

Marine Engineering Systems Program

The Marine Engineering Systems program prepares Midshipmen to serve as licensed officers in the U.S. Merchant Marine; provides an engineering education that prepares them for a wide variety of professional positions in such career fields as ship systems and marine equipment design, research, construction, operations, marketing, maintenance, repair and survey; and imparts to them an engineering education that permits them to pursue graduate study and/or to become licensed as a Professional Engineer, should they so choose. This program focuses on the design of marine power plants and their associated systems.

An important element in the Marine Engineering Systems program is the design experience that is interwoven throughout four years, culminating in a major capstone design project in senior year. The student participates as part of a team tasked with the design of a ship power plant.

The project is spread over three terms and concludes with the presentation of the final design to a panel of faculty and invited industry professionals.

The Marine Engineering Systems program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>. To enroll in this program, a Midshipman must have a CQPA of at least 2.67 at the end of the 4th class (plebe) year. The sample curriculum for both A, B and C splits follows.

Marine Engineering Systems, A-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
 ECME101 - Introduction to Marine Engineering I

MATH101 - Calculus 1

PHYS110 - Physics 1

HIST100 - History of Sea Power

NASC100 - Introduction to Naval Science
PE&A110 - Basic Swimming
CMDT100 - Social Responsibility **Credits: 0**

Term 2

EC EE100 - Introduction to Electrical Engineering
ECMT100 - Engineering Graphics
ECMT111 - Engineering Shop I
MATH140 - Calculus 2 Engine
PHYS120 - Physics 2
LITR101 - Composition and Literature
PE&A120 - First Aid
PE&A125 - Self Defense Tactics

Term 3

ECES100 - Statics
ECME105 - Introduction to Marine Engineering II
ECMT112 - Engineering Shop II
NAUT110 - Basic Firefighting and Safety
MATH215 - Probability and Statistics for Engineers
CHEM100 - General Chemistry
BUSN101 - Principles of Leadership
PE&A130 - Aquatic Survival
MLOG120 - Vessel Personnel with Designated Security Duties

Term 4

ECES201 - Thermodynamics
ECES211 - Dynamics
ECES230 - Fluid Mechanics
MATH240 - Introduction to Differential Equations and Linear Algebra
PHYS230 - Physics 3
COMP105 - Computer Programming
WRIT110 - Technical & Professional Communications
NASC200 - Strategic Sealift
WTRF100 - Safety of Life At Sea

Term 5

ESEA210 - Machine Shop at Sea
ESEA230 - Main Propulsion 1 at Sea
ESEA240 - Shipboard Systems 1 at Sea
NSEA245 - Deck Operations

Term 6

EC EE200 - Electric Circuits
ECES220 - Introduction to Materials Engineering
ECES221 - Introduction to Materials Engineering Laboratory
MATH305 - Calculus 3
CHEM210 - Selected Topics in Chemistry for Marine Engineers
BUSN210 - Principles of Economics
HIST200 - Regional Studies

Total In-Resident Credits: 157.00
Total Credits: 176.00

Term 7

ECDL400 - Basic Tanker Operations-Dangerous Liquids
EC EE300 - Electric Machines
ECES300 - Strength of Materials
ECES310 - Heat Transfer
MATH350 -Introduction to Partial Differential Equations
HIST300 - Seminar in U.S. History since 1945
LITR201 - Literature

Term 8

ESEA310 - Maintenance Management
ESEA320 - Naval Arch at Sea
ESEA330 - Marine Propulsion 2 at Sea
ESEA335 - Refrigeration at Sea
ESEA340 - Shipboard Systems 2 at Sea
ESEA345 - Electrical Engineering at Sea

Term 9

ESEA350 - Marine Propulsion 3 at Sea
NSEA340 - Maritime Business
HSEA300 - Humanities Sea Practical

Term 10

EC EM401 - Marine Engineering Management
ECME440 - Engine Room Resource Management
ECME450 - Gas Turbines and marine Auxiliary Equipment
ECME470 - Marine Plant Automation and Controls
ECNA401 - Naval Architecture for Marine Engineers
EREM300 - Engineering Economics
ESME400 - Capstone 1

Term 11

ECME400 - Marine Steam Plants and Components
ECME410 - Marine Steam Plant Simulation
ECME420 - Internal Combustion Engines
ECME431 - Marine Refrigeration
ECES402 - Machine Elements
ESME410 - Capstone 2
NASC400 - Naval Leadership & Ethics
PE&A200 - Medical Care Provider

Term 12

EC EE400 - Electronics
ECME460 - Marine Engineering License Seminar
ESME420 - MES Capstone 3
NAUT420 - Advanced firefighting
HIST400 - Seminar in National Security Policy and Strategy
NASC410 - Naval Science Senior Seminar
Engineering Elective

Office of the Registrar														
United States Merchant Marine Academy														
Class of 2030 A & Beyond					Major: Marine Engineering Systems A									
	C	L	CHr	CR	Term 2	C	L	CHr	CR	Term 3	C	L	CHr	CR
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	ECET100 Introduction to Electrical Engin	3	2	4.00	3.50	ECES100 Statics	3	0	3.00	3.00
ECME101 Introduction to Marine Engineer	3	3	4.50	3.50	ECMT100 Engineering Graphics	0	2	2.00	1.00	ECME105 Introduction to Marine Engineer	3	2	3.00	3.50
MATH101 Calculus 1	3	0	3.00	3.00	ECMT111 Engineering Shop II	0	3	3.00	1.00	ECMT112 Engineering Shop II	1	0	3.00	1.00
PHYS110 Physics 1	3	2	4.50	3.00	MATH140 Calculus 2 Engine	3	0	3.00	3.00	NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00
HIST100 History of Sea Power	3	0	3.00	3.00	PHYS120 Physics 2	3	2	4.50	3.00	MATH215 Probability & Statistics Engineer	3	0	3.00	3.00
NASC100 Introduction to Naval Science	2	0	2.00	2.00	LITR101 Composition & Literature	3	0	3.00	3.00	CHEM100 General Chemistry	3	2	5.00	4.00
PE&A110 Basic Swimming	0	2	2.00	1.00	PE&A120 First Aid	0	2	1.00	0.50	BUSN101 Principles of Leadership	1	0	1.00	1.00
CMDT100 Social Responsibility			0.00		PE&A125 Self Defense Tactics	0	2	1.00	0.50	PE&A130 Aquatic Survival	0	2	2.00	1.00
										MLOG120 VPDSD	0	1	1.00	0.00
	16	9	23.00	18.50		12	13	21.50	15.50		16	7	23.00	18.50
	C	L	CHr	CR	Term 5	C	L	CHr	CR	Term 6	C	L	CHr	CR
ECES201 Thermodynamics	3	0	3.00	3.00	ESEA210 Machine Shop at Sea				1.00	ECET200 Electric Circuits	2	2	3.00	2.50
ECES211 Dynamics	2	1	2.00	2.50	ESEA230 Marine Propulsion 1 at Sea				2.00	ECES220 Introduction to Materials Engin	2	0	2.00	2.00
ECES230 Fluid Mechanics	3	2	4.00	3.50	ESEA240 Shipboard Systems 1 at Sea				2.00	ECES221 Introduction to Materials Engin	0	2	1.00	0.50
MATH240 Introduction to Differential Equa	3	0	3.00	3.00	NSEA245 Deck Operations				1.00	MATH305 Calculus 3	3	0	3.00	3.00
PHYS230 Physics 3	3	2	4.50	3.00						CHEM210 Selected Topics in Chemistry I	2	1	2.00	2.00
COMP105 Computer Programming	0	2	2.00	1.00						BUSN210 Principles of Economics	3	0	3.00	3.00
WRIT110 Technical & Professional Com	2	0	2.00	2.00						HIST200 Regional Studies	3	0	3.00	3.00
NASC200 Strategic Sealift	2	0	2.00	2.00										
WTRF100 Safety of Life at Sea	1	2	3.00	2.00										
	19	9	25.50	22.00		0	0	0.00	6.00		15	5	17.00	16.00
	C	L	CHr	CR	Term 8	C	L	CHr	CR	Term 9	C	L	CHr	CR
ECOL400 Basic Tanker Operations-Dang	2	0	2.00	2.00	ESEA310 Maintenance Management					ESEA350 Marine Propulsion 3 at Sea				2.50
ECET300 Electric Machines	3	2	4.00	3.50	ESEA320 Naval Arch at Sea					NSEA340 Maritime Business				1.00
ECES300 Strength of Materials	3	0	3.00	3.00	ESEA330 Marine Propulsion 2 at Sea					HSEA300 Humanities Sea Practical				1.00
ECES310 Heat Transfer	3	2	4.00	3.50	ESEA335 Refrigeration at Sea									
MATH350 Introduction to Partial Differenti	3	0	3.00	3.00	ESEA340 Shipboard Systems 2 at Sea									
HIST300 Seminar in U.S. History since 15	2	0	2.00	2.00	ESEA345 Electrical Engineering at Sea									
LITR201 Literature	3	0	3.00	3.00										
	19	4	21.00	20.00		0	0	0.00	8.50					
	C	L	CHr	CR	Term 11	C	L	CHr	CR	Term 12	C	L	CHr	CR
ECEN401 Marine Engineering Managem	1	2	3.00	2.00	ECME400 Marine Steam Plants and Com	3	3	4.50	3.50	ECET400 Electronics	2	1	3.00	2.50
ECME440 Engine Room Resource Mana	0	4	4.00	1.00	ECME410 Marine Steam Plant Simulation	0	3	1.50	0.50	ECME460 Marine Engineering License St	1	2	3.00	0.50
ECME450 Gas Turbines and marine Auxil	3	3	4.50	3.50	ECME420 Internal Combustion Engines	3	3	4.50	3.50	ESME420 Capstone 3	1	1	1.5	1.50
ECME470 Marine Plant Automation and C	2	3	3.50	2.50	ECME431 Marine Refrigeration	2	3	3.50	2.50	NAUT420 Advanced Firefighting	1	1	2.00	1.50
ECNA401 Naval Architecture for Marine E	3	0	2.50	2.50	ECES402 Machine Elements	2	1	2.00	2.50	HIST400 Seminar in National Security Pol	2	0	2.00	2.00
EREM300 Engineering Economics	3	0	3.00	3.00	ESME410 Capstone 2	1	1	2.50	2.00	NASC410 Naval Science Senior Seminar	2	0	2.00	1.50
ESME400 Capstone 1	1	1	2.00	2.00	NASC400 Naval Leadership & Ethics	0	2	2.00	2.00	EEXX XXX Engineering Elective	3	0	3.00	3.00
					PE&A200 Medical Care Provider	0	2	1	1.00					
	13	13	22.50	16.50		13	16	21.50	17.50					
										Total In-Resident Credits	12	5	16.50	12.50
										Total Credits				176.00

Marine Engineering Systems, B-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
 ECME101 - Introduction to Marine Engineering I
 HIST100 - History of Sea Power
 MATH101 - Calculus 1
 PHYS110 - Physics 1
 PE&A110 - Basic Swimming
 NASC100 - Introduction to Naval Science
 CMDT 100 - Social Responsibility

Term 2

ECME105 - Introduction to Marine Engineering II
 ECMT111 - Engineering Shop I
 NAUT110 - Basic Firefighting and Safety
 BUSN101 - Principles of Leadership
 MATH140 - Calculus 2 Engine
 CHEM100 - General Chemistry
 LITR101 - Composition and Literature
 PE&A120 - First Aid
 PE&A125 - Self Defense Tactics
 MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

ECET100 - Introduction to Electrical Engineering
 ECMT100 - Engineering Graphics
 ECMT112 - Engineering Shop II
 ECES100 - Statics
 MATH215 - Probability and Statistics for Engineers
 PHYS120 - Physics 2
 WTRF100 - Safety of Life At Sea
 PE&A130 - Aquatic Survival

Term 4

ESEA210 - Machine Shop at Sea
 ESEA230 - Main Propulsion 1 at Sea
 ESEA240 - Shipboard Systems 1 at Sea
 NSEA245 - Deck Operations

Term 5

ECES201 - Thermodynamics
 ECES211 - Dynamics
 ECDL400 - Basic Tanker Operations-Dangerous Liquids
 MATH240 - Introduction to Differential Equations and Linear Algebra
 COMP105 - Computer Programming
 HIST200 - Regional Studies

WRIT110 - Technical & Professional Communications

Term 6

ECET200 - Electric Circuits
 ECES220 - Introduction to Materials Engineering
 ECES221 - Introduction to Materials Engineering Laboratory
 ECES230 - Fluid Mechanics
 PHYS230 - Physics 3
 MATH305 - Calculus 3
 BUSN210 - Principles of Economics
 NASC200 - Strategic Sealift

Term 7

ESEA310 - Maintenance Management
 ESEA320 - Naval Arch at Sea
 ESEA330 - Marine Propulsion 2 at Sea
 ESEA335 - Refrigeration at Sea
 ESEA340 - Shipboard Systems 2 at Sea
 ESEA345 - Electrical Engineering at Sea

Term 8

ESEA350 - Marine Propulsion 3 at Sea
 NSEA340 - Maritime Business
 HSEA300 - Humanities Sea Practical

Term 9

ECET400 - Electric Machines
 ECES300 - Strength of Materials
 ECES310 - Heat Transfer
 MATH350 - Introduction to Partial Differential Equations
 CHEM210 - Selected Topics in Chemistry for Marine Engineers
 HIST300 - Seminar in U.S. History since 1945
 LITR201 - Literature

Term 10

ECME400 - Marine Steam Plants and Components
 ECME410 - Marine Steam Plant Simulation
 ECME420 - Internal Combustion Engines
 ECME431 - Marine Refrigeration
 ECES402 - Machine Elements
 EREM300 - Engineering Economics
 ESME400 - Capstone 1

Term 11

ECEN401 - Marine Engineering Management

ECME440 - Engine Room Resource Management
 ECME450 - Gas Turbines and marine Auxiliary
 Equipment
 ECME470 - Marine Plant Automation and Controls
 ECNA401 - Naval Architecture for Marine Engineers
 ESME410 - Capstone 2
 NASC400 - Naval Leadership & Ethics

Term 12
 ECEE400 - Electronics
 ECME460 - Marine Engineering License Seminar
 ESME420 - MES Capstone 3
 NAUT420 - Advanced firefighting
 NASC410 - Naval Science Senior Seminar
 PE&A200 - Medical Care Provider
 Engineering Elective

Total In-Resident Credits: 157.00

Total Credits: 176.00

Class of 2020 B & Beyond					Office of the Registrar United States Merchant Marine Academy					Major: Marine Engineering Systems B				
Term 1	C	L	Chr	CR	Term 2	C	L	Chr	CR	Term 3	C	L	Chr	CR
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	ECME105 Introduction to Marine Engine	3	2	4.00	3.50	ECEE100 Introduction to Electrical Engi	3	2	4.00	3.50
ECME101 Introduction to Marine Engineering	3	3	4.50	3.50	ECMT111 Engineering Shop I	0	3	3.00	1.00	ECMT100 Engineering Graphics	3	3	6.00	1.00
HIST100 History of Sea Power	3	0	3.00	3.00	NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00	ECMT112 Engineering Shop II	0	3	3.00	1.00
MATH101 Calculus 1	3	0	3.00	3.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	ECES100 Statics	3	0	3.00	3.00
PHYS110 Physics 1	3	2	4.50	3.00	MATH140 Calculus 2 Engine	2	0	3.00	3.00	MATH215 Probability & Statistics Engine	3	0	3.00	3.00
PE&A110 Basic Swimming	0	2	2.00	1.00	CHEM100 General Chemistry	3	2	5.00	4.00	PHYS120 Physics 2	3	2	4.50	3.00
NASC100 Introduction to Naval Science	2	0	2.00	2.00	LITR101 Composition & Literature	3	0	3.00	3.00	WTRF100 Safety of Life at Sea	1	2	3.00	2.00
CMDT100 Social Responsibility				0.00	PE&A120 First Aid	0	2	1.00	0.50	PE&A130 Aquatic Survival	0	2	2.00	1.00
					PE&A125 Self Defense Tactics	0	2	1.00	0.50					
					MLOG120 VPDSD	0	1	1.00	0.00					
	16	9	23.00	18.50		14	12	24.00	18.50		16	14	28.50	17.50
Term 4	C	L	Chr	CR	Term 5	C	L	Chr	CR	Term 6	C	L	Chr	CR
ESEA210 Machine Shop at Sea				1.00	ECES201 Thermodynamics	3	0	3.00	3.00	ECEE200 Electric Circuits	2	2	3.00	2.50
ESEA230 Marine Propulsion 1 at Sea				2.00	ECES211 Dynamics	2	1	2.00	2.50	ECES220 Introduction to Materials Engi	2	0	2.00	2.00
ESEA240 Shipboard Systems 1 at Sea				2.00	EQD1400 Basic Tanker Operations-Dan	2	0	2.00	2.00	ECES221 Introduction to Materials Engi	0	2	1.00	0.50
NSEA245 Deck Operations				1.00	MATH240 Introduction to Differential Equations	3	0	3.00	3.00	ECES230 Fluid Mechanics	3	2	4.00	3.50
					COMP105 Computer Programming	0	2	2.00	1.00	PHYS230 Physics 3	3	2	4.50	3.00
					HIST200 Regional Studies	3	0	3.00	3.00	MATH305 Calculus 3	3	0	3.00	3.00
					WRIT110 Technical & Professional Communication	2	0	2	2.00	BUSN210 Principles of Economics	3	0	3.00	3.00
	0	0	0.00	6.00		15	3	17.00	16.50	NASC200 Strategic Sealift	2	0	2.00	2.00
Term 7	C	L	Chr	CR	Term 8	C	L	Chr	CR	Term 9	C	L	Chr	CR
ESEA310 Maintenance Management				1.00	ESEA350 Marine Propulsion 3 at Sea				2.50	ECEE300 Electric Machines	3	2	4.00	3.50
ESEA320 Naval Arch at Sea				1.00	NSEA340 Maritime Business				1.00	ECES300 Strength of Materials	3	2	4.00	3.50
ESEA330 Marine Propulsion 2 at Sea				2.50	HSEA300 Humanities Sea Practical				1.00	ECES310 Heat Transfer	3	0	3.00	3.00
ESEA335 Refrigeration at Sea				1.00						MATH350 Introduction to Partial Differential Equations	3	0	3.00	3.00
ESEA340 Shipboard Systems 2 at Sea				2.00						CHEM210 Selected Topics in Chemistry for Marine Engineers	2	1	2.00	2.00
ESEA345 Electrical Engineering at Sea				1.00						HIST300 Seminar in U.S. History since 1800	2	0	2.00	2.00
	0	0	0.00	8.50		0	0	0.00	4.50	LITR201 Literature	3	0	3.00	3.00
Term 10	C	L	Chr	CR	Term 11	C	L	Chr	CR	Term 12	C	L	Chr	CR
ECME400 Marine Steam Plants and Components	3	3	4.50	3.50	ECME401 Marine Engineering Management	1	2	3.00	2.00	ECEE400 Electronics	2	1	3.00	2.50
ECME410 Marine Steam Plant Simulation	0	3	1.50	0.50	ECME440 Engine Room Resource Management	0	4	4.00	1.00	ECME460 Marine Engineering License Seminar	1	2	3.00	0.50
ECME420 Internal Combustion Engines	3	3	4.50	3.50	ECME450 Gas Turbines and marine Auxiliary Equipment	3	3	4.50	3.50	ESME420 Capstone 3	1	1	1.50	1.50
ECME431 Marine Refrigeration	2	3	3.50	2.50	ECME470 Marine Plant Automation and Controls	2	3	3.50	2.50	NAUT420 Advanced Firefighting	1	1	2.00	1.50
ECES402 Machine Elements	2	1	2.00	2.50	ECNA401 Naval Architecture for Marine Engineers	3	0	2.50	2.50	NASC410 Naval Science Senior Seminar	2	0	2.00	1.50
EREM300 Engineering Economics	3	0	3.00	3.00	ESME410 Capstone 2	1	1	2.00	2.00	HIST400 Seminar in National Security Policy	2	0	2.00	2.00
ESME400 Capstone 1	1	1	2.00	2.00	NASC400 Naval Leadership & Ethics	2	0	2.00	2.00	PE&A200 Medical Care Provider	1	1	2.00	1.00
	14	14	21.00	17.50		12	13	21.50	15.50	EEXX XXX Engineering Elective	3	0	3.00	3.00
										Total In-Resident Credits	13	6	18.50	13.50
										Total Credits				176.00

Marine Engineering Systems, C-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
 ECME101 - Introduction to Marine Engineering I
 MATH101 - Calculus 1
 PHYS110 - Physics 1
 HIST100 - History of Sea Power
 NASC100 - Introduction to Naval Science
 PE&A110 - Basic Swimming
 CMDT100 Social Responsibility

Term 2

ECEE100 - Introduction to Electrical Engineering
 ECMT100 - Engineering Graphics
 ECMT111 - Engineering Shop I
 MATH140 - Calculus 2 Engine
 CHEM100 - General Chemistry
 LITR101 - Composition and Literature
 PE&A120 - First Aid
 PE&A125 - Self Defense Tactics
 MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

ECES100 - Statics
 ECME105 - Introduction to Marine Engineering II
 ECMT112 - Engineering Shop II
 NAUT110 - Basic Firefighting and Safety
 BUSN101 - Principles of Leadership
 MATH215 - Probability and Statistics for Engineers
 PHYS120 - Physics 2
 PE&A130 - Aquatic Survival

Term 4

ECES201 - Thermodynamics
 ECES211 - Dynamics

MATH240 - Introduction to Differential Equations and Linear Algebra
 PHYS230 - Physics 3
 COMP105 - Computer Programming
 WRIT110 - Technical & Professional Communications
 NASC200 - Strategic Sealift
 WTRF100 - Safety of Life At Sea

Term 5

ECEE200 - Electric Circuits
 ECES220 - Introduction to Materials Engineering
 ECES221 - Introduction to Materials Engineering Laboratory
 ECES230 - Fluid Mechanics
 MATH305 - Calculus 3
 CHEM210 - Selected Topics in Chemistry for Marine Engineers
 HIST200 - Regional Studies

Term 6

ESEA210 - Machine Shop at Sea
 ESEA230 - Main Propulsion 1 at Sea
 ESEA240 - Shipboard Systems 1 at Sea
 NSEA245 - Deck Operations

Term 7

ECEE300 - Electric Machines
 ECES300 - Strength of Materials
 ECES310 - Heat Transfer
 EREM300 - Engineering Economics
 ESME400 - MES Capstone 1
 LITR201 - Literature

ECDL400 - Basic Tanker Operations-Dangerous Liquids

ECME400 - Marine Steam Plants and Components
ECME410 - Marine Steam Plant Simulation
ECME420 - Internal Combustion Engines
ECME431 - Marine Refrigeration
ECES402 - Machine Elements
HIST300 - Seminar in U.S. History since 1945
MATH350 - Introduction to Partial Differential Equations

Term 9

ESEA310 - Maintenance Management
ESEA320 - Naval Arch at Sea
ESEA330 - Marine Propulsion 2 at Sea
ESEA335 - Refrigeration at Sea
ESEA340 - Shipboard Systems 2 at Sea
ESEA345 - Electrical Engineering at Sea

Term 10

ESEA350 - Marine Propulsion 3 at Sea
NSEA340 - Maritime Business

HSEA300 - Humanities Sea Practical

Term 11

ECME401 - Marine Engineering Management
ECME440 - Engine Room Resource Management
ECME450 - Gas Turbines and Marine Auxiliary Equipment
ECME470 - Marine Plant Automation and Controls
ECNA401 - Naval Architecture for Marine Engineers
ESME410 - MES Capstone 2
NASC400 - Naval Leadership and Ethics
PE&A200 - Medical Care Provider

Term 12

Elective Courses

- ECEE400 - Electronics
- ESME420 - MES Capstone 3
- ECME460 - Marine Engineering License Seminar
- NAUT420 - Advanced firefighting
- BUSN210 - Principles of Economics
- HIST400 - Seminar in National Security Policy and Strategy
- NASC410 - Naval Science Senior Seminar
- Engineering Elective

Total In-Resident Credits: 157.00**Total Credits: 176.00**

Class of 2030 C & Beyond					Office of the Registrar United States Merchant Marine Academy					Major: Marine Engineering Systems C				
	C	L	CHr	CR	Term 2	C	L	CHr	CR	Term 3	C	L	CHr	CR
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	ECEE100 Introduction to Electrical Engine	3	2	4.00	3.50	ECE3100 Statics	3	0	3.00	3.00
ECME101 Introduction to Marine Engine	3	3	4.50	3.50	ECAUT100 Engineering Graphics	0	2	2.00	1.00	ECME105 Introduction to Marine Engine	4	0	3.00	3.50
MATH101 Calculus 1	3	0	3.00	3.00	ECAUT111 Engineering Shop I	1	3	3.00	1.00	ECMT112 Engineering Shop II	1	0	3.00	1.00
PHY510 Physics 1	3	2	4.50	3.00	NAUT110 Basic Freightling and Safety	2	0	2.00	2.00	BUSN101 Principles of Leadership	1	0	1.00	1.00
HIST100 History of Sea Power	3	0	3.00	3.00	MATH140 Calculus 2 Engine	2	0	3.00	3.00	MATH215 Probability & Statistics Engine	3	0	3.00	3.00
NASC100 Introduction to Naval Science	2	0	2.00	2.00	CEM100 General Chemistry	3	2	5.00	4.00	PHY5120 Physics 2	3	2	5.00	3.00
PEA110 Basic Welding	0	2	2.00	1.00	LITR101 Composition & Literature	3	0	3.00	3.00	PEA310 Aquatic Survival	0	2	2.00	1.00
CEMT100 Social Responsibility				0.00	PEAA120 First Aid	0	1	1.00	0.00					
					PEAA125 Self Defense Tactics	0	2	1.00	0.50					
					MLOG120 VPDSO	0	1	1.00	0.00					
	16	9	25.00	18.50		13	14	25.00	18.50		14	4	19.50	15.50
Term 4	C	L	CHr	CR	Term 5	C	L	CHr	CR	Term 6	C	L	CHr	CR
ECE5201 Thermodynamics	3	0	3.00	3.00	ECEE200 Electrical Circuits	2	2	3.00	2.50	ESEA210 Machine Shop at Sea				
ECE5211 Dynamics	2	1	2.00	2.50	ECE5220 Introduction to Materials Engin	2	0	2.00	2.00	ESEA230 Marine Population 1 at Sea				1.00
MATH240 Introduction to Differential Equa	3	0	3.00	3.00	ECE5231 Introduction to Materials Engin	0	2	1.00	0.50	ESEA420 Shipboard Systems 1 at Sea				2.00
PHY5230 Physics 3	3	2	4.50	3.00	ECE5222 Fluid Mechanics	3	2	4.00	3.50	ESEA425 Deck Operations				1.00
COMP105 Computer Programming	0	2	2.00	1.00	CEM305 Calculus 3	3	0	3.00	3.00					
WRIT110 Technical & Professional Com	2	0	2.00	2.00	CHEM210 Selected Topics in Chemistry f	2	1	2.00	2.00					
NASC20 Strategic Sealift	2	0	2.00	2.00	HIST200 Regional Studies	3	0	3.00	3.00					
WTRF100 Safety of Life at Sea	1	2	3.00	2.00										
	16	7	21.50	18.50		15	7	18.00	16.50		0	0	0.00	6.00
Term 7	C	L	CHr	CR	Term 8	C	L	CHr	CR	Term 9	C	L	CHr	CR
ECEE300 Electrical Machines	3	2	4.00	3.50	ECDL400 Basic Tanker Operations-Dan	2	0	2.00	2.00	ESEA310 Maintenance Management				1.00
ECE3300 Strength of Materials	3	2	4.00	3.50	ECEM400 Marine Steam Plants and Com	3	3	4.50	3.50	ESEA320 Naval Arch at Sea				1.00
ECE3210 Heat Transfer	3	3	3.00	3.00	ECEM410 Marine Steam Plant Simulation	2	1	2.00	2.00	ESEA330 Marine Population 2 at Sea				2.50
EREM300 Engineering Economics	3	0	3.00	3.00	ECEM420 Internal Combustion Engines	3	3	4.50	3.50	ESEA335 Refrigeration at Sea				1.00
ESM450 Capstone 1	1	1	2.00	2.00	ECME431 Marine Refrigeration	2	3	3.50	2.50	ESEA340 Shipboard Systems 2 at Sea				2.00
LITR201 Literature	3	0	3.00	3.00	ECE5402 Machine Elements	2	1	2.00	2.50	ESEA345 Electrical Engineering at Sea				1.00
					HIST300 Seminar in U.S. History since 15	2	2	2.00	2.00					
					MATH350 Introduction to Partial Differen	3	0	3.00	3.00					
	16	5	19.00	16.00		17	13	23.00	19.50		0	0	0.00	8.50
Term 10	C	L	CHr	CR	Term 11	C	L	CHr	CR	Term 12	C	L	CHr	CR
ESEA340 Marine Population 3 at Sea				2.50	ECEM401 Marine Resource Management	1	2	3.00	2.00	ECEE400 Electronics	2	1	3.00	2.50
NSEA340 Maritime Business Practical				1.00	ECEM440 Engine Room Resource Manag	0	4	4.00	1.00	ESME420 Capstone 3	1	1	1.50	1.50
HSEA340 Humanities Sea Practical				1.00	ECME450 Gas Turbines and marine Aux	3	3	4.50	3.50	ECME460 Marine Engineering License S	1	2	3.00	0.50
					ECME470 Marine Plant Automation and C	2	3	3.50	2.50	NAUT1420 Advanced Firefighting	2	0	2.00	1.50
					ECNA401 Naval Architecture for Marine E	3	0	2.50	2.50	BUSN 210 Principles of Economics	3	0	3.00	3.00
					ESME441 Capstone 2	1	1	2.00	2.00	HIST400 Seminar in National Security P	2	0	2.00	2.00
					NASC400 Naval Leadership & Ethics	2	2	2.00	2.00	PEAS4210 Naval Science Senior Semina	2	0	2.00	1.50
					PEAA200 Medical Care Provider	1	2	1.00	1.00	EEXX XXX Engineering Elective	3	0	3.00	3.00
	0	0	0.00	4.50		13	14	23.00	16.50		15	5	19.50	15.00
										Total In-Resident Credits				157.00

Marine Engineering, BS

Marine Engineering Program

The Marine Engineering program prepares Midshipmen to serve as officers in the U.S. Merchant Marine and to provide them with an engineering education that prepares them for a wide variety of professional positions including the career fields of ship construction, operation, marketing, maintenance, repair and survey.

The program focuses on the operational and applied aspects of the marine engineering profession. It allows Midshipmen the opportunity to choose elective courses in order to tailor the program of study to meet their individual professional goals.

Graduates of the Marine Engineering program are exceptionally well suited for employment at sea as engineering officers, as well as ashore in the applied phases of the engineering spectrum such as power generation and technical marketing. The sample curriculum for both A, B and C splits follow.

Marine Engineering, A-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
ECME101 - Introduction to Marine Engineering I
MATH101 - Calculus 1
PHYS110 - Physics 1

HIST100 - History of Sea Power
PE&A110 - Basic Swimming
NASC100 - Introduction to Naval Science
CMDT100 Social Responsibility

ECEE100 - Introduction to Electrical Engineering
 ECMT100 - Engineering Graphics
 ECMT111 - Engineering Shop I
 MATH140 - Calculus 2 Engine
 PHYS120 - Physics 2
 LITR101 - Composition and Literature
 PE&A120 - First Aid
 PE&A125 - Self Defense Tactics

ECME105 - Introduction to Marine Engineering II
ECES100 - Statics
ECMT112 - Engineering Shop II
NAUT110 - Basic Firefighting and Safety
BUSN101 - Principles of Leadership
MATH215 - Probability and Statistics for Engineers
CHEM100 - General Chemistry
PE&A130 - Aquatic Survival
MLOG120 - Vessel Personnel with Designated
Security Duties

ECES201 - Thermodynamics
ECES211 - Dynamics
ECES230 - Fluid Mechanics
CHEM210 - Selected Topics in Chemistry for
Marine Engineers
BUSN210 - Principles of Economics
WRIT110 - Technical & Professional
Communications
NASC200 - Strategic Sealift
WTRF100 - Safety of Life At Sea

ESEA210 - Machine Shop at Sea
ESEA230 - Marine Propulsion 1 at Sea
ESEA240 - Shipboard Systems 1 at Sea
NSEA245 - Deck Operations

ECEE200 - Electric Circuits
 ECES220 - Introduction to Materials Engineering
 ECES221 - Introduction to Materials Engineering
 Laboratory
 COMP105 - Computer Programming
 MATH240 - Introduction to Differential Equations
 and Linear Algebra
 HIST200 - Regional Studies
 LITR201 - Literature

ECDL400 - Basic Tanker Operations-Dangerous Liquids
ECEE300 - Electric Machines
ECES300 - Strength of Materials
ECES310 - Heat Transfer
HIST300 - Seminar in U.S. History since 1945
NASC400 - Naval Leadership and Ethics

ESEA310 - Maintenance Management
ESEA320 - Naval Arch at Sea
ESEA330 - Marine Propulsion 2 at Sea
ESEA335 - Refrigeration at Sea
ESEA340 - Shipboard Systems 2 at Sea
ESEA345 - Electrical Engineering at Sea

ESEA350 - Marine Propulsion 3 at Sea
NSEA340 - Maritime Business
HSEA300 - Humanities Sea Practical

ECME401 - Marine Engineering Management
ECME440 - Engine Room Resource Management
ECME450 - Gas Turbines and marine Auxiliary
Equipment
ECME470 - Marine Plant Automation and Controls
ECNA401 - Naval Architecture for Marine Engineers
Free Elective

ECCE400 - Electronics
ECME400 - Marine Steam Plants and Components
ECME410 - Marine Steam Plant Simulation
ECME420 - Internal Combustion Engines
ECME431 – Marine Refrigeration
Free Elective

ECME460 - Marine Engineering License Seminar
ECES402 - Machine Elements
NAUT420 - Advanced firefighting
HIST400 - Seminar in National Security Policy and Strategy
NASC410 - Naval Science Senior Seminar
PE&A200 - Medical Care Provider
Free Elective

Total Credits: 164.50

Class of 2030 A & Beyond					Office of the Registrar United States Merchant Marine Academy					Major: Marine Engineering A									
Term 1	C	L	CHr	CHR	Term 2	C	L	CHr	CHR	Term 3	C	L	CHr	CHR	Term 4	C	L	CHr	CHR
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	ECEE100 Introduction to Electrical Engin	3	2	4.00	3.50	ECME105 Introduction to Marine Engine	3	3	4.50	3.80	ECES100 Statics	3	3	3.00	1.00
ECME101 Introduction to Marine Engine	3	2	4.50	0.00	ECMT100 Engineering Graphics	0	2	2.00	1.00	MATH215 Probability & Statistics Engin	0	3	3.00	3.00	ECMA105 Mathematics I	3	3	3.00	1.00
MAT101 Calculus I	3	3	3.00	3.00	ECMT111 Engineering Shop I	0	3	3.00	1.00	ECMT112 Engineering Shop II	0	3	3.00	1.00	HIST100 History of Sea Power	3	2	2.00	1.00
PHYS110 Physics I	3	3	4.50	3.00	MATH140 Calculus 2 Engine	0	3	3.00	3.00	NAUT110 Basic Firefighting and Safety	2	2	2.00	2.00	ECMA110 Basic Swimming	3	3	3.00	3.00
HST100 History of Sea Power	3	3	3.00	3.00	PHYS120 Physics 2	3	2	4.50	3.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	ECMA115 Naval Architecture for Marine	3	3	3.00	3.00
ECMA110 Basic Swimming	3	2	2.00	1.00	PSEA120 Professional & Literature	0	3	3.00	0.00	MATH216 Probability & Statistics Engin	0	3	3.00	3.00	ECMA120 General Chemistry	3	2	5.00	4.00
NASC100 Introduction to Naval Science	2	0	2.00	2.00	PEA121 Self Defense Tactics	0	2	1.00	5.00	PEA130 Aquatic Survival	0	2	2.00	1.00	ECMA125 Self Defense Tactics	0	2	1.00	5.00
CMDDT100 Social Responsibility	0	0	0.00	0.00						MLG120 VPDSD	1	1	24.50	18.50					
	13	9	23.00	18.50		12	13	21.00	15.50		15	11	24.50	18.50					
Term 5	C	L	CHr	CHR	Term 6	C	L	CHr	CHR	Term 7	C	L	CHr	CHR	Term 8	C	L	CHr	CHR
ECES201 Thermodynamics	3	0	3.00	3.00	ESEA210 Machine Shop at Sea	1	0.00	1.00	ECCE200 Electric Circuits	2	2	3.00	2.50	ECES211 Dynamics	2	2	2.00	2.00	
ECES211 Dynamics	2	1	2.00	2.50	ESEA230 Marine Propulsion 1 at Sea	2	2.00	2.00	ECES220 Introduction to Materials Engi	0	2	1.00	1.00	ECHEM210 Selected Topics in Chemistry	2	1	2.00	2.00	
ECES230 Fluid Mechanics	3	2	4.00	3.50	ESEA240 Shipboard Systems 1 at Sea	1	1.00	1.00	COMPIH108 Computer Programming	3	3	3.00	3.00	BUSN210 Principles of Economics	3	0	3.00	3.00	
CHEM210 Selected Topics in Chemistry	2	1	2.00	2.00	NSEA245 Deck Operations				MATH240 Introduction to Differential Equ	3	0	3.00	3.00	NAUT110 Technical & Professional Con	2	0	2.00	2.00	
BUSN210 Principles of Economics	3	0	3.00	3.00					HIST200 Regional Studies	3	0	3.00	3.00	NASC200 Strategic Life at Sea	2	0	2.00	2.00	
WTRF100 Safety of Seafarers	1	1	3.00	2.00					LITR201 Literature	3	0	3.00	3.00						
	18	6	21.00	20.00		0	0	0.00	6.00		13	6	17.00	15.00					
Term 9	C	L	CHr	CHR	Term 10	C	L	CHr	CHR	Term 11	C	L	CHr	CHR	Term 12	C	L	CHr	CHR
ECOL400 Basic Tanker Operations-Dan	2	0	2.00	2.00	ESEA310 Maintenance Management	1	0.00	1.00	ESEA340 Marine Propulsion 3 at Sea	2	2	3.00	2.50	ECES300 Strength of Materials	3	2	4.00	3.50	
ECES400 Electric Machines	3	2	4.00	3.50	ESEA320 Naval Arch at Sea	2	2.00	2.00	HSEA340 Humanities Sea Practical	1	0.00	1.00	ECES310 Heat Transfer	3	3	4.50	3.00		
ECES300 Strength of Materials	3	2	4.00	3.50	ESEA330 Marine Propulsion 2 at Sea	2	2.50	2.50					HIST400 Advanced Firefighting	1	1	2.00	1.50		
ECES310 Heat Transfer	3	3	3.00	3.00	ESEA335 Refrigeration at Sea	1	1.00	1.00					HIST400 Advanced Firefighting	1	1	2.00	1.50		
HST300 Seminar in U.S. History since 1	2	2.00	2.00	ESEA340 Shipboard Systems 2 at Sea	2	2.00	2.00						HIST400 Seminar in National Security P	2	0	2.00	2.00		
NASC400 Naval Leadership & Ethics	3	2	2.00	2.00	ESEA345 Electrical Engineering at Sea	1	0.00	1.00					NASC410 Naval Science Senior Semina	2	0	2.00	1.50		
	15	4	17.00	16.00		0	0	0.00	8.00				PEA400 Naval Architecture for Marine	3	2	2.00	1.50		
													Free Elective	3	0	3.00	3.00		

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Term 1

NAUT101 - Introduction to Nautical Science
ECME101 - Introduction to Marine Engineering I
MATH101 - Calculus 1
PHYS110 - Physics 1
HIST100 - History of Sea Power
NASC100 - Introduction to Naval Science
PE&A110 - Basic Swimming
CMDT100 - Social Responsibility

Term 2

ECME105 - Introduction to Marine Engineering II
ECMT111 - Engineering Shop I
NAUT110 - Basic Firefighting and Safety
BUSN101 - Principles of Leadership
MATH140 - Calculus 2 Engine
CHEM100 - General Chemistry
LITR101 - Composition and Literature
PE&A130 - Aquatic Survival
MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

ECEE100 - Introduction to Electrical Engineering
ECES100 - Statics
ECMT100 - Engineering Graphics
ECMT112 - Engineering Shop II
MATH215 - Probability and Statistics for Engineers
PHYS120 - Physics 2
PE&A120 - First Aid
PE&A125 - Self Defense Tactics
WTRF100 - Safety of Life At Sea

Term 4

ESEA210 - Machine Shop at Sea
ESEA230 - Main Propulsion 1 at Sea
ESEA240 - Shipboard Systems 1 at Sea
NSEA245 - Deck Operations

Term 5

ECES201 - Thermodynamics
ECES211 - Dynamics
MATH240 - Introduction to Differential Equations and Linear Algebra
CHEM210 - Selected Topics in Chemistry for Marine Engineers
HIST200 - Regional Studies
WRIT110 - Technical & Professional Communications
NASC200 - Strategic Sealift

Term 6

ECDL400 - Basic Tanker Operations-Dangerous Liquids
ECEE200 - Electric Circuits

ECES220 - Introduction to Materials Engineering
ECES221 - Introduction to Materials Engineering Laboratory
ECES230 - Fluid Mechanics
COMP105 - Computer Programming
BUSN210 - Principles of Economics

Term 7

ESEA310 - Maintenance Management
ESEA320 - Naval Arch at Sea
ESEA330 - Marine Propulsion 2 at Sea
ESEA335 - Refrigeration at Sea
ESEA340 - Shipboard Systems 2 at Sea
ESEA345 - Electrical Engineering at Sea

Term 8

ESEA350 - Marine Propulsion 3 at Sea
NSEA340 - Maritime Business
HSEA300 - Humanities Sea Practical

Term 9

ECEE300 - Electric Machines
ECES300 - Strength of Materials
ECES310 - Heat Transfer
HIST300 - Seminar in U.S. History since 1945
LITR201 - Literature
NASC400 - Naval Leadership and Ethics

Term 10

ECEE400 - Electronics
ECME400 - Marine Steam Plants and Components
ECME410 - Marine Steam Plant Simulation
ECME420 - Internal Combustion Engines
ECME431 - Marine Refrigeration
Free Elective

Term 11

ECME401 - Marine Engineering Management
ECME440 - Engine Room Resource Management
ECME450 - Gas Turbines and marine Auxiliary Equipment
ECME470 - Marine Plant Automation and Controls
ECNA401 - Naval Architecture for Marine Engineers
Free Elective

Term 12

ECES402 - Machine Elements
ECME460 - Marine Engineering License Seminar
NAUT420 - Advanced firefighting
NASC410 - Naval Science Senior Seminar
HIST400 - Seminar in National Security Policy and Strategy
PE&A200 - Medical Care Provider
Free Elective

Total In-Resident Credits: 145.50

Total Credits: 164.50

Office of the Registrar															
United States Merchant Marine Academy								Major: Marine Engineering B							
Class of 2030 B & Beyond															
Term 1	C	L	CHr	CR	Term 2	C	L	CHr	CR	Term 3	C	L	CHr	CR	
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	ECME105 Introduction to Marine Engineering	3	2	4.00	3.50	ECEE100 Introduction to Electrical Engineering	3	2	4.00	3.50	
ECME101 Introduction to Marine Engineering	3	3	4.50	3.50	ECMT111 Engineering Shop I	0	3	3.00	1.00	ECES100 Statics	3	0	3.00	3.00	
MATH101 Calculus 1	3	0	3.00	3.00	NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00	ECMT100 Engineering Graphics	0	2	2.00	1.00	
PHYS110 Physics 1	3	2	4.50	3.00	BUSN101 Principles of Leadership	1	0	1.00	1.00	ECMT112 Engineering Shop II	0	3	3.00	1.00	
HIST100 History of Sea Power	3	0	3.00	3.00	MATH140 Calculus 2 Engine	2	0	3.00	3.00	MATH215 Probability & Statistics Engineering	3	0	3.00	3.00	
NASC100 Introduction to Naval Science	2	0	2.00	2.00	CHEM100 General Chemistry	3	2	5.00	4.00	PHYS120 Physics 2	3	2	4.50	3.00	
PE&A110 Basic Swimming	0	2	2.00	1.00	LITR101 Composition & Literature	3	0	3.00	3.00	PE&A120 First Aid	0	2	1.00	0.50	
CMDT100 Social Responsibility				0.00	MLOG120 VPDSD	0	2	2.00	1.00	PE&A125 Self Defense Tactics	0	2	1.00	0.50	
						0	1	1.00	0.00	WTRF100 Safety of Life at Sea	1	2	3.00	2.00	
	16	9	23.00	18.50		14	10	24.00	18.50		13	15	24.50	17.50	
Term 4	C	L	CHr	CR	Term 5	C	L	CHr	CR	Term 6	C	L	CHr	CR	
ESEA210 Machine Shop at Sea				1.00	ECES201 Thermodynamics	3	0	3.00	3.00	ECDL400 Basic Tanker Operations-Dangerous Liquids	2	0	2.00	2.00	
ESEA230 Marine Propulsion 1 at Sea				2.00	ECES211 Dynamics	2	0	1.00	2.50	ECES200 Electric Circuits	2	2	3.00	2.50	
ESEA240 Shipboard Systems 1 at Sea				2.00	MATH240 Introduction to Differential Equations and Linear Algebra	3	0	3.00	3.00	ECES220 Introduction to Materials Engineering	2	0	2.00	2.00	
NSEA245 Deck Operations				1.00	CHEM210 Selected Topics in Chemistry for Marine Engineers	2	1	2.00	2.00	ECES221 Introduction to Materials Engineering Laboratory	0	2	1.00	0.50	
					HIST200 Regional Studies	3	0	3.00	3.00	ECES230 Fluid Mechanics	3	2	4.00	3.50	
					WRIT110 Technical & Professional Communications	2	0	2.00	2.00	COMP105 Computer Programming	0	2	2.00	1.00	
					NASC200 Strategic Sealift	2	0	2.00	2.00	BUSN210 Principles of Economics	3	0	3.00	3.00	
	0	0	0.00	6.00		17	1	16.00	17.50		12	8	17.00	14.50	
Term 7	C	L	CHr	CR	Term 8	C	L	CHr	CR	Term 9	C	L	CHr	CR	
ESEA310 Maintenance Management				1.00	ESEA350 Marine Propulsion 3 at Sea				2.50	ECES300 Electric Machines	3	2	4.00	3.50	
ESEA320 Naval Arch at Sea				1.00	NSEA340 Maritime Business				1.00	ECES300 Strength of Materials	3	2	4.00	3.50	
ESEA330 Marine Propulsion 2 at Sea				2.50	HSEA300 Humanities Sea Practical				1.00	ECES310 Heat Transfer	3	0	3.00	3.00	
ESEA335 Refrigeration at Sea				1.00						HIST300 Seminar in U.S. History since 1945	2	0	2.00	2.00	
ESEA340 Shipboard Systems 2 at Sea				2.00						LITR201 Literature	3	0	3.00	3.00	
ESEA345 Electrical Engineering at Sea				1.00						NASC400 Naval Leadership & Ethics	2	0	2.00	2.00	
	0	0	0.00	8.50		0	0	0.00	4.50		16	4	18.00	17.00	
Term 10	C	L	CHr	CR	Term 11	C	L	CHr	CR	Term 12	C	L	CHr	CR	
ECES400 Electronics	2	1	3.00	2.50	ECES401 Marine Engineering Management	1	2	3.00	2.00	ECES402 Machine Elements	2	1	2.00	2.50	
ECME400 Marine Steam Plants and Components	3	3	4.50	3.50	ECME440 Engine Room Resource Management	0	4	4.00	1.00	ECME460 Marine Engineering License Seminar	1	2	3.00	0.50	
ECME410 Marine Steam Plant Simulation	0	3	1.50	0.50	ECME450 Gas Turbines and marine Auxiliary Equipment	3	3	4.50	3.50	NAUT420 Advanced Firefighting	1	1	2.00	1.50	
ECME420 Internal Combustion Engines	3	3	4.50	3.50	ECME470 Marine Plant Automation and Controls	2	3	3.50	2.50	NASC410 Naval Science Senior Seminar	2	0	2.00	1.50	
ECME431 Marine Refrigeration	2	3	3.50	2.50	ECNA401 Naval Architecture for Marine Engineers	3	0	2.50	2.50	HIST400 Seminar in National Security Policy and Strategy	2	0	2.00	2.00	
Free Elective	3	0	3.00	3.00	Free Elective	3	0	3.00	3.00	PE&A200 Medical Care Provider	0	2	2.00	1.00	
	13	13	20.00	15.50		12	12	20.50	14.50	Free Elective	3	0	3.00	3.00	
											11	6	16.00	12.00	
											Total In-Resident Credits				145.50
											Total Credits				164.50

Marine Engineering, C-Split, Curriculum

Term 1

NAUT101 - Introduction to Nautical Science
 ECME101 - Introduction to Marine Engineering I
 MATH101 - Calculus 1
 PHYS110 - Physics 1
 PE&A110 - Basic Swimming
 HIST100 - History of Sea Power
 NASC100 - Introduction to Naval Science
 CMDT100 Social Responsibility

Term 2

ECEE100 - Introduction to Electrical Engineering
 ECMT100 - Engineering Graphics
 ECMT111 - Engineering Shop I
 NAUT110 - Basic Firefighting and Safety
 MATH140 - Calculus 2 Engine
 CHEM100 - General Chemistry
 LITR101 - Composition and Literature
 PE&A120 - First Aid
 PE&A125 - Self Defense Tactics
 MLOG120 - Vessel Personnel with Designated Security Duties

Term 3

ECES100 - Statics
 ECME105 - Introduction to Marine Engineering II
 ECMT112 - Engineering Shop II
 BUSN101 - Principles of Leadership
 MATH215 - Probability and Statistics for Engineers
 PHYS120 - Physics 2
 PE&A130 - Aquatic Survival

Term 4

ECES201 - Thermodynamics
 ECES211 - Dynamics
 MATH240 - Introduction to Differential Equations and Linear Algebra
 CHEM210 - Selected Topics in Chemistry for Marine Engineers
 HIST200 - Regional Studies
 WRIT110 - Technical & Professional Communications
 WTRF100 - Safety of Life At Sea

Term 5

ECEE200 - Electric Circuits
 ECES220 - Introduction to Materials Engineering
 ECES221 - Introduction to Materials Engineering Laboratory
 ECES230 - Fluid Mechanics
 COMP105 - Computer Programming
 LITR201 - Literature
 NASC200 - Strategic Sealift

Term 6

ESEA210 - Machine Shop at Sea
 ESEA230 - Main Propulsion 1 at Sea
 ESEA240 - Shipboard Systems 1 at Sea
 NSEA245 - Deck Operations

Term 7

BUSN210 - Principles of Economics
 ECEE300 - Electric Machines
 ECES300 - Strength of Materials
 ECES310 - Heat Transfer
 HIST300 – Seminar in U.S. History since 1945
 Free Elective

Term 8

ECDL400 - Basic Tanker Operations-Dangerous Liquids
 ECME400 - Marine Steam Plants and Components
 ECME410 - Marine Steam Plant Simulation
 ECME420 - Internal Combustion Engines
 ECME431 - Marine Refrigeration
 Free Elective

Term 9

ESEA310 - Maintenance Management
 ESEA320 - Naval Arch at Sea
 ESEA330 - Marine Propulsion 2 at Sea
 ESEA335 - Refrigeration at Sea
 ESEA340 - Shipboard Systems 2 at Sea
 ESEA345 - Electrical Engineering at Sea

Term 10

ESEA350 - Marine Propulsion 3 at Sea
 NSEA340 - Maritime Business
 HSEA300 - Humanities Sea Practical

Term 11

ECEE400 - Electronics
 ECME401 - Marine Engineering Management
 ECME440 - Engine Room Resource Management
 ECME450 - Gas Turbines and marine Auxiliary Equipment
 ECME470 - Marine Plant Automation and Controls
 ECNA401 - Naval Architecture for Marine Engineers
 NASC400 - Naval Leadership & Ethics

Term 12

ECES402 - Machine Elements
 ECME460 - Marine Engineering License Seminar
 NAUT420 - Advanced firefighting
 HIST400 - Seminar in National Security Policy and Strategy

Total In-Resident Credits: 145.50
Total Credits: 164.50

Office of the Registrar														
United States Merchant Marine Academy														
Major: Marine Engineering C														
Term 1				Term 2				Term 3						
C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR			
NAUT101 Introduction to Nautical Science	2	2	4.00	3.00	ECDE100 Introduction to Electrical Engineering	3	2	4.00	3.50	ECES100 Statics	3	0	3.00	3.00
ECME101 Introduction to Marine Engineering	3	3	4.50	3.50	ECMT100 Engineering Graphics	0	2	2.00	1.00	ECME105 Introduction to Marine Engineering	4	0	3.00	3.50
MATH101 Calculus I	3	0	3.00	3.00	ECMT111 Engineering Shop I	0	3	3.00	1.00	ECMT112 Engineering Shop II	1	0	3.00	1.00
PHYS110 Physics 1	3	2	4.50	3.00	NAUT110 Basic Firefighting and Safety	2	0	2.00	2.00	BUSN101 Principles of Leadership	1	0	1.00	1.00
PE&A110 Basic Swimming	0	2	2.00	1.00	MATH140 Calculus 2 Engineering	2	0	3.00	3.00	MATH215 Probability & Statistics Engineering	3	0	3.00	3.00
HIST100 History of Sea Power	3	0	3.00	3.00	CHEM100 General Chemistry	3	2	5.00	4.00	PHYS120 Physics 2	3	2	4.50	3.00
NASC100 Introduction to Naval Science	2	0	2.00	2.00	UTR101 Composition & Literature	3	0	3.00	3.00	PE&A130 Aquatic Survival	0	2	2.00	1.00
CMDT100 Social Responsibility				0.00	PE&A120 First Aid	0	2	1.00	0.50					
					PE&A125 Self Defense Tactics	0	2	1.00	0.50					
					MLOG120 VPDSD	0	1	1.00	0.00					
	16	9	23.00	18.50		13	14	25.00	18.50		14	4	19.50	15.50
Term 4				Term 5				Term 6						
C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR			
ECES201 Thermodynamics	3	0	3.00	3.00	ECDE200 Electric Circuits	2	2	3.00	2.50	ESEA210 Machine Shop at Sea			1.00	
ECES211 Dynamics	2	1	2.00	2.50	ECES220 Introduction to Materials Engineering	2	0	2.00	2.00	ESEA230 Marine Propulsion 1 at Sea			2.00	
MATH240 Introduction to Differential Equations	3	0	3.00	3.00	ECES221 Introduction to Materials Engineering	0	2	1.00	0.50	ESEA240 Shipboard Systems 1 at Sea			2.00	
CHEM210 Selected Topics in Chemistry I	2	1	2.00	2.00	ECES230 Fluid Mechanics	3	2	4.00	3.50	NSEA245 Deck Operations			1.00	
HIST200 Regional Studies	3	0	3.00	3.00	COMP105 Computer Programming	0	2	2.00	1.00					
WRIT110 Technical & Professional Communication	2	0	2.00	2.00	UTR201 Literature	3	0	3.00	3.00					
WTRF100 Safety of Life at Sea	1	2	3.00	2.00	NASC200 Strategic Sealift	2	0	3.00	2.00					
	16	4	18.00	17.50		12	8	18.00	14.50		0	0	0.00	6.00
Term 7				Term 8				Term 9						
C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR			
BUSN210 Principles of Economics	3	0	3.00	3.00	ECOL400 Basic Tanker Operations-Damage Control	2	0	2.00	2.00	ESEA310 Maintenance Management			1.00	
ECES300 Electric Machines	3	2	4.00	3.50	ECME400 Marine Steam Plants and Components	3	3	4.50	3.50	ESEA320 Naval Arch at Sea			1.00	
ECES300 Strength of Materials	3	2	4.00	3.50	ECME410 Marine Steam Plant Simulation	0	3	1.50	0.50	ESEA330 Marine Propulsion 2 at Sea			2.50	
ECES310 Heat Transfer	3	0	3.00	3.00	ECME420 Internal Combustion Engines	3	3	4.50	3.50	ESEA335 Refrigeration at Sea			1.00	
HIST300 Seminar in U.S. History since 1607	2	0	2.00	2.00	ECME431 Marine Refrigeration	2	3	3.50	2.50	ESEA340 Shipboard Systems 2 at Sea			2.00	
Free Elective	3	0	3.00	3.00	Free Elective	3	0	3.00	3.00	ESEA345 Electrical Engineering at Sea			1.00	
	17	4	19.00	18.00		13	12	19.00	15.00		0	0	0.00	8.50
Term 10				Term 11				Term 12						
C	L	CHr	CR	C	L	CHr	CR	C	L	CHr	CR			
ESEA350 Marine Propulsion 3 at Sea			2.50	ECDE400 Electronics	2	1	3.00	2.50	ECES402 Machine Elements	2	1	2.00	2.50	
NSEA340 Maritime Business			1.00	ECME401 Marine Engineering Management	1	2	3.00	2.00	ECME460 Marine Engineering License Simulation	1	2	3.00	0.50	
HSEA300 Humanities Sea Practical			1.00	ECME440 Engine Room Resource Management	0	0	4.00	1.00	NAUT420 Advanced Firefighting	1	1	2.00	1.50	
				ECME450 Gas Turbines and marine Auxiliary Engines	3	3	4.50	3.50	HIST400 Seminar in National Security Policy	2	0	2.00	2.00	
				ECME470 Marine Plant Automation and Control	2	3	3.50	2.50	NASC410 Naval Science Senior Seminar	2	0	2.00	1.50	
				ECNA401 Naval Architecture for Marine Engineers	3	0	2.50	2.50	PE&A200 Medical Care Provider	0	2	2.00	1.00	
				NASC400 Naval Leadership & Ethics	2	0	2.00	2.00	Free Elective	3	0	3.00	3.00	
	0	0	0.00	4.50		13	13	22.50	16.00		11	6	16.00	12.00
Total In-Resident Credits											145.50			
Total Credits											164.50			

Department of Mathematics and Science



The Department of Mathematics and Science (M&S) offers required courses in physics, chemistry and mathematics . All Midshipmen take courses in these areas, many in the Fourth Class year when M&S courses comprise approximately one-third of the academic program. The courses are designed to teach the fundamental concepts that Midshipmen will use in later courses in the Engineering and the Marine Transportation curriculums. M&S also offers elective courses in astronomy, computer programming, physics and oceanography. The department provides a strong science background required of all educated people in our world of high technology.

All Midshipmen are required to take Physics 1, Physics 2 and General Chemistry. These courses have a strong laboratory component so that Midshipmen can experience the experimental side of science. M&S maintains general science laboratories that incorporate the recent technologies of microelectronics, lasers and computers. State of the art equipment using PC-based data acquisition is used in the Nuclear, Chemistry, and Physics Laboratories. The department is also responsible for the operation of the Class of '81 Astronomical Observatory. M&S laboratories, offices, and observatory are located in the Fulton/Gibbs building.

The physics and chemistry courses are rigorous. The physics courses are calculus-based. Calculus 1 is a co-requisite for Physics 1 and a prerequisite for Physics 2. Midshipmen majoring in Marine Engineering, Marine Engineering Systems and Marine Engineering and Shipyard Management take Chemistry for Marine Engineers in their Second or Third Class year.

All Midshipmen take Calculus 1, Calculus 2 and Probability & Statistics. In addition, Marine Engineering students take Differential Equations 1; Marine Engineering Systems students take Differential Equations 1, Differential Equations 2 and Calculus 3; and Marine Engineering and Shipyard Management students take Differential Equations 1, Calculus 3, Operations Research 1 and Operations Research 2.

Because mathematics is so important to nearly every area of study at the Academy, all entering Midshipmen take an assessment examination administered by the department. Students who are determined to need review in algebra and precalculus are placed into Precalculus Review which provides Midshipmen with an extra hour of instruction per week.

The department also offers electives that, in addition to providing the opportunity to take courses in areas of study beyond the required curriculum, reflect some of the scholarly and research efforts of the faculty. Examples of recently offered electives are Introduction to Astronomy and the Solar System, Observational Astronomy and Techniques, Introduction to Oceanography, Modern Physics, Fundamentals of Nuclear Physics and Engineering, Introduction to JAVA Programming and Cryptography, and Introduction to Python and Artificial Intelligence. Interested students can also complete a concentration in a particular area of study by taking a three-course sequence of related electives. M&S currently offers the Science from the Ship concentration. Interdepartmental concentrations involving M&S include Cybersecurity and Nuclear Engineering.

Note: For all faculty listings in this section of the catalog, the year when a faculty member joined the Academy staff follows each name. Other information includes the individual's faculty rank, degrees earned, where obtained, professional licenses held, and military affiliation. In a department that includes more than one discipline, the faculty member's area of specialization is indicated.

Department of Mathematics and Science Faculty

Note: For all faculty listings in this section of the catalog, the year when a faculty member joined the Academy staff follows each name. Other information includes the individual's faculty rank, degrees earned, where obtained, professional licenses held, and military affiliation. In a department that includes more than one discipline, the faculty member's area of specialization is indicated. Superscripts used in this listing are:

1. faculty member has received the Academy's Vice Admiral Gordon McLintock Award for Exemplary Leadership
2. faculty member has received the Academy's Sue Alice McNulty Award for Distinguished Teaching.
3. faculty member has received the Captain C.A. Prosser Award for Student Service.
4. faculty member has held command at sea of an unlimited tonnage vessel.

Department Head

Nathaniel J. Cooper (2018)

(Physics)

B.S., M.S., Ph.D., CUNY SPS

Assistant Department Head

Nakeya Williams (2019)

(Mathematics)

Assistant Professor

B.S., Morgan State University

M.S., Ph.D., North Carolina State University

Professors

Joshua S. Friedman (2005)

(Mathematics)

B.S., SUNY Binghamton

M.A., Ph.D., SUNY Stony Brook

Ping Furlan (2011)

(Chemistry)

B.S., University of Science and Technology of China

M.S., Ph.D., University of Connecticut

Michael E. Melcer (1996)

(Chemistry)

Professor

B.S., SUNY Stony Brook

M.S., Ph.D., SUNY College of Environmental Science and Forestry

Alexander Retakh (2010)

(Mathematics)

B.A., NYU

Ph.D., Yale University

Associate Professors

Socrates Boussios (2016)

(Mathematics)

B.S., M.S., SUNY Stony Brook

Ph.D., Columbia

Daniel Fong (2014)

(Mathematics)

B.S., Ph.D., New Jersey Institute of Technology

Stephen Mulware (2023)

(Physics)

B.S./B.A., Kenyatta University

M.S., Ph.D., University of North Texas

Robert J. Ronkese (2013)

(Mathematics)

B.S., Union College

M.S., Northwestern University

Ph.D., University of Delaware

Kimani Stancil (2015)

(Physics)

B.S./B.A., UMBC Ph.D., MIT

Assistant Professors

Paul Serafino (2004)

(Physics)

B.S., Trinity College Ph.D., Yale University

Laboratory Manager, Instructor

Pamela L. Bryant (2020)

(Chemistry, Laboratory Manager)

B.S., M.A., University of Texas Permian Basin

Ph.D., Louisiana State University

Post-Doc, Massachusetts Institute of Technology

Professors Emeriti

Laurence M. Cassar (1967-2002)

(Physics)
B.S., M.S., St. John's University
Ph.D., Adelphi

David Dellwo (1977-2014)

(Mathematics)
B.A., Carroll
B.S., M.S. D.E.S., Columbia

Albert Stwertka (1954-1995)

(Physics)

B.S., Bard College
M.A., Columbia Ph.D., Adelphi

Charles F. Weber (1972-2017)

(Mathematics)
B.S. Manhattan
M.S., Ph.D., New York University

Staff

Christine Zwillick (2001)

Staff Assistant to the Head of Department

Department of Humanities

The Department of Humanities is composed of dedicated scholars who are passionate about encouraging student communication skills, life-long learning, and respectful reflection on the complexities of the human experience-crucial abilities for young people as they move through the increasingly complex and diverse twenty-first century.

Its curriculum forms an integral part of the General Education Program at King's Point, which is required for graduation with the accredited Bachelor of Science degree. Its courses also fulfill key US Navy commissioning requirements necessary for the 8-year service obligation in the US Navy Reserve that all graduates must complete if not commissioning as active duty military officers.

The Department strives to achieve three goals:

Strengthen midshipmen's knowledge of historical events, literary works, diverse traditions and intellectual achievements in world culture and American civilization

Introduce midshipmen to the history and culture of the maritime world, the maritime industry, and the U.S. Navy

Develop college-level analytic and critical thinking skills in oral presentations, reading, research (including information literacy), and writing

It works toward achieving its mission and goals through a variety of required and elective courses, primarily in English and History, but with occasional interdisciplinary courses or ventures into journalism, film, leadership, and other topics.

The Department offers two required introductory writing-intensive English courses with small class sizes, no more than fifteen students. The first, LITR101: Composition & Literature, is a 3-credit course taken in plebe year that primarily emphasizes composition to develop writing skills through close reading and critical analysis. For those with a weak writing background, WRIT100: English Language Lab provides an additional weekly hour of remedial work in grammar and composition. A second 3-credit course, LITR201: Literature, explores various literary genres and ages, and provides additional work on composition. Marine Engineering majors also take the 2-credit WRIT110: Professional & Technical Communications course that introduces them to the sort of writing engineers are expected to do in the maritime industry and military.

The Humanities Department also offers four required history courses linked by the theme of national and maritime security.

HIST100: History of Sea Power is a 3-credit course taken in the Plebe year, which acquaints midshipmen with maritime and naval history, including the role of sea power during the two world wars as well as reinforcing basic writing, critical reading and speaking skills. The 3-credit **HIST200: Regional Studies** course, offered in the 3rd-class year, examines a key strategic geographic region (Europe, East Asia, Latin America, etc.) significant to the economic and national security of the United States. As upperclassmen Midshipmen take two required 2-credit seminar-style courses. The first, **HIST300: Seminar in United States History since 1945**, is offered during the 2nd-class year and focuses on the Cold War by examining important social and political changes of that era including Civil Rights and the creation of the National Security State. During their 1st-class year Midshipmen take **HIST400: Seminar in National Security Strategy & Policy**, which focuses on contemporary global challenges faced by the United States and the policies formulated and tools deployed in order to meet those challenges.

In addition to the traditional on-campus courses, all midshipmen complete the 1-credit **HSEA300: Humanities Sea Practical**. It serves as a companion during the second "Sea Year" sailing period. Students are challenged to think about leadership, their place in the larger maritime world, on ship and on shore, and to explore their relationship with and understanding of other cultures and societies. It encourages global awareness, intellectual self-discovery; and through a series of readings and writing exercises students reflect upon their future role as maritime and military officers and leaders.

The Department also offers a number of electives to Marine Transportation majors in such topics as literature, film, Latin American and East Asian history, ethics, leadership, and maritime and military history, during their senior year. The Department also oversees one-on-one independent studies that are arranged directly between professors and midshipmen, and has supported a number of Kings Point Scholar projects.

The Humanities Department participates in campus cultural issues. It oversees the O'Gara Academic Honor Society, which recognizes the most academically accomplished midshipmen at Kings Point by offering exceptional array of distinguished speakers from the maritime industry, arts, and sciences as well as the opportunity for midshipmen to participate in a cultural enrichment program and take advantage of the fantastic opportunities available in New York City.

Department of Humanities Faculty & Staff

Note: For all faculty listings in this section of the catalog, the year when a faculty member joined the Academy staff follows each name. Other information includes the individual's faculty rank, degrees earned, where obtained, professional licenses held, and military affiliation. In a department that includes more than one discipline, the faculty member's area of specialization is indicated. Superscripts used in this listing are:

1. faculty member has received the Academy's Vice Admiral Gordon McLintock Award for Exemplary Leadership
2. faculty member has received the Academy's Sue Alice McNulty Award for Distinguished Teaching.
3. faculty member has received the Captain C.A. Prosser Award for Student Service.
4. faculty member has held command at sea of an unlimited tonnage vessel.

Department Head

Paul Devlin (2015)

(English)
B.A., St. John's University
M.A., St. John's University
Ph.D., Stony Brook University

M.A., New York University
Ph.D., University of Colorado, Boulder

Yonina Hoffman (2022)

(English)
B.A., West Virginia University
M.A., The Ohio State University
Ph.D., The Ohio State University

Assistant Department Head

Diana Filar (2022)

(English)
B.F.A., Emerson College
M.A., University of New Mexico
Ph.D., Brandeis University

Alicia Maggard (2026)

(History)
B.A., Willamette University
M.A., Brown University
Ph.D., Brown University

Professors

Melanie Ross (2004)

(English)
A.B., Princeton University
M.A., New York University
Ph.D., New York University

Joshua Smith (2003)

(History)
M.A., (Honours), University of St. Andrews
A.S., Maine Maritime Academy
M.A., East Carolina University
Ph.D., University of Maine

Nicholas Misukanis (2026)

(History)
B.A., Morningside College
M.A., Boston College
M.A., University of Maryland
Ph.D., University of Maryland

Instructor

Daniel Irving (2018)

(English)
B.A., Queens College
M.A., Binghamton University
Ph.D., Stony Brook University

Gregory F. Sullivan (2006)

(History)
B.A., University of California, Berkeley
M.A., Yale University
Ph.D., Yale University

Administrative Assistant

Vacant

Jeffrey F. Taffet (2002)

(History)
B.A., Franklin and Marshall University
M.A., Georgetown University
Ph.D., Georgetown University

Professors Emeriti

Jane Pacht Brickman

(History, 1981-2017)
B.A., Queens College
M.A., Ph.D., CUNY Graduate Center

Associate Professors

Susan Comilang (2015)

(English)
B.A., Columbia Union College
M.A., Washington State University
Ph.D., George Washington University

Arthur L. Donovan

(History, 1988-2003)
A.B., Harvard University
M.S., University of Wisconsin
Ph.D., Princeton University

Assistant Professors

Keith Aksel (2023)

(History)
B.A., The Ohio State University

Robert P. Gardella

(History, 1977-2006)
B.A., Rice University
M.S., Ph.D., University of Washington

Laury Magnus

(English, 1981-2022)
B.A., Brooklyn College
M.A., Ph.D., CUNY Graduate Center

Department of Physical Education and Athletics

The importance of the Physical Education and Athletics programs at a federal service academy cannot be overemphasized. Each Midshipman must maintain a healthy lifestyle and appropriate habits, and consistently meet or exceed the level of physical conditioning required to meet USNR commissioning requirements.

Midshipman participation in intramurals, club sports, and intercollegiate sports programs and activities is expected. The Academy's mission, history, and reputation is that of a premier source of future leaders in the commercial maritime industry and armed forces. Leaders must know how to follow and work effectively and collaboratively as part of a team. Competitive sports activities convey life-long lessons on the importance of strategy, tactics, and the importance of preparation in successful outcomes. Good team and leadership skills are the outcome of the fast pace of competitive sports activities.

The department is responsible for ensuring that each Midshipman acquires the skills involved in swimming, aquatic survival, self-defense and first aid. Additional physical education experiences are offered through the Physical Education Activities courses. All Midshipmen annually take an Academy physical fitness test patterned after the U.S. Navy's Physical Readiness Test.

The department additionally provides necessary instruction in ship's medicine. Plebes learn the basics of emergency health care, including cardiopulmonary resuscitation (CPR). An advanced ship's medicine course is offered in the upper-class years, focusing on medical treatments proven effective at sea where comprehensive medical care may be not available.

The athletic program offers 18 varsity team and intramural sports. These teams have been successful at levels ranging from NCAA Division III National Champions to Conference Champions. The varsity teams are:

Fall

Football, Men's Soccer, Men's and Women's Cross Country, Women's Volleyball.

Winter

Men's and Women's Basketball, Wrestling, Men's and Women's Swimming and Diving, Men's and Women's Indoor Track and Field.

Spring

Baseball, Men's and Women's Lacrosse, Men's and Women's Outdoor Track and Field, Men's Tennis.

Club Sports

Hockey, Rugby, Water Polo

Department of Physical Education and Athletics Faculty

Note: For all faculty listings in this section of the catalog, the year when a faculty member joined the Academy staff follows each name. Other information includes the individual's faculty rank, degrees earned, where obtained, professional licenses held, and military affiliation. In a department that includes more than one discipline, the faculty member's area of specialization is indicated. Superscripts used in this listing are:

1. faculty member has received the Academy's Vice Admiral Gordon McLintock Award for Exemplary Leadership
2. faculty member has received the Academy's Sue Alice McNulty Award for Distinguished Teaching.
3. faculty member has received the Captain C.A. Prosser Award for Student Service.
4. faculty member has held command at sea of an unlimited tonnage vessel.

Department Head

Kristofer Schnatz (2019)

B.S., SUNY Maritime College
M.S., Valparaíso University

Professional Faculty

Rob Alfheim (2004)

B.S., Sacred Heart University
M.S., Northern Illinois University

Ryan Bartel (2023)

B.S., The College of New Jersey
M.S., Fairleigh Dickinson University

Louis Bernardi (2018)

B.S., New York Institute of Technology

Daniel Braut (2012)

B.S., Towson University
M.S., California University of Pennsylvania

Beau Bruno (2009)

B.S., Binghamton University
M.S., Fordham University

John Cavanaugh (1980)

B.S., Long Island University- Post (dual degrees)
M.Ed., Long Island University- Post

Jameson Croall (2012)

B.S., Springfield College
M.S., Springfield College

Melinda Eng (2001)

B.S., Hofstra University
M.S., Wagner College

Joseph Guster (2014)

B.S., St. John's University
M.B.A., St. John's University

Daniel Gwyther (2020)

B.S., University of Buffalo
M.A., University of Cambridge

John Kelly Jr. (2024)

B.A., Fordham University
M.S., Fairleigh Dickinson University

James Kikel (2016)

B.S., Springfield College
M.S., Springfield College

Eugene Kobilansky (2022)

B.S., New York University

Kayla Koelbel (2020)

B.S., SUNY Cortland
M.S., SUNY Cortland

LT Johan C. Lopez, USMS (2013)

B.S., CUNY Lehman College
M.S., Southern New Hampshire University

Drew McCarthy (2012)

B.S., SUNY Maritime College
M.A., Stony Brook University

Carlos Mendes (2021)

B.S., Old Dominion University

Maegan Meritz (2016)

B.A., Stony Brook University

Jason Miller (2022)

B.S., Springfield College
M.Ed., Springfield College

Tony Nocera (2023)

B.S., Eastern Connecticut State University
M.S., Northcentral University

Michael Notebaert (2007)

B.S., Ithaca College
M.B.A., Dowling College

Dan Paccione (2022)

B.S., University of Massachusetts

Harrison Passante (2021)

B.S., St. Joseph's

Robert Pryor (2017)

B.S., United States Air Force Academy
M.B.A., College of William & Mary
M.A., University of Colorado at Colorado Springs

William Razzano (2022)

B.S., SUNY Cortland
M.S., Concordia University - St. Paul

Louis Scala (2022)

B.S., Long Island University
M.S., Long Island University

Alexa Shields (2008)

B.S., The College of New Jersey
M.A., Rutgers University

Kyle Simensky (2012)

B.S., SUNY Cortland
M.A., Adelphi University

Salma Tarik (2023)

B.S., Hofstra University
M.S., Mercy College

CDR Sean Tedesco, USMS (2001)

B.S., University of Connecticut
M.B.A., Adelphi University

Daniel Unverzagt (2012)

B.S., Northern Vermont University
M.S., Manhattan College

Library

The Schuyler Otis Bland Memorial Library is the Academy's major information resource center. The library supplies Midshipmen, faculty and staff with a wide range of materials and services, which can also benefit visiting researchers. There is seating for 300 users, including special conference rooms and study areas.

Designed to support the curriculum, the library book collection of over 190,000 volumes provides a broad range of information on the subjects studied at the Academy, with an extensive concentration of information and special collections on maritime subjects, both modern and historical.

Available at the library is a great deal of information in other formats: periodicals, sea charts, magazines and newspapers, research reports, computers, files of engineering data, compact discs, DVDs, CD-ROMs, computerized data bases, and an online public access catalog.

The library has online access to databases in many disciplines, including science, technology, the social sciences, and humanities. As part of its broad role as a resource center, the library also serves as a conference site for Academy programs. The library's premier conference facility, the Crabtree Conference Room, provides a comfortable setting for a wide variety of maritime and scholarly activities attended by Midshipmen, faculty and staff.

Department of Professional Development and Career Services

The Department of Professional Development and Career Services consists of:

Office of Shipboard Training
Office of Career Services

The Shipboard Training Program

All Midshipmen, as an integral part of their professional training, participate in a cooperative educational program during the two periods of their sea year. Training aboard ship is designed to give the Midshipman practical knowledge of the performance and operating characteristics of various classes of vessels, the operating requirements in different trade routes, and labor relations in the ocean shipping industry.

The first sea period lasts approximately 135 days. During this period, the Midshipman is assigned to different types of dry cargo vessels. The Midshipman then returns to the Academy to build on his/her experiences at sea. The second sea period is longer, roughly 265 days. During this period, the Midshipman finishes his/her sea service requirement of 300 days aboard ocean going vessels and completes an internship with a company or organization with involvement in the transportation or marine engineering industry.

Academy Training Representatives assign Midshipmen to vessels, monitor and guide their progress, and maintain liaison between the Midshipmen, the shipping companies, and the Department of Shipboard Training.

The shipboard training program provides Midshipmen with the opportunity to use a ship as a seagoing laboratory. Midshipmen are given a number of courses called the "Sea Project" which, in addition to their shipboard duties, they are required to complete and submit for evaluation and grading. The assignments are carefully designed to ensure that Midshipmen, while aboard ship, apply the knowledge and skills learned in the Academy classrooms and acquire a firm foundation for advanced study when they return to the Academy. In addition to written assignments, Midshipmen take oral and written examinations after returning from sea.

Aboard ship, marine transportation majors are assigned to the vessel's Deck Department, and engineering majors to the Engineering Department. Sea project courses concentrate on subject matter appropriate to the Midshipman's major.

Should a Midshipman, prior to the second sailing period, acquire a definite maritime career goal, the department may arrange a program of shipboard assignments to provide opportunities for specialized experience in the last sailing period.

During the second sailing period, Midshipmen with a strong interest in a career with the sea services of the U.S. Armed Forces or National Oceanographic and Atmospheric Administration (NOAA) may request an assignment aboard a vessel of the U.S. Navy, U.S. Coast Guard, U.S. Army Corps of Engineers or NOAA Corps. Midshipmen may also request an assignment aboard tugs or towing vessels.

Internships

The second sea period includes a two-to six-week internship assignment ashore, depending on the Midshipman's major, to provide the opportunities to observe and participate in the management operations of a maritime, transportation, or engineering related organization. This will enable the Midshipman to acquire concepts of organization, decision-making, operating procedures and proper work ethic. The Midshipman makes his/her own decision regarding where to do the internship. The assignment is for two weeks, except for the Marine Engineering and Shipyard Management majors, whose internship is six weeks long. Depending upon a Midshipman's field of specialty and interest, the Midshipman may be assigned to a shipping company, shipyard, ship repair facility, ship brokerage and chartering firm, stevedoring firm, marine surveyor's office, towing company, port and terminal facility, or a similar enterprise. Optional internship assignments are also available with shore-based commands of the U.S. Armed Forces. Midshipmen are required to complete a written report on their experience, which is submitted to their designated Academy Training Representative for evaluation and grading.

INSP100 - Internship Program - 2 Weeks Credits: 1

This program provides each Midshipman an opportunity to observe the management environment in an Academy mission (maritime, transportation, engineering, government agency, Armed Forces, etc.) related organizations for the periods of two weeks. Ranging from a basic survey to participation in executive, mid- and entry-level management projects, the Midshipman's choice of an internship requires investigation of the organization's background and history; current organizational structure; decision-making processes; operating procedures; and work place ethics. The Midshipman demonstrates in a written report a comprehension and understanding of these factors as well as basic management concepts as applied to the host organization. This internship is an elective and is not required for graduation.

Career Services

The Career Services Office assists Midshipmen with career development starting in their plebe year and continuing until graduation. The Office provides a series of presentations by Academy personnel, alumni and industry partners focusing on obligation-fulfilling careers that also fulfill a Midshipman's personal career goals.

The Office presents two annual career fairs: "Sea Fair" each fall; and "The Shipping-Out Fair" each spring. In addition, off-campus events are arranged, such as tours of shipping companies and industry conferences. There are numerous on-campus career information and recruiting events through the year. When possible, these evening presentations are hosted by a Midshipman liaison who is interested in a career with a specific company. The Department maintains a close relationship with maritime companies, unions and government/military contacts. Up-to-date information is shared with Midshipmen via Intranet or by email. Employment announcements are also posted in the USMMA Alumni Foundation Job Bulletin. The Office assists Midshipmen with application

procedures and other professional correspondence. The Office maintains an open-door policy.

Department of Professional Development and Career Services Faculty

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4. faculty member has held command at sea of an unlimited tonnage vessel.

Department Head

CAPT Ian Jones, USMS (2010)

B.S., U.S. Merchant Marine Academy

MA: American Military University

License: Third Mate of Steam and Motor Vessels of Any Gross Tons, Oceans. Military: LT, USNR

Academy Training Representatives

LT Wong, USMS (2020)

B.S., U.S. Merchant Marine Academy

Career Placement Program Officer

Vacant

Department of Naval Science

The U.S. Navy and America's merchant marine have shared a close, mutually supportive relationship since the Revolutionary War. Today, that relationship is especially vital as merchant ships carry critical raw materials and other necessary cargoes, while naval ships ensure safe and open sea lanes for our nation's ocean commerce.

Graduates of the Academy receive commissions as Ensigns in the Strategic Sealift Officer (SSO) Program U.S. Navy Reserve, unless they apply and are accepted for active duty service in the Navy or apply and are accepted for active duty or reserve service in one of the other U.S. Armed Services.

The mission of the Department of Naval Science is to provide appropriate instruction to prepare Midshipmen for commissions in the U.S. Navy Reserve. This instruction will enable these officers to operate effectively with the Navy in time of peace, national emergency or war, and to perform other tasks and functions as directed by higher authority.

The curriculum focuses on the skills and knowledge graduates will need to serve as officers in the Navy Reserve. All Midshipmen take courses in Strategic Sealift and Leadership and Ethics.

Note: For all faculty listings in this section of the catalog, the year when a faculty member joined the Academy staff follows each name. Other information includes the individual's faculty rank, degrees earned, where obtained, professional licenses held, and military affiliation. In a department that includes more than one discipline, the faculty member's area of specialization is indicated.

Department of the Waterfront



For over 75 years, the United States Merchant Marine Academy Waterfront has set the highest standard for the training of Merchant Mariners and Military Officers. With varsity, instructional, and recreational programs available, there is something to offer every Midshipman. As a result, nearly 40 percent of the student body participates in curricular elective or extra-curricular waterfront programs, making the Yocum Sailing Center one of the most active sites on campus.

To support our curricular educational programs, there are several modern, specially equipped vessels used for professional training in both core and elective programs. The flagship of the Academy fleet is the 176-foot training ship, *T/V KINGS POINTER*, a former NASA booster rocket recovery vessel. The vessel gets underway for routine training throughout the week, and takes part in weekend and weeklong training cruises along the East Coast.

In addition to *T/V KINGS POINTER*, the waterfront operates *T/V LIBERATOR*, a 108-foot former naval training vessel, *T/V ELIZABETH ANN*, a 65-foot tugboat. The waterfront also is home to a fleet of Rigid Inflatable Boats (RIBs), and Guardian Whalers to facilitate waterfront athletics coaching and a Fast Rescue Boat course. The Fast Rescue Course is offered as an elective to upperclassmen with interest in obtaining their Fast Rescue Boat Operator Certificate.

In the extracurricular arena, the Intercollegiate Sailing Team is the most decorated team at the Academy, and has secured itself as one of the more decorated programs in the country. With 17 National Championship Titles, 57 All-Americans, 6 College Sailor of Year, 2 Olympians, and 9 USMMA Athletic Hall of Fame Members, Kings Point Sailing is one of the epicenters for greatness in college sailing. The program has also fostered alumni who have gone on to win National and World Championships, along with an Olympic Silver medal. The Academy fields' teams in seven college sailing disciplines: Open Singlehanded, Women's Singlehanded, Coed Doublehanded, Women's Doublehanded, Coed Team Racing, Women's Team Racing, and Match Racing.

The program competes against nearly 300 collegiate programs throughout the United States, in six conferences, and consistently ranks in the Top-25 teams in the country.

The Varsity Offshore Sailing Team races our larger sailing vessels. Midshipmen regularly compete in intercollegiate offshore events, including day and overnight open races, regularly competing up and down the east coast. During summer break, the team competes in high-profile events as Block Island Race Week, Newport to Bermuda Race, Halifax Race, and New York Yacht Club Race Week. The team competes in the top 6 intercollegiate offshore events each year. Three of these events are held in the Naval Academy's one-design Navy 44's. The Shields Trophy, McMillian Cup, and College Sailing Offshore National Championship. The Offshore program claims 2 College Sailing Offshore National Championship Titles, solidifying them as a dominate Offshore Sailing Program in the country.

The Academy also offers Junior Varsity, recreational, and instructional sailing programs throughout the year. The Kings Point fleet is comprised of keelboats ranging from 20 to 44-feet in length. The fleet is primarily used for the U.S. Sailing Basic Keelboat instructional course. Once certified, midshipmen can sign out boats for recreational sailing on local waters and look to expand their expertise aboard larger cruising vessels.

For Midshipmen interested in competitive rowing, the Kings Point Varsity Rowing Team offers a challenging program of head style races as well as sprint competition. The King's Point rowers train throughout the academic year, with separate fall, winter, and spring seasons. The rowing shells are top of the line, and include two new carbon fiber Hudson USP 4+/x and two new carbon fiber Hudson USP 2x/-. The team also has a state-of-the-art indoor training facility, which includes rowing tanks, fully equipped weight room, erg machines, and erg bikes. Competing in novice, heavyweight, and lightweight events for both men and women, the team travels annually to regattas such as the Head of the Charles and the Dad Vail National Championship.

The USMMA Power Squadron provides a direct supplement to the professional training in the educational programs. Ship handling, navigation, and engineering skills are sharpened, as the Power Squadron gets underway for training daily. Several smaller vessels serve as recreational and fishing vessels for the program. Each vessel is manned, maintained and commanded by Midshipmen who get underway each weekend for training, goodwill cruises, VIP cruises, fishing, and program support throughout the region.

Department of Waterfront Staff

Department Head Director

Waterfront Operations and Training
Vacant

Administration Deputy Director Waterfront Operations and Training

Scott McCormick(2016)

B.S. Marine Transportation; Ship Operations and Technologies
United States Merchant Marine Academy – 2010
Master of Unlimited Tonnage Vessels Upon Oceans
Master of Towing Vessels Upon Oceans

Director of Varsity Programs

Rick Dominique (1999)

B.S. Marine Transportation SUNY Maritime College
– 1993

Director of Power Squadron

Robert Asma (1997)

USCG Ret.
100 Ton Limited Masters

Office Manager

Mary Hall (2001)

B.S. Business
St. Johns University – 1985

Training Vessels Master

Derek Schubert (2019)

B.S. Marine Transportation
SUNY Maritime College – 2005
Master of Unlimited Tonnage Vessels Upon Oceans

Chief Mate

Harris Papson (2022)

B.S. Marine Transportation
SUNY Maritime College – 2011
Master of Unlimited Tonnage Vessels Upon Oceans

Chief Engineer

Robert Gorgy (2019)

B.S. Marine Engineering
SUNY Maritime College – 2009
Chief Engineer of Limited Horsepower

Waterfront Operations and Training

Intercollegiate Sailing, Head Coach

Michael McBrien (2019)

B.S. Biology; Minors in Mathematics and Philosophy
Roger William University – 2018

Intercollegiate Sailing, Assistant Coach

Assistant Director of External Relations

Brendan Feeney (2020)

B.S. Finance
University of South Florida – 2018

Offshore Sailing, Head Coach

Kenneth Luczynski(2012)

B.S. Political Science and Economics Northeastern
University – 1990

Offshore Sailing, Assistant Coach

Elizabeth Shaw O'Toole (2022)

B.S. Business Administration Acadia University –
2007

Rowing, Head Coach

Derek Hartwick (2004)

B.S. Physical Education
University of Western Ontario – 1984

Rowing, Assistant Coach

Jackie Kleinhans (2019)

M.S. Exercise and Sports Studies Smith College –
2016

Maintenance Head Marine Foreman

John Casey (1994)

B.A. Environment Science
Florida Institute of Technology - 1985

Marine Maintenance

George Link (2018)

B.F.A. Photography LIU Post - 1997
Chip Lowe (1998)
B.A. Architecture
New York Tech – 1984

Course Descriptions

Marine Transportation			
Subject	Number	Title	Course Description
BUSN	101	Principles of Leadership	This course is designed to introduce midshipman to the fundamental principles of leadership as it is applied in the maritime environment. It is intended to provide students with: (1) an understanding of the nature of leadership and the roles of a leader and a follower (2) an appreciation of the attributes, characteristics, actions and practices of exemplary leaders, and (3) comprehension of the distinctions between leadership and management. The objective is to provide midshipmen with a foundation for further study of maritime leadership and management. This course, in combination with BUSN201, is designed to meet the Leadership and Managerial Skills requirements of 46 CFR Part 11 and the Use of Leadership and Managerial Skills competence of Table A-II/2 and A-III/2 of the STCW Code, as amended.
BUSN	110	The Business of Transportation	This is an introductory course that is intended to provide an overview of the transportation business, with emphasis on maritime shipping. Topics include the significance of marine transportation, government agencies, tramp shipping, liner service, the passenger cruise business, vessel management, cargo documentation, terminal operations, ship husbandry, bunkering procedures, the functioning of the various segments of a shipping company operation, and current issues facing the industry. This is a required undergraduate course designed to complete the Marine Engineering / Marine Transportation degree.
BUSN	201	MarLeader Management	This course enhances and further develops midshipman leadership and management skills as they are applied in the maritime environment. It provides students with the knowledge and ability to implement: (1) the attributes, characteristics, actions, and practices of exemplary leaders; (2) effective shipboard personnel management and training; (3) relevant maritime conventions, national legislation, and recommendations; (4) applicable task and workload management principles; (5) effective resource management; (6) appropriate decision-making techniques; and (7) standard operation procedures. The objective is to enhance midshipman knowledge, understanding, and proficiency concerning management level control of the operation of a vessel and the care for personnel on board. This course, in combination with BUSN101, is to meet the Leadership and Managerial Skills requirements of 46 CFR Part II and the Table A-II/2 and A-III/2 of the STCW Code, as amended.

BUSN	210	Principles of Economics	This course is intended to cover the scope and method of economics. Topics covered include: allocative mechanisms and economic systems; supply and demand analysis; pricing and resource allocation under various market conditions; cost curve analysis; national income accounting; theory of income determination; fiscal policy; money and banking; and monetary policy.
BUSN	230	Principles of Management	A comprehensive course designed to explore the world of a manager with emphasis on the principles and practices of management. This course focuses on the managerial functions of leading, planning, controlling, staffing, directing, and motivating individuals and workgroups. The objective is to enhance midshipman knowledge and thinking about the workings of organizations and the relevance of management concepts in preparation for successful careers.
BUSN	300	Fundamentals of Busn Law	This is a comprehensive course designed to provide a foundation in the theories and aspects of law and their application in the business and international community. It explores the origin and enactment of laws; business and social trends with focus on specific laws impacting the transportation and maritime industry; and roles of the various branches of government and agencies in regulating and enforcing laws in a business environment.
BUSN	310	Accounting and Finance	This course is designed to introduce significant financial accounting topics including financial reports (balance sheets, income statements and cash flow statements), inventory, depreciation, and ration analysis as well as corporate finance topics including time value of money, capital budgeting and financial planning.
BUSN	400	Marine Insurance	Marine Insurance
BUSN	410	Marketing	This course examines the role of marketing from the perspective of a marketing manager who needs knowledge of customer/consumer behavior in order to develop, evaluate, and implement effective strategies intended to influence those behaviors to achieve the firm's objective. Among the topics covered are: market research and analysis, consumer behavior, marketing strategies, distribution, and pricing. Special emphasis will be given to marketing services of transportation companies. A weekly lab session provides practical exercises.

BUSN	420	Maritime Economics	This is an introductory course in shipping market economics. Major topics include: principles of maritime trade, seaborne trade and transport systems, shipping market organizations, the shipping cycle, supply and demand, freight rate mechanisms, dry bulk shipping, tanker shipping, container shipping, risk management, shipping company economics, ship financing, ship building, and scrapping, and the economic impact of regulations
BUSN	430	Admiralty&Intl law of the Sea	The course builds on the foundation of business law presented in course BUSN 300. The basic principles of maritime law, which are significant for mariners and future leaders in the shore side marine transportation industry, are studied in greater depth. Topics include: maritime torts and contracts, rights of harbor workers and seamen, wrongful death, carriage of goods by sea, services and products, and salvage. The second component of the course explores the field of International law of the Sea.
BUSN	440	International Business	This is a required course for all deck majors. This course examines the fundamental concepts of international business. Topics include doing business in different national economic, political and cultural milieus, the role of inter-governmental organizations, and management issues associated with an international business enterprise.
BUSN	445	Liner Shipping	Liner Shipping
BUSN	450	Economic Geography	Economic Geography
BUSN	470	Sales & Entrepreneurship	Sales & Entrepreneurship
MHAZ	410	ICS-OSR	ICS-OSR
MHAZ	411	Liquid Cargo Systems	Liquid Cargo Systems
MHAZ	412	Adv Oil & Chemical Liq Cargo	Adv Oil & Chemical Liq Cargo
MHAZ	413	Advanced Liquefied Gas	Advanced Liquefied Gas
MLOG	120	VSL PERS w/ Secty Duties	This course is part of the Academy's U.S. Coast Guard (USCG)-approved International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) program and is required of all midshipmen in all majors. It provides the knowledge required for vessel personnel with designated security duties in connection with a Vessel Security Plan (VSP) to perform their duties in accordance with the requirements of the Maritime Transportation Security Act (MTSA) of 2002, Chapter XI-2 of the International Convention for the Safety of Life at Sea (SOLAS 74) as amended, the International Ship and Port Facility Security Code (ISPS Code), the U.S. Coast Guard regulations contained in 33 Code of Federal Regulations (CFR) Chapter 1 Subchapter H, and Section A- VI/6 of the STCW Code as amended. Successful completion of the course leads to USCG/STCW VPDS endorsement. The course must be completed before the first Sea Year period.

MLOG	200	Integrated Logistics Mgmt	This course examines the theory and practice of logistics management in the modern business environment, with particular attention to parallels between business and military logistics. It is designed to expose midshipmen to the major functions of logistics management and to the tools and techniques that are employed in the analysis of logistics systems. Emphasis is on system optimization for the purpose of achieving competitive advantage, cost reduction, and customer satisfaction.
MLOG	310	VslSectyOffcr/Co SectyOffcr	This course is intended to provide the knowledge required for personnel who are assigned responsibilities as Vessel Security Officer(VSO) or Company Security(CSO) to perform thier duties in accordance with the requirements of the Maritime Transportation Security Act of 2002, Chapter XI-2 of SOLAS 74 as amended, the IMP ISPS Code, and U.S. Coast Guard regulations contained in 33 CFR Chapter I Subchapter H. This course aim is also to meet the mandatory minimum requirements for knowledge, understanding and proficiency in Table A-VI/5 of the STCW Code and the training requirements in 33 CFR Part 104.
MLOG	400	Port and Terminal Operations	The course provides in-depth analysis of marine intermodal and bulk (dry and liquid) terminal operations. Topics include functions of intermodal and bulk terminals, container and bulk cargo handling equipment and systems, container and bulk vessel/yard/gate operations, terminal information systems, documentation, port governance, port development, and labor-management relations. In addition, the course will discuss issues related to trends in liner and bulk shipping, impact of increasing vessel size, terminal productivity, infrastructure constraints, automation, and information technology. Emphasis is on how to achieve operational efficiency and system optimization.
MLOG	425	Maritime Secty Rsrch Seminar	This course is designed to provide midshipmen with an understanding of current issues related to maritime, port, and intermodal transportation security and the opportunity to apply their maritime and intermodal expertise to current problems in maritime security. Topics include vessel security, facility security, terrorism, Weapons of Mass Destruction, cargo theft, port and terminal facility security, contraband smuggling, organized crime, piracy, and related subjects. Emphasis is placed on counter terrorism in the maritime and intermodal environment. The primary focus of the seminar is a research project that will engage midshipmen in formulating strategies and approaches to address a current ¿real-world¿ security problem.

MLOG	430	Chartering and Brokerage	This Course will provide a basic understanding of how charter parties are constructed, how chartering decisions are made, how vessel characteristics and voyages are analyzed, the functions of brokers and agents and vessel sales and purchases. This course is required for all senior Marine Transportation majors. This course may be taken as an elective by any student in their junior or senior year.
MLOG	434	Marine Corps Jr Off Prct	Marine Corps Junior Officer Practicum
MLOG	450	Capstone Project Seminar	A capstone course structured to integrate the lessons learned in prior course work, internships, and the sea year experience. Through case studies and applied research projects dealing with current challenges provided by industry, government, and military organizations, the seminar provides midshipmen with the opportunity to apply their knowledge and skills in solving "real-world" problems in logistics management, maritime security, and port operations. Midshipmen regularly interact with, and make presentations to, officers of organizations providing issues and problems.
NAUT	101	Intro to Nautical Science	This first course in nautical science has two objectives: students successfully completing this course will be introduced to the basic knowledge and skills of nautical science that are required of all deck officers in the merchant marine; and to provide for formal instruction and assessment in many of the common and deck-specific competency requirements for International Maritime Organization (IMO) Able Seafarer (Deck) Knowledge, Understanding, and Proficiency requirements. Topics covered in nautical science include the economic role of the merchant marine, merchant ship types, shipboard terms, dimensions, personnel organization, nomenclature of ships, mooring with lines, mooring with ground tackle and practical labs in knots, splices, hitches for the bosun chair and stage, and crane operations.
NAUT	110	Basic Firefighting & Safety	This course provides the student with the knowledge and experience to respond to shipboard fires and emergencies. The student will be instructed in the behavior of fire, fire prevention and suppression techniques, and associated extinguishment systems found aboard various types of vessels including container ships, break bulk, oil tanker, chemical tanker, LNG, RO-RO and passenger vessels. Students will be shown how to use fire prevention and suppression equipment properly and effectively in dealing with fires and hostile environments. Students will also be instructed in the safe use of respirators, the subject of fit testing of respirators, and the use of the SCBA in firefighting. This course is designed to give the student the necessary skills to minimize the risk of fire and maintain a state of readiness for combating shipboard fires. This course also includes a one day training exercise at an US Coast Guard approved Shipboard Fire Training Facility. This course is required of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers and includes the 2010 Amendments. All competencies must be successfully completed. Additionally, successful completion of this course is a requirement for graduation.

NAUT	120	Terrestrial Navigation 1	This course is designed to teach the student the technical and practical concepts of Terrestrial Navigation. Areas covered include terrestrial coordinates, nautical charts, navigation publications, piloting, navigation aids, compass corrections, and the use of sailings to determine rhumb line course and distances. Practical chart work laboratories and a laboratory on an Academy training vessel provide extensive practice. This course is required of all Deck Midshipmen and is offered in the Second Term of Fourth Class Year.
NAUT	125	Terrestrial Navigation 2	This course builds upon the material covered in Terrestrial Navigation 1. Topics include a more in-depth analysis of the earth's magnetic field, the ship's magnetic field, magnetic compass adjustment and the sailings. Propeller slip, ocean voyage planning, tide and tidal current theory, current sailing and major ocean circulation are also introduced. This course contains a Standards of Training, Certification and Watch-keeping for Seafarers (STCW) Knowledge, Understanding and Proficiency (KUP) concerning the knowledge of the principles of magnetic compasses and is required of all Deck Midshipmen. This course is required for all Deck Midshipmen and is offered in the Third Term, Fourth Class Year.
NAUT	130	Intro to Navigation Law	This required course is an introductory study of the various statutes which govern the operation of water craft subject to U.S. jurisdiction. Emphasis is placed on the International Navigational Rules Act of 1977 (which implemented the 72COLREGS, the regulations resulting from the 1972 Convention on International Regulations for Preventing Collisions at Sea). This course is required of all Deck Midshipmen and is offered the Third Term of Fourth Class Year for B-split sea year training assignees and First Term Third Class Year for A-split assignees.
NAUT	140	Maritime Communications	This 4-credit course is designed to satisfy the requirements needed to qualify for an STCW endorsement as a Global Maritime Distress and Safety System Radio Operator. Current regulations allow a graduating midshipman who passes the course to qualify for a waiver from having to pass a separate FCC GMDSS Radio Operator license exam. After successful course completion, a midshipman will be able to competently operate the radio communications equipment required onboard GMDSS-compliant vessels. Non-GMDSS communications systems (signal flags and Morse Code by flashing light) will also be addressed in this course.

NAUT	160	Ship Construction & Stability	To introduce and present information that will enable the Deck Officer to gain a working knowledge of ship construction and stability. This includes utilizing available data to make stability calculations, and stow the ship safely in accordance with accepted practice and regulation. Each midshipman will spend approximately two weeks studying the Ship Construction component of this course, and approximately eleven weeks studying the Stability component. This course is presented to all Deck Midshipmen in the Fourth Class Year.
NAUT	210	Integrated Navigation 1	This course integrates theoretical and practical applications of radar and ARPA within the context of safe visual underway navigation. In particular, midshipmen will learn to adapt system displays to various conditions, understand and apply sensor inputs to radar, analyze digital and graphic information on radar & Automatic Radar Plotting Aid (ARPA), perform radar transfer plotting, acquire and access contact information, and practice contact management using trial maneuver functions and AIS information. Midshipmen will also master the basics of electronic navigation and vessel maneuvering, as well as steering and autopilot control, following helm orders, and responding to operational alarms. Radar & ARPA competencies from Standards of Training, Certification and Watch-keeping for Seafarers (STCW), as amended, are satisfied by this course. Successful completion of IN1 and Radar Certification permits a Radar Observer certificate and an ARPA certificate to be awarded upon graduation. Successful completion of this course is required for assignment to sea.
NAUT	215	Integrated Navigation 2	This course consists of five general training areas: Electronic navigation, Rating Forming Part of a Navigational Watch (RFPNW) review, Shiphandling, Radar navigation & target management, and Electronic Chart Display and Information System (ECDIS). It integrates theoretical and practical applications of ECDIS within the contexts of safe visual underway navigation. Midshipmen will learn to adapt system displays to various conditions, analyze digital and graphic chart information, understand and apply sensor inputs, and access contact information using the Automatic Identification System (AIS) and Automatic Radar Plotting Aid (ARPA). Midshipmen will master additional aspects of electronic navigation, including radar navigation, echo sounder, compass and steering systems, and also vessel maneuvering, responses to Man Overboard, watchkeeping principles and application of Navigation Rules. Ship positioning and autopilot control competencies from Standards of Training, Certification and Watch-keeping for Seafarers (STCW) are satisfied by this course. Successful completion of this course satisfies STCW training requirements for the operational use of ECDIS, as amended, and permits a US Coast Guard (USCG) certificate to be awarded upon graduation. Successful completion is required for assignment to the second sea term.

This course is designed to satisfy the cargo course requirements of 46 C.F.R. § 13.409 Qualifications for Tankerman-Assistant (DL); AND the cargo course requirements of 46 C.F.R. § 13.209 towards an endorsement as Tankerman-PIC (DL); AND the cargo course requirements of 46 C.F.R. § 13.309 towards an endorsement as Tankerman-PIC (Barge) (DL); AND to meet the familiarization of oil and chemical tanker training and qualification requirements for specialized basic training of personnel serving on oil and chemical tankers as specified in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), in Section A-V/1-1 and Table A-V/1-1 of the STCW Code, as amended, for the Minimum Standard of Competence in Basic Training for Oil and Chemical Tanker Cargo Operations. In addition, this course will satisfy the Tankerman requirements for the competence requirements of Table A-V/1-1-2 and Table A-V/1-1-3 of the STCW Code, as amended, for the Minimum Standards of Competence in Advanced Training for Oil Tanker and Chemical Tanker Cargo Operations; PROVIDED evidence of 90 days of sea service in the deck department of one or more tank vessels, excepting the following limitations for: Tankerman-PIC (Barge) (DL) endorsement shall be Limited to Non-Self Propelled Vessels.

This course reflects the most current regulatory requirements affecting the tanker industry as well as safe industry practice found in various fleet manuals, trade publications and manufacturers' manuals. This course uses a combination of classroom lectures and practical demonstrations using laboratory equipment, such as the liquid cargo/ballast-handling simulator. Successful completion of this course is a prerequisite to assignment aboard an oil or chemical tanker. At the conclusion of NAUT220 Liquid Cargo Operations, Midshipmen will be eligible for the United States Coast Guard national endorsement on the Merchant Mariners Credential (MMC) as a Tankerman-Assist (DL), with no further training or service. Completion of this course along with the required sea time and onboard cargo transfer operations during the sea year will satisfy the requirements of the federal regulations leading to the United States Coast Guards national endorsement on the Merchant Mariners Credential (MMC) as a Tankerman, Person-in-Charge PIC (DL).

NAUT	225	Celestial Navigation	This required course offers an introduction to the study of celestial bodies, their locations and apparent motion relative to an observer on Earth, their ephemera elements of the celestial sphere, concepts and use of time including predictions of celestial phenomena. The course will encompass celestial theory derived from qualitative and quantitative analysis of the combined coordinate systems for reductions to celestial lines of position. Celestial observations will be used to determine compass error. Studies will also involve practical application through use of the sextant, azimuth ring, alidade, and other standard shipboard equipment and publications. This course is required of all Deck Midshipmen and is offered in the Third Term of Third Class Year for A-split sea year training assignees, and the Second Term of Third Class Year for B-split sea year training assignees, and the First Term of Second Class Year for C-split sea year training assignees.
NAUT	230	Navigation Law	This required course is an in-depth study of the various statutes governing the operation of watercraft subject to U.S. jurisdiction. Particular emphasis is placed on both the International Navigational Rules Act of 1977 (which implemented the 72COLREGS, the regulations resulting from the 1972 Convention on International Regulations for Preventing Collisions at Sea) and the Inland Navigational Rules Act of 1980 (which implemented the new unified Inland Rules of the Road presently applicable on the navigable water of the United States). Also discussed are the underlying legal concepts and constitutional issues associated with both international and domestic navigation law as pertains to the American mariner. This course is required of all Deck Midshipmen and is offered in the Third Term of Third Class Year for A-split sea year training assignees and the Second term of Second Class Year for B-split sea year training assignees.

NAUT	240	Meteorology	This required course will cover the principles of modern meteorology as is applicable to the marine environment and global transportation and logistics. The course encompasses the following: the earth-atmosphere system; weather elements; atmospheric thermodynamics; wind systems; cyclones and anticyclones, air masses, fronts, and middle-latitude cyclones; violent local storms; tropical storms; the synoptic weather map; weather service for merchant shipping; weather forecasting; ocean waves; sea ice and ice accretion; weather map construction and analysis; optimum ship routing utilizing the prevailing and projected weather conditions to advantage; weather routing to avoid adverse conditions; practice of practical shipboard reporting procedures. As transportation systems ashore and at sea are weather sensitive, this course will also provide a fundamental understanding of atmospheric phenomena having impact on the overall logistical process. This includes topics such as tornadoes, supercells, precipitation, humidity and temperature patterns that are important in the management of global transportation and logistical systems both ashore and at sea. This course is required of all Deck Midshipmen and is offered in the First Term of Second Class Year for A-split sea year training assignees, the Second Term of Third Class Year for B-split sea year training assignees, and either the Second Term of Second Class Year for C-split Marine Transportation sea year training assignees or the First Term of Third class Year for C-split Maritime Logistics and Security sea year training assignees.
NAUT	250	Dry Cargo Operations	This course will provide the Midshipmen with the knowledge of proper cargo handling and stowage on board vessels. This knowledge is essential for the stability of vessels and protection of cargo during heavy weather at sea. Topics will include safe cargo operations, certification of cargo gear, stresses on cargo gear, mathematical calculations of safe and efficient cargo stowage, and prevention of moisture damage due to cargo and ship sweat. In addition this course will examine ship stability and trim and practical applications of these principles in the loading of vessels carrying break-bulk, bulk, and container cargoes. A container loading project will be required to be completed involving computing of stowage, trim, Transverse Center of Gravity (KG), Metacentric Height (GM) and Longitudinal Center of Gravity (LCG).
NAUT	270	Maritime Comms-Lower Level	This course is the first course in the Maritime Communications course structure which consist of two in-residence courses and a sea project. These courses and the sea project are designed to provide the student, the knowledge of the proper protocols (procedures and policies) to effectively communicate within the maritime environment using both Global Maritime Distress and Safety System (GMDSS) and Non-GMDSS communications systems.
NAUT	300	Fast Rescue Boat	Fast Rescue Boat
NAUT	305	Pilot	Pilot

NAUT	310	Integrated Navigation 3	This required course applies skills formally developed and assessed in the first two levels of Integrated Navigation, and adds several more advanced skills, especially pertaining to ship handling and thruster control. This course applies a high degree of problem solving, detection of ambiguous or conflicting information, risk assessment, decision making and determination of solo watchstanding limitations in a variety of demanding conditions and situations. Situational awareness now encompasses dynamics of watchstanding. Human factors and cognitive processes of solo watchstanding are applied to case studies and exercise analysis. Following in-depth simulation-based practice, the desired training outcome is for each student to satisfy the assessment criteria of a final underway scenario of interacting ownships in which the safety of navigation is maintained amidst subtle yet critical ambiguities between the visual scene and instrument data, where it is reasonable nonetheless to maintain a solo bridge watch, and where there is the possibility of an emergency response prior to augmentation of the bridge watch. This course is required of all Midshipmen and is offered during the First term of the First Class year for A-split sea year training assignees and Third Term of Second Class year for B-split assignees.
NAUT	330	Maritime Regulatory Envir	This required course will cover knowledge and practical understanding of the multitude of international and domestic conventions, laws, regulations, policies, and best practices affecting the transportation of persons and cargo by sea. As required by the STCW, 1978< as amended by the 2010 Manila Amendments, the OICNW must have a "working knowledge of and be able to monitor compliance" with various international and domestic conventions, codes, laws, and regulations. This knowledge is essential for the deck officer in a highly regulated environment. Topics will include safety of life at sea, the law of the sea, the marine environment, Watchkeeping, liability and compensation, and the Maritime Labor Convention. This course is required of all Deck Midshipmen and is offered in the Third Term of Second Class Year for B-split sea year training assignees and the First Term of First Class Year for A-split sea year training assignees.

NAUT	400	License Seminar	Exam, by means of review, problem solving and examination. Topics that will be reviewed and examined include seamanship, cargo handling and stowage, meteorology/oceanography, navigation theory, ship construction terminology and navigation law. Types of navigation problems that will be review include computing and plotting lines of position (visual bearings, radar, meridian transit, Polaris, sun lines and star lines), sailings (parallel, mid-latitude, Mercator, and great circle), computing time of meridian transit and sunrise/set, tide and tidal current calculations, and determination of compass error by terrestrial and celestial means (bearings, azimuth, amplitude, Polaris). This course is required of all First Class deck Midshipmen prior to the United States Coast Guard License Exam and is offered in the Second Term of First Class Year.
NAUT	410	Costal & Inland Vessel Mgt	This course introduces the maritime student to the nature and operations of companies that operate vessels within the littoral zone of the United States and the environment in which they operate. This includes tug and towing companies, barge companies and passenger vessel operators, port authorities, government and non-government agencies, trade associations, labor organizations and other groups that control and influences this significant segment of the maritime industry. Present day industry issues and concerns will be discussed. The course will also look at equivalent working environments in other parts of the world.
NAUT	411	Liquid Cargo Systems	This Course is designed to prepare the student to safely and efficiently operate an inert gas system and conduct a crude oil washing operation on a modern tanker. This is accomplished by covering the necessary theoretical and practical details of inert gas system operation, crude oil washing operations and related tanker safety issues. The Subject matter presented in the course reflects current regulatory requirements as well as industry best-practices involving the use of these systems. This course adheres to the IMO recommendations for training of personnel in the subject areas. The use and practice of liquid cargo loading software will also be instructed upon, and demonstrated. The topics are covered through a combination of classroom lectures, practical demonstrations, field trips and/or simulated operations.

NAUT	412	Adv Oil & Chemical Liq Cargo	This elective course is designed to meet the advanced level educational training requirements for oil and chemical tanker cargo operations. The included training is required of any and all persons with immediate responsibility for loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo-related operations aboard a liquid cargo carrier in international service. The course meets the requirements for specialized educational training as specified in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, (STCW) and the 2010 amendments of STCW, Regulation V/1-1, Section A-V/1-1, Table A-V/1-1-2, and Table A-V/1-1-3.
NAUT	413	Advanced Liquefied Gas	This elective course is designed to meet the basic and advanced level training for liquefied gas tanker cargo operations. The included training is required of any and all persons with immediate responsibility for loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo-related operations aboard a liquid gas cargo carrier. Along with satisfying the cargo training requirement set forth in Qualifications for Tankerman Person-In-Charge of Transfers of Liquid Gas, 46 C.F.R. 13.209, the course will also meet the requirements for specialized training as specified in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), as amended 2010, for Regulation V/1-2, Section A-V/1-2, Table A-V/1-2-1 of the STCW Code for the Minimum Standard of Competence in Basic Training for Liquefied Gas Tanker Cargo Operations; AND for Regulation V/1-2, Section A-V/1-2, Table A-V/1-2-2 of the STCW Code for the Minimum Standard of competence in Advance Training for Liquefied Gas Tanker Cargo Operations
NAUT	414	Low Flashpoint Fuel Ops	Low Flashpoint Fuel Ops
NAUT	415	ICS-OSR	ICS-OSR
NAUT	420	Advanced Firefighting	This course will cover the organizing and training of fire parties and controlling fire-fighting operations aboard ships including tank vessels. The course will address the fire detection and firefighting equipment aboard ships and the investigation of incidences concerning fires. The course is designed to prepare the student to serve as On Scene Leader at a shipboard fire. This is an STCW course required as part of USCG Licensing and includes the 2010 STCW Manila Amendments. All competencies must be successfully completed. This course also includes a 1 day training exercise at an approved US Coast Guard Shipboard Fire Training Facility.
NAUT	430	LNG Fuel	Combined Basic & Advanced Low Flash Point Fuel Operations (IGF Code / LNG Fuel)
NAUT	450	Advanced Meteorology	Advanced Meteorology

NAUT	460	Bridge Resource Mngmt	This course is required for all deck Midshipmen and is taken after completion of all other courses in the curriculum related to watch keeping duties and the midshipman has completed all of the required at-sea navigation training. The course will allow for the practice, demonstration and assessment of watch keeping skills and will challenge the student's decision making abilities, passage planning skills, and bridge team management techniques. The course is taught utilizing full mission bridge simulation technology and consists of lecture, pre-briefs, and simulated shipboard underway laboratory hours with comprehensive debriefs. It is in compliance with the 2010 Manila Amendments to the STCW Code. It is USCG-approved for Midshipmen to earn 30 days sea service. The course is taught in a 52-hour format consisting of 13 lecture hours and a total of 39 laboratory hours, incorporating laboratory passage planning time of 1 hour per week prior to each simulation scenario. This course is required of all Midshipmen and is offered during the First Term of the First Class year for B-split sea year training assignees and Second Term of First Class year for A-split assignees.
NAUT	470	Maritime Comms Upper Level	Maritime Comms Upper Level
NAUT		Advanced Liquefied Gas	This course is designed to meet the advanced level training for liquefied gas tanker cargo operations. The included training is required of any and all persons with immediate responsibility for loading, discharging, care in transit, handling of cargo, tank cleaning or other cargo-related operations aboard a liquid gas cargo carrier. Along with satisfying the cargo training requirement set forth in qualifications for Tankerman Person-In-Charge of Transfers of Liquid Gas, 46 C.F.R. 13.209, the course will also meet the requirements for specialized training as specified in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, (STCW) and the 2010 amendments of STCW, Regulation V/1-2, Section A-V/1-2, Table A-V/1-2-2.
MSEA	412	Intro to Military Sealift Comm	Intro to Military Sealift Comm
MWTR	410	Costal & Inland Vs Mgt	Costal & Inland Vs Mgt
MWTR	412	Towing & Sm Passenger Vsl Op L	Towing and Small Passenger Vessel Operations - the objective of this elective course is for midshipmen to acquire the knowledge and practices of seamanship necessary to successfully perform the duties of a ship's licensed towing officer. In addition to basic seamanship subjects, advanced topics such as tugboat handling and the use of tugs are incorporated into course lecture and lab activities. Small Passenger Vessel maneuvering and operations are also covered. This course will be offered to all deck-officer endorsement candidate midshipmen interested in this field of Seamanship.

Marine Engineering

Subject	Number	Title	Course Description
ECDL	400	Basic Tanker Ops-Danger Liq	This course is designed to cover the material required by 46 CFR 13.121(e) in order to meet the U.S. Coast Guard course requirements for the endorsement of Tankerman-Assistant(DL). The course topics will include: oil & chemical properties and characteristics, international & domestic pollution conventions and regulations, petroleum hazards, enclosed space entry, tanker cargo systems, cargo operations, cargo tank inerting, cargo tank gas freeing, crude oil washing systems and vapor control systems.
ECEE	100	Intro to Electrical Engineering	This course covers the electrical principles necessary for understanding the electrical power system operation, testing, maintenance, and troubleshooting procedures practiced aboard ships. It develops the basic understanding of electrical machines, batteries, controls, and protection. This course is a required course to meet the graduation requirement for all three of the majors in Marine Engineering. The course also prepares the plebes for their required courses in electrical engineering in the second through the fourth year of their studies at the academy and for the USCG license examination.
ECEE	200	Electric Circuits	Electric circuits; Kirchhoff's Law; series and parallel circuits; nodal and mesh analysis; linearity and network theorems; capacitance and inductance current voltage; phasor representation of sine waves; impedance and AC nodal and mesh analysis; real, reactive and apparent power.
ECEE	300	Electric Machines	Theory, analysis and applications of motor and generator actions, transformers and their operation, AC motors (three-phase and single-phase), stepper motors, synchronous motors and generators, DC motors and generators, control systems, discrete process control, PLC's, power electronic converts, and AC and DC motor drives. Correct procedures for the operation of marine electric plant and electric machinery design considerations are stressed.
ECEE	400	Electronics	Theory, analysis, design and applications of electric circuits. Diodes and diodes circuits, BJT and FET transistors, DC Biasing and AC analysis. Logic gates, Boolean algebra, Karnaugh maps, Flip-flops, counters, registers. Computer construction and operation. Elements of feedback, operational amplifiers, active filters. Design of electronic devices and systems.

ECEM	400	Marine Engineering Mngmt	This course introduces the basic management and economic principles and regulatory requirements in the operation of a ship which are carried out on board and from the shore office. Topics include functions and responsibilities of the crew and shore staff; regulatory requirements for ship operations, the economics of ship operation and maintenance: planning, budgeting, planning and execution of shipyard periods; coordination of activities to complete maintenance projects.
ECEM	401	Mar Eng Mgt	Mar Eng Mgt
ECES	100	Statics	This course is a survey of the subject of Statics. The objective is to impart the understanding of Statics with the understanding of forces (including friction), moments, components of forces, centroids, theorem of Pappus, plane and space truss analysis, moments of inertia, and radius of gyration. The calculation of loads on beams, wedges, screws, and flexible belts is also covered. This is a required undergraduate course designed to meet Accreditation Board for Engineering and Technology (ABET) requirements and is needed to complete all of the Marine Engineering degree programs.
ECES	201	Thermodynamics	The development of thermodynamic principles and concepts. Systems of units. First law for open and closed systems. Properties of pure substances. Ideal and real gases. Second law of thermodynamic. Basis reactive systems analysis.
ECES	211	Dynamics	"This course is a survey of the subject of Dynamics. The course aims to help students understand kinematics and kinetics of particles and systems of particles, relative motion, plane kinematics and kinetics of rigid bodies, fixed axis rotation, general plane motion, and three-dimensional kinematics of rigid bodies. This is a required undergraduate course needed to complete all of the Marine Engineering degree programs."
ECES	220	Intro to Materials Engr	An introduction to the structure and properties of solids commonly used in engineering applications. The emphasis of the course is metallurgy; however polymers, composites and advanced materials applicants are also incorporated. Consideration of the effects of composition (alloying), mechanical and thermal treatments are addressed. Failures of materials including fatigue, creep, thermal shock and corrosion, as well as methods of protection are detailed in the context of marine engineering applications.

ECES	221	Intro to Matls Engr Lab	This laboratory is for characterizing materials engineering properties and behavior as a co-requisite to the ECES220 course. Various materials test methods are performed with statistical analysis used in the reporting and evaluation of data. Heat treatment of steel is performed with analysis of metallurgical transformation verified by hardness test results. Charpy Impact Test and tension tests are performed as destructive tests to determine material properties. Non-destructive testing evaluation methods including visual, ultrasonic, dye penetrant and radiographic methods are performed, as well as hardness testing. The course relates materials engineering testing to industry standards.
ECES	230	Fluid Mechanics	Principles of fluid statics including manometry, forces on submerged surfaces, buoyancy. Dimensional analysis. Bernoulli equation with and without friction. Linear and angular momentum. Drag and lift. Compressible flows. Introduction to open channel flows. Introduction to computational fluid dynamics.
ECES	300	Strength of Materials	This course details stress and strain to include analysis of axial, torsional, bending, shear, thermal, pressurized cylinders, and combined loadings. An introduction to gears and power transmission shafting is provided. Mohr's Circle for combined stress for 2-D and 3-D problems is considered, as well as Failure Theories. Shear and bending moment for beams to analyze stress and deflection is included, as well as consideration of instability by buckling of columns.
ECES	310	Heat Transfer	The course discusses quantitatively the three main modes of heat transfer, which are conduction, convection and radiation. A combined approach will be followed that will stress both the fundamentals of the rigorous differential description of the involved phenomena and the empirical correlations used for engineering design. Review of heat exchanger design and analysis will be covered. There will also be brief references to fundamental features of transport phenomena and a brief discussion of mass transport. A full mathematical understanding is expected.
ECES	402	Machine Elements	The purpose of this course is to support the educational objectives of the marine engineering programs by providing students with an opportunity to learn the fundamentals of the design and analysis of machine elements and components. The course includes theory of force and stress analysis, static and fatigue failure, critical speeds, and lubrication. Application of theory includes basic design practices for shafts, gears, pressure vessels, interference fits, journal and antifriction bearings, bolted joints, and welded joints. In addition, they will apply skills and knowledge acquired in mathematics, engineering mechanics, strength of materials, and materials science courses to identify, formulate, and solve engineering problems. This is a required course to meet the graduation requirement for all of the Marine Engineering degrees.

ECME	101	Intro to Marine Engineering I	This course is an introduction to marine engineering provided to all students regardless of major as a general foundation for their studies into marine engineering or marine transportation. The course will survey the propulsion plants for merchant ships (diesel engines, gas turbines, and steam turbines), their basic construction, support systems, and operating principles. The basic principles of pumps, steering gears, refrigeration systems, hydraulics, and engine room safety and watch standing methods will be introduced and discussed. This is a required course to meet the graduation requirement for all of the Marine Engineering and Marine Transportation degrees.
ECME	105	Intro to Marine Engineering II	This course covers various topics related to Marine Engineering including Standards for Training, Certification and Watchkeeping (STCW) Competencies, which are to be satisfied prior to a student's first sailing period. The classification and construction of main boilers, centrifugal pumps, rotary pumps, reciprocating pumps, air compressors and diesel engines are some of the topics. Additionally, operation of this equipment is covered, including hands-on equipment operation in a laboratory, where possible, and simulation and discussion in situations where the equipment is not available in Academy laboratories. This is a required course to meet the graduation requirement for all three of the majors in Marine Engineering.
ECME	400	Marine Steam Plants&Compon	This course covers details on design and construction of marine propulsion boilers and steam turbines, their components and associated support systems. The course will focus on the main propulsion plants for steam turbine operated merchant ships, as well as the auxiliary and other service systems required for those types of ships. The course will focus on steam turbine design, maintenance, construction and operation; and steam auxiliary systems design, maintenance and operation. This is a required course to meet the graduation requirement for all of the Marine Engineering degrees.
ECME	410	Marine Steam Plant Simulation	This course is designed to cover the engineering operations and systems of a modern liquefied natural gas (LNG) vessel steam plant. The course topics will include: lighting off the steam plant from dead ship; raising steam and placing main boilers on line; starting a ship's turbo generators; starting auxiliary systems; preparing the main engine for operation; maneuvering the ship in and out of port; conducting at sea operations; securing main engines in port; and operating boilers combustion control systems. This is a required undergraduate course to complete all of the Marine Engineering degree programs.

ECME	420	Internal Combustion Engines	The study of the theoretical and operational cycles of diesel engines; engine performance and selection criteria; fuel systems, lubrication system; cooling systems; starting and reversing systems; governor systems; diesel engine fuels, fuel injection systems; lubricants; manufacture and design of engine components; crankcase explosions; dynamic balancing of engine running gear.
ECME	430	Marine Refrigeration	This course will cover various topics related to marine refrigeration and air conditioning including cycle analysis, compressor construction and performance, heat exchanger construction and performance, system controls, psychometrics, refrigerant characteristics and recovery, and the calculation of heating and cooling loads.
ECME	431	Marine Refrigeration	This course will cover various topics related to refrigeration and air conditioning including refrigeration cycle analysis, compressor construction, vapor compression refrigeration cycle system controls, refrigerant properties, service practices, psychometric properties of air and HVAC systems.
ECME	440	Engine Rm Resource Mngmt	Engine Room Simulation-based training is designed to enhance the potential third engineer's skills to operate and make proper decisions in the operation of a large horsepower engine room in safe and effective manner. The student will be part of a watch team in which he/she will be placed in numerous operational scenarios. During the course of the operational scenarios various plant conditions may change and machinery casualties may be introduced. The watch team will be required to troubleshoot the situation, decide on the proper course of action and take corrective measures in order to insure safe operation of the propulsion plant.
ECME	450	GT & Mar Aux Equipt	The gas turbine portion of this course covers the application of the Brayton cycle to various gas turbine power cycles; compressor, turbine and combustor design and construction; and gas turbine applications for marine installations. Auxiliary equipment topics include control valves, piping systems, pumps and distilling plants.
ECME	460	Marine Engr License Seminar	This course focuses on the final preparation of marine engineering license candidates. It stresses the importance of environmental protection and the various international and U.S. laws mandating the minimizing of pollution by ship and, in particular, those aspects under the direct control of marine engineers. It also focuses on enhancing the third assistant engineer candidate's examination-taking skills and reinforcing the knowledge necessary to successfully pass the final comprehensive assessment examination in the program of study, the U.S. Coast Guard Second Assistant Engineer examination

ECME	470	Marine Plant Automation&Ctrl	This course covers the fundamental control theory and the application of Programmable Logic Controllers (PLC's) to the automation of marine power plants and equipment, as well as connection to human-machine interface devices (HMI) with supervisory control and data acquisition systems(SCADA). The course includes a background in instrumentation, wiring, ladder-logic programming, and interfacing between personal computers and PLC's for downloading, executing, and troubleshooting programs, and integration into conventional shipboard systems
ECME	480	ME for Deck Officers	This course will provide future Deck Officers with engineering knowledge and skills enabling them to communicate effectively and efficiently with the engine department. A greater understanding of how the engineering and deck department's actions and activities impact each other will be developed. The course will expand on basic marine engineering knowledge obtained during Introduction to Marine Engineering course freshman year.
ECMT	100	Engineering Graphics	This course will cover mechanical drawing, sketching, and computeraided design (CAD) as it relates to the maritime industry. The primary focus will be on the use of a CAD program in order to prepare students for completing sea projects and upper level courses that require drafting. Coverage will include multiview projections, pictorials, section views, flow diagrams, and dimensioning. This is a required undergraduate course designed to meet requirements of the Accreditation Board for Engineering and Technology (ABET) and is needed to complete all of the Marine Engineering degree programs.
ECMT	111	Engineering Shop I	The Engineering Shop I lab course is a required course for all undergraduate degrees in the Marine Engineering undergraduate program. The Machine Shop phase provides an introduction to the principles of basic machine tool operations which includes shop safety, grinders, precision measuring tools, and lathes. Proper use of cutting tools is provided in preparation for using a lathe. Lathe operations include facing off, drilling, turning down diameters, cutting grooves, tapering and threading. The Welding phase will introduce the student to common shipboard welding, joining and cutting processes, equipment, and techniques. Using a combination of hands-on demonstrations, lectures, and skills practice, the student will gain the knowledge to safely and efficiently set up, adjust, and operate shipboard welding and cutting equipment to perform simple weld related repair and fabrication tasks.

ECMT	112	Engineering Shop II	This course is a continuation of metal cutting and joining theory and practice employed in merchant ship fabrication and repair operations. Emphasis is on the theory and safe practice of plasma; gas metal; and tungsten arc welding, oxyacetylene welding, brazing, cutting and flame spray metal surfacing. U.S. Coast Guard and American Bureau of Shipping technical standards are treated. The course also incorporates lathe and tool room machine practices including plain and taper turning, chucks, knurling, internal and external threading and milling machine operations.
ECNA	400	Nav Arch-ME	This course will cover ship geometry and definitions; ship form; hydrostatic properties; initial and overall stability; trim; floodable length and damage stability; ship strength and structure; resistance and propulsion; ship control and fundamentals of ship design.
ECNA	401	Nav Arch-ME	This course will cover ship geometry and definitions; ship form; hydrostatic properties; initial and overall stability; trim; floodable length and damage stability; ship strength and structure; resistance and propulsion; and ship control.
EEAE	410	Alt Marine Pwr Tech	Alt Marine Pwr Tech
EEAE	411	Marine Environmental Technology	Marine Environmental Technology
EEDL	400	Advance Tanker Ops-DL	Advance Tanker Ops-DL
EEEE	400	Guided Research in EE	Guided Research in EE
EEEE	405	Intro to Climate Change	Intro to Climate Change
EEEE	410	Electrical Power	Electrical Power
EEEE	411	Power Electronics	Power Electronics
EEEE	415	Feedback Control Sys	Feedback Control Sys
EEEM	300	Steel Maint & Repair	Steel Maint & Repair
EEEM	410	Per Mgt for Engr	Per Mgt for Engr
EEEM	411	Shipyard Management for Senior	Shipyard Management for Senior
EEEM	415	Dry Docking	Dry Docking
EEMC	400	Ship Construct & Repair	Ship Construct & Repair
EEMC	450	Drydock Design & Ops	Drydock Design & Ops
EEME	400	Prin. Ship Rep & Con	Prin. Ship Rep & Con
EEME	411	Adv Eng Graphics	Adv Eng Graphics
EEME	440	Diesel Engine Maintenance	Maintenance planning based on engine running hours and/or predictive maintenance. Discussions of maintenance to specific parts of the engine including fuel injectors, exhaust valves, piston rings and main bearings & connecting rod bearings. Laboratory work includes disassembly and assembly of exhaust valves, cylinder covers, pistons, cylinder liners, connecting rods and main bearings.
EEME	441	Adv AutoCad	Adv AutoCad

EEME	443	CAD & Manufacturing	CAD & Manufacturing
EEME	445	Gas Turbine Design	Gas Turbine Design
EEME	450	Drydock Design & Ops	Drydock Design & Ops
EEMN	400	Advanced Manufacturing	Advanced Manufacturing
EEMN	401	Manufacturing Pro	Manufacturing Pro
EEMN	402	Advanced Welding	Advanced Welding
EEMN	443	CAD and Manufacturing LAB	CAD and Manufacturing LAB
EENE	410	Nuclear Engineering	Nuclear Engineering
EENE	411	Nuclear Propulsion Plant Engr	This course includes the application of the engineering sciences to the operation and design of nuclear power plants including associated support systems. The following are some of the topics included in this course: Pressurized Water Reactors, Gas Cooled Reactors, Boiling Water Reactors and CANDU Reactors. There is further emphasis on design basis evaluation, advanced nuclear reactors including weight and space design considerations, nuclear trends, propulsion plant systems and propulsion plant operations.
EEOE	411	Offshore Oil Drilling & Prod	Offshore Oil Drilling & Prod
EEOE	420	Offshore Power Systems	This course will cover the various means of energy extraction from the ocean, including wind, waves, tides, and thermal gradients. Fundamental approaches as well as variants in development or in operation will be examined for their limitations, economic viability and environmental impact
EMEM	400	Shipyards Processes & Proc	Introduces the student to the fundamentals of shipyard operations. Familiarization with manufacturing/production processes and quantitative analysis of methods used in shipyards and the marine construction/fabrication industry. Fundamentals of machining, joining, forming, casting, forging, inspection and testing. For marine engineering and shipyard management major only.
EMEM	405	Eng Project Management 1	Introduces the fundamentals of management of engineering projects related to ship operation, ship production, and repair. The subjects include classification of projects; organizational structure and contracts; project stages; basics of engineering design; shipyard project estimating; work breakdown, planning and scheduling; computerized network scheduling systems; project monitoring and updating; project cost control. Practical experience is gained in case studies, calculations, and justification of design ideas and in development of a computer based schedule of a project. For (MESM) Marine Engineering & Shipyard Management major only

EMEM	410	Marine Proj & Prod Mngmt	Introduces the fundamentals of management of maritime engineering projects related to ship operation, ship production and repair. The subjects include classification of projects; organizational structure and contracts; project stages; basic of engineering design; project development and work breakdown, planning and scheduling; network scheduling systems; project monitoring and updating; project control; production control, planning and scheduling; management organization and structures; integrated management systems; labor and productivity; quality assurance; plant operations and control. Practical experience is gained in case studies, calculations and documentation development. For marine engineering and shipyard management major only
EMEM	420	Marine Mgmt and Planning	Introduces the student to the fundamentals of developing engineering projects related to ship operation, ship production and repair. Concept design techniques incorporating owners requirements, economic consideration into a balanced ship design. Scheduling of project activities, design; materials management work flow; mathematical modeling, of work flow, yard project integration. Practical experience is gained in case studies, calculations and documentation development. For marine engineering and shipyard management major only.
EMEM	425	Engineering Project Management	This course builds on the fundamentals of management of engineering projects related to ship operation, ship production, and repair as covered in EMEM415 (Engineering Project Management 2). The Capstone subjects include: definition of shipyard capabilities; creation of detailed production schedules, process, and testing schedules; work force management; and leadership. Modern manufacturing processes will be explored as they relate to ship design and production. Practical experience is gained in case studies, calculations, and justification of design ideas and in development of a computer-based schedule of a project. This is a required course to meet the graduation requirement for Marine Engineering and Shipyard Management (MESM) major only.
EREM	300	Engineering Economics	This course provides students with an introduction to the economic logic and quantitative methods necessary to provide a basis for engineering decision making involving capital investment and cost effectiveness. Key concepts addressed in this class include: equivalence, cash flow, prospective rate of return, capital recovery, depreciation, replacement policy, and tax considerations. Practical applications to ship design, operations and construction are presented as applicable in case studies. This is a required course to meet the graduation requirement for the Marine Engineering Shipyard Management and Marine Engineering Systems degrees.
ESEA	266	LNG Cargo Systems and Operation	LNG Cargo Systems and Operation

ESME	400	MES Capstone 1	MES Capstone 1
ESME	410	MES Capstone 2	MES Capstone 2
ESME	420	MES Capstone 3	A continuation of the capstone design project required for all Marine Engineering Systems majors. Student design teams complete the design of the systems for a marine vehicle including design calculations, equipment selection, and preparation of specifications and drawings. Included are the preparation of the final project report and presentation of the final project to an industry and faculty panel. Each team is assigned a Faculty Advisor.

Math and Science

Subject	Number	Title	Course Description
ASTR	405	Intro Astronomy	Introduction to fundamental astronomy terminology, concepts and analytical problems related to Archeoastronomy, the Earth & Moon system, our Solar System, solar astronomy, stellar evolution, and an introduction to objects beyond our solar system including extra-solar planets and alien life. This course includes a laboratory component for observations of astronomical objects using the Academy's telescope at our observatory.
ASTR	415	Obv Astro & Tech	Geometric optics; types of astronomical telescopes and detectors; astronomical observation techniques; analysis of selected astronomical examples of data and images. Lecture time will be spent primarily on learning about equipment & techniques for making astronomical observations and interpretation & analysis of the data collected. Day and evening lab time for photography and data collection will utilize the Academy's 16 telescope and/or remotely-accessed telescopes. This course can be taken as a stand-alone course or as one of the 3 courses for the Astronomy concentration.
CHEM	100	General Chemistry	This course provides a variety of approaches used in answering qualitative and quantitative problems in chemistry. Fundamental concepts presented in lecture and laboratory include: units of measurement; dimensional analysis; classification of matter; chemical nomenclature; the mole concept; reaction types with stoichiometry calculations; states of matter including gas properties, solution chemistry, and solids; thermochemistry; atomic/electronic structure/properties and periodicity; types of chemical bonding and molecular structures; states of matter and phase diagrams; intermolecular forces; physical properties of solutions; reaction kinetics and factors affecting reaction rates; chemical equilibrium; and Le Chatelier's Principle. General Chemistry laboratory will involve activities relevant to the course content by incorporating modern laboratory techniques and measurements as well as computer data processing.

CHEM	200	General Chemistry For Engineer	LAB- The course is a joint course offered by the Math & Science Department and the Engineering Department. The chemistry part of the course will cover the following topics: acid-base theories, ionization of acids and bases, pH concept and calculations, hydrolysis of salts, buffer solutions, titration curves, indicator dyes, solubility and complex-ion equilibria, free energy concept, spontaneity, electrochemistry, nuclear chemistry, organic chemistry, water chemistry, combustion chemistry. The engineering part of the course will cover topics such as marine/air pollution controls and policies, sewage treatment plants, gray water, ballast water management and treatment, bilge water and OWS effluent, antifouling leachate from hull coatings, cathodic protection, deck wash-down and runoff, Aqueous Film Forming Foam (AFFF), Marine Engine emission standards, Ozone Depleting Substances, Garbage/Trash regulations.
CHEM	210	Selected Topics in Chem Engr	This course provides a variety of approaches used in solving qualitative and quantitative problems in chemistry. The content is an overview of some topics of a typical college General Chemistry 2 course, with additional topics relevant to marine engineering. The major topics presented in lecture and laboratory include: equilibrium, acid/base chemistry, thermochemistry, electrochemistry, organic chemistry, and selected topics in water chemistry and combustion chemistry. Laboratory activities relevant to the course content incorporate laboratory techniques and measurements as well as computer data processing. This is a foundational undergraduate course required for all Marine Engineering Majors.
COMP	105	Computer Programming	This course introduces students to basic concepts of computer programming. Major topics covered are data types, expressions, loops, conditional statements, files, functions, lists and dictionaries and classes. This is a required undergraduate course designed in order to complete the Marine Engineering and Marine Transportation degrees.
COMP	400	Machine Learning and AI	Machine Learning and AI
CYSC	435	Intro to Java & Cryptography	Basic programming: logical operators, control structures, loops, methods, recursion. Modular arithmetic; binary numbers. Basics of cryptography; classical and modern ciphers and their implementation; private and public key cryptography.
CYSC	445	Comp Network, Arch & Mgt	Computer Networking Architecture & Management
CYSC	450	Cyber Defense Capstone	Cyber Defense Capstone
CYSC	455	Introduction to Python and AI	This course presents elementary Python programming techniques and more specialized techniques that are needed for machine learning, data mining, and artificial intelligence. Once this is done, the mathematics of neural networks is developed. Finally, the math and Python are put together to build a neural network.

MASC	430	Intro to Ocean	This course is designed to provide an introductory overview of the history of oceanography; earth structure and plate tectonics; ocean topography; sediments; seawater chemistry and ocean physics; atmospheric and ocean circulation; wave dynamics and tides; the marine ecosystem; productivity and marine animals; marine resources and environmental concerns.
MATH	100	Calc 1 with Precalc Review	This course introduces the language, concepts, techniques, and applications of precalculus, differential calculus, and integral calculus. Major topics covered are trigonometry, functions, exponential functions, logarithms, limits and continuity; derivatives, differentiation rules and implicit differentiation; applications of differentiation including related rates, graphing, and optimization; approximation methods; antiderivatives and definite integrals. This is a required undergraduate course designed in order to complete the Marine Engineering and Marine Transportation degree requirement.
MATH	101	Calculus I	This course introduces the language, concepts, techniques, and applications of differential and integral calculus. Major topics covered are limits and continuity; derivatives, differentiation rules and implicit differentiation; applications of differentiation including related rates, graphing, and optimization; approximation methods; antiderivatives and definite integrals.
MATH	130	Calculus 2 Deck	This course continues the study of concepts, techniques, and applications of differential and integral calculus. Major topics covered are techniques of integration; approximate integration; improper integrals; applications of integrals to volume, physics, and economics; introduction to differential equations and their applications; parametric curves; calculus in polar coordinates; sequences and geometric series.
MATH	140	Calculus 2 Engine	Calculus 2 Engine
MATH	200	Probability&Statistics for Bus	This course introduces students to the concepts, methods, and applications of probability and statistics. Major topics covered are measures of center and variability; probability, counting, conditional probability, independence; binomial, Poisson and normal probability distributions; Central Limit Theorem; statistical inference, confidence intervals, tests of significance; bivariate regression analysis; analysis of variance. This is a required undergraduate course designed in order to complete the Marine Transportation degree.

MATH	215	Prob & Statistics for Engr	This course introduces students to the concepts, methods, and applications of probability and statistics. Major topics covered are probability, counting, conditional probability, independence; random variables, expectation, and variance; discrete and continuous distributions; Central Limit Theorem; statistical inference, confidence intervals, tests of significance; and linear regression. This is a required undergraduate course designed to meet the graduation requirements for all of the Marine Engineering degrees.
MATH	220	Differential Equations 1	Integrating factors, numerical methods, linear equations with constant coefficients, harmonic motion, damping, forcing, resonance, Laplace transforms. Matrices, determinants, eigenvalues, systems of linear equations. Introduction to computer programming and applications to matrix operations and differential equations.
MATH	240	Intro to Diff Equ&Linear Alg	This course introduces differential equations and their applications and basic concepts and techniques of linear algebra. Major topics covered are first order differential equations, their solution methods and applications; linear equations with constant coefficients, equations of motion, and series circuits; Laplace transform; power series solutions; systems of differential equations; matrices, Gaussian elimination, determinants, and eigenvalue problem.
MATH	305	Calculus III	Sequences and series; tests for convergence, power series, Taylor series, multivariable calculus: graphs, contour maps, vector products; partial and directional derivatives; gradient, extrema; multiple integrals; programming Taylor series approximations of functions and Riemann sums.
MATH	310	Operations Research 1	Linear Algebra, decision making under uncertainty, EQQ and related models, stochastic processes, simulation, forecasting models.
MATH	320	Differential Equations 2	Orthogonal functions, Fourier and other series expansions, two point boundary value problems including the Sturm-Liouville problem. Boundary and initial value problems for partial differential equations including the heat equation, the wave equation, and the Laplace equation. Introduction to programming and computational methods for differential equations.
MATH	330	Operations Research 2	Linear programming, simplex method, sensitivity analysis and duality, transportation and assignment problems, integer programming.
MATH	350	Intro to Partial Diff Equations	Intro to Partial Diff Equations
MSEA	411	Chemical, Biological, and Radi	Chemical, Biological, and Radi
NUCE	470	Nuclear Physics & Engineering	This course teaches Nuclear Physics at an introductory level including the topics of nuclear structure, binding energy, radioactivity, radioactive decay, nuclear reactions, fission, fusion, nuclear instrumentation and particle physics. In addition, an overview of applications of Nuclear Physics will be discussed including particle accelerators, details of power generation via nuclear fission reactors, and an overview of power generation via nuclear fusion.

NUCE	480	Modern Physics	Modern Physics
PHYS	110	Physics 1	This is a calculus-based general physics course which covers the mechanics of translation motion, including particle kinematics and dynamics, systems of forces, work and energy, linear momentum and fluid mechanics. This is a foundational undergraduate course required for the completion of either the Marine Engineering or Marine Transportation degree.
PHYS	120	Physics 2	This is a calculus-based general physics course which covers rotational mechanics, oscillations, waves, light, thermodynamics and current electricity, including: rotational kinematics and dynamics; simple harmonic motion; wave motion and sound; geometric optics; heat, ideal gases and the 1st and 2nd laws of thermodynamics; and DC circuits. This is a foundational undergraduate course required for the completion of either the Marine Engineering or Marine Transportation degree.
PHYS	230	Physics 3	Wave optics, gravitation and electromagnetism: interference and diffraction of light; gravitation; electric field; electric potential; capacitance; magnetic force; magnetic field; electromagnetic induction; and AC circuits.

Humanities

Subject	Number	Title	Course Description
HIST	100	History of Sea Power	History of Sea Power
HIST	200	Regional Studies	Regional Studies offers an introduction to the historical and cultural background of a region that has had and will continue to have grand strategic importance to the United States. The course explores the interplay between area-specific cultural factors, traditional regional dynamics, and historical trends in the wider global system. The course will touch on some or all of the following issues connected with the region in question and the transition to modernity: nation-state formation and nationalism; imperialism and globalization; the relationship between state and civil society; industrialization and technological change; ideological contestation; and transformations in the parameters of human agency. This is a required undergraduate course designed in part to meet the Department of the Navy requirements for newly commissioned officers.
HIST	220	Modern World History	This course will examine key issues in the history of the modern world. The course will focus on exploring political, economic, and/or intellectual change and on the impact of interactions between a number of different parts of the world. There will be a focus on significant transnational events over an extended time period. Each instructor will choose a theme, or series of themes, to organize the material; the course is not intended to be comprehensive. Themes may also change by semester.

HIST	230	The American Revolutionary War	An introduction and overview of the American Revolution/War for Independence. It takes an international view, rather than a national or patriotic perspective; thus it is fair to address the conflict as the British Imperial Civil War. Topics covered include: origins, political theory, economic practices, military strategy and key battles, leaders, peace-making, and the short and long-term legacies of the conflict. Students who successfully complete the course will have a good knowledge base of this era and be able to explain its place within the larger context of modern world history.
HIST	240	The Great War	This course examines the causes, course, and consequences of World War I. In addition to covering the important diplomatic and military events, special attention is paid to the emergence of new social and political movements that marked the birth of the twentieth-century world.
HIST	245	Pacific Campaigns of WWII	Pacific Campaigns of WWII
HIST	250	Latin America	Latin America
HIST	261	Modern China	Modern China
HIST	265	Modern Japan	Modern Japan
HIST	266	Cultural of the Samurai	This course offers a history and worldview of the samurai from the Heian period (800s) up until the creation of the Meiji state in the late 19th century. Special emphasis will be placed on religion, political economy, and the samurai culture of honor.
HIST	267	Civil War	Civil War
HIST	270	Melville & His World	Melville & His World
HIST	280	Pirates	Pirates
HIST	282	Studies in Comparative Culture	The social, economic, political structures, and religious and cultural foundations of non-Western societies. Perspectives on contemporary developments in selected areas, focusing on the distinct historical evolution of cultures and comparison to Western developments. Areas vary from year to year.
HIST	285	Contemporary Issues	Contemporary Issues
HIST	300	Sem in US History from 1945	This course is an introduction to the theory, creation, and management of U. S. national security policy. It examines the environment – both international and domestic – in which policy and strategy formulation occurs, the actors and agencies that formulate policy and strategy, and the instruments of power (diplomatic, informational, military, and economic (DIME)) the United States employs to pursue its national policy and strategy objectives. This is a required undergraduate course designed in part to meet the Department of the Navy requirements for newly commissioned officers.

HIST	400	Sem in Natl Sec Policy & Strat	This course is an introduction to the theory, creation, and management of U. S. national security policy. It examines the environment – both international and domestic – in which policy and strategy formulation occurs, the actors and agencies that formulate policy and strategy, and the instruments of power (diplomatic, informational, military, and economic (DIME)) the United States employs to pursue its national policy and strategy objectives. This is a required undergraduate course designed in part to meet the Department of the Navy requirements for newly commissioned officers.
HIST	410	Modern World History	This course will examine key issues in the history of the modern world. The course will focus on exploring political, economic, and/or intellectual change and on the impact of interactions between a number of different parts of the world. There will be a focus on significant transnational events over an extended time period. Each instructor will choose a theme, or series of themes, to organize the material; the course is not intended to be comprehensive. Themes may also change by semester.
HUMN	275	Psych of Leadership	Seafarers have been identified as a group with the highest rate of stress; due to fast paced schedules, decreased crews, and the pressures of being away from home for extended periods of time. It is up to those in charge to promote and facilitate an awareness of human communications for a successful voyage. Throughout this interactive course we will incorporate neuroscience with human behavior to concentrate on how emotional intelligence, nonviolent communication and mindfulness help to build confident leadership roles in order to create optimal workplace conditions.
HUMT	270	Melville & His World	Melville & His World
HUMT	271	Heroes & Villains Culture	Heroes & Villains Culture
HUMT	272	Intro Maritime Hert & Mues	Intro Maritime Hert & Mues
HUMT	273	Museum Practicum	Museum Practicum
HUMT	274	Literature & Leadership	Literature & Leadership
HUMT	275	Psych of Leadership	Psych of Leadership
HUMT	276	Lit Act Heroes & Heroines	Lit Act Heroes & Heroines
HUMT	277	Prin. of Self & Society	Prin. of Self & Society
HUMT	278	Improvisation	Improvisation
HUMT	279	The Podcast	The Podcast
HUMT	280	Charting the Ocean	Charting the Ocean
HUMT	281	Moby-Dick	Moby-Dick
HUMT	282	Tech & Hist of Future	Tech & Hist of Future
HUMT	283	Political Violence	Political Violence
HUMT	284	Love, Fear, Thrills & the Futu	Love, Fear, Thrills & the Futu
HUMT	285	Things That Should Be Small	Things That Should Be Small

HUMT	286	Reading & Leading	Reading & Leading
HUMT	287	Attention and Distraction	Attention and Distraction
HUMT	288	Buddhism	Buddhism
HUMT	289	The Civil War & Reconstruction	The Civil War & Reconstruction
HUMT	290	Shackleton	This elective centers on the exploration of Shackleton to the Antarctic. It will use books, articles, primary documents, as well as documentaries. Besides seeking answers to what makes good leadership and why is curiosity and exploration important to the human condition, students will also learn about the genre of the documentary.
HUMT	291	The Bomb	This course examines the historical legacy of the atomic bomb. Covering the period immediately before the weapon's development through the present, students will confront key themes like technological progress, national security, and cultural shifts in relation to nuclear power at large. This seminar-style course will integrate primary source readings, digital learning tools, and films to help students connect course themes with the past and contemporary world, while answering the question, "To what extent has American society successfully grappled with nuclear power?"
HUMT	292	Books By Directors	In this course we'll read books by four prominent directors: Notes on the Cinematograph by Robert Bresson (1901-1999), Making Movies by Sidney Lumet (1924-2011), Rebel without a Crew by Robert Rodriguez (1968-), and Cinema Speculation by Quentin Tarantino (1963-). In addition to studying each text for its form, style, and content, we will study movies by each director and ask how each book informs our understanding of the movies.
HUMT	293	Sports Lit	This course will examine representations of sports in contemporary literature as a way of exploring the role of sports in our individual lives and American culture at large. From football, basketball, and baseball through tennis, boxing, and swimming, the great variety of sports has produced a vast body of incisive and smart writing across literary genres. In class discussion, special emphasis will be placed on themes that relate to students' real athletic experiences, including, but not limited to, physical fitness and bodily movement; youth and aging; the making of heroes and icons; nationalism and socio-cultural issues; the individual versus the community (team); and violence and beauty. As part of our exploration of the role of sports in American culture, we will read nonfiction personal essays, journalistic reporting, novels, short stories, and poetry by writers like David Foster Wallace, Don DeLillo, Hanif Abdurraqib, and Julie Otsuka. Students will also introduce their own texts into the class corpus (to include film, tv, and other media).

HUMT	294	The Future	Much of a college student's life remains in the future. But what will that future look like? Your graduating class enters a world facing a new technological revolution with AI and automation, a world of supercharged scientific advance but also wildly intensified risk, a world of shifting geopolitics and climate patterns: a world obsessed with its own rapid change. It is no surprise that dystopian stories are so popular, as we collectively enjoy hoping for the best but imagining the worst. With so much uncertain, now is the time to look into the future, thinking about what might come next, and what we want to come next. Reflecting on historical discourses of "the future" through novels like HG Wells' <i>The Time Machine</i> and Margaret Atwood's <i>Oryx and Crake</i>, as well as contemporary media like <i>Black Mirror</i>, students will consider how and why we envision different futures, and how we want the future to look back at us. Assignments will include a time capsule, literary analysis, creative writing, and presentations on different dimensions of future prediction.
HUMT	295	Literary Interludes	Why does grief strike across time? Does trust endure? Is this then love? Through reading a select number of literary pieces ranging from short story to drama, this course provides an interlude of time to reflect upon the meaning of life. The two central themes revolve around death and love. Both are key players in what makes us who we are. For if we know how to greet death, will we not know how to live? If we understand love, will it not enrich this journey called life? Discover, acknowledge, and refine what being human means to you in these literary interludes of life. Readings from James Joyce, Paul Kalanithi, John Donne, Mary Oliver, Shakespeare, and others. Be not afraid.
LITR	101	Composition & Literature	Composition and Literature, which students usually take during plebe year, emphasizes composition, with writing assignments and a research paper designed to help students practice their rhetorical skills and aspects of writing such as unity, organization and coherence, development, and precise, emphatic wording and usage. The course also emphasizes reading, discussion, and critical analysis of works of literature and/or essays and film, fostering the skills of close reading and critical thinking that are springboards to good writing.
LITR	201	Literature	LITR201 focuses primarily on close reading and the study of literature in various genres, and provides additional work on composition, oral presentation, individually and/or in groups, and class discussion. LITR201 teaches students to analyze and comprehend the worlds that words create, and also provides students the opportunity to reflect on the complexity of human life and history, conflict and cooperation, and the impact of diverse cultures on individuals and societies. 3 credits. This is a required undergraduate course designed to meet the general education requirements for a B.S. degree and to meet the Department of the Navy requirements for newly commissioned officers.

LITR	210	Shakespeare on Film	Shakespeare on Film
LITR	215	Global Literature	Global Literature
LITR	220	Technical & Professional Com	This course focuses on technical and professional communications-the clear, accurate, accessible presentation of specialized information in written and spoken forms. Students will study and imitate models, writing technical reports, business plans, proposals, memoranda and e-mail messages. Students will work together, providing constructive criticism, proofreading others' work, and preparing for final projects. The class will also give students opportunities to deliver information orally through speeches and presentation. Emphasis here will be on the content, organization, and engaging delivery of information. This course will be taught with the support of the Department of Marine Engineering.
LITR	230	Intro To Cinema	Intro To Cinema
LITR	235	Classics of Film	Classics of Film
LITR	240	Intro to Jazz: Lit, Art, Film,	Intro to Jazz: Lit, Art, Film,
LITR	410	Crux of the Matter	The Crux of the Matter: Narratology and the Subject of Argument This course analyzes fictional texts to discover patterns of narrative and how those patterns resonate with the stories we live and tell ourselves in order to understand reality. This class will cover basic discourse theory and will involve intensive writing and reading.
MUSI	100	Intro to Music - Music Audit	This course is an introduction to music and choral singing with a focus on the music of the maritime industry, the armed forces and patriotic songs of the United States. Firstly, this course is useful in that the midshipmen will learn the music of the maritime industry. In addition, the course will highlight the United States Merchant Marine Academy itself through the publicity and public exposure by a highly skilled performance ensemble. Lastly, the study of music is valuable for the development of a well-rounded individual.
MUSI	200	Intro to Maritime Music and Vo	This course is an introduction to music and choral singing with a focus on the music of the maritime industry, the armed forces and patriotic songs of the United States. Firstly, this course is useful in that the midshipmen will learn the music of the maritime industry. In addition, the course will highlight the United States Merchant Marine Academy itself through the publicity and public exposure by a highly skilled performance ensemble. Lastly, the study of music is valuable for the development of a well-rounded individual.

WRIT	100	English Language Lab	English Language Lab is a once-a-week lab designed to help you improve your grammar and usage. The grading system is pass/fail. Failure of this lab, WRIT100 will result in automatic failure of LITR 101 Composition & Literature. If it appears that you are failing LITR 101, your professor will inform you and your LITR101 instructor as soon as possible. This is a required undergraduate course based on the diagnostic exam.
WRIT	110	Technical & Professional Com	This course focuses on technical and professional communications-the clear, accurate, accessible presentation of specialized information in written and spoken forms. Students will study and imitate models, writing technical reports, business plans, proposals, memoranda and e-mail messages. Students will work together, providing constructive criticism, proofreading others' work, and preparing for final projects. The class will also give students opportunities to deliver information orally through speeches and presentation. Emphasis here will be on the content, organization, and engaging delivery of information. This course will be taught with the support of the Department of Marine Engineering.

Naval Science			
Subject	Number	Title	Course Description
NASC	100	Intro to Naval Science	The course introduces Strategic Sealift (SSO) midshipmen to the organization of the Naval Service, varied career opportunities, long-held customs and traditions of the service, capabilities of the United States Navy, duties of a junior officer, and Navy policies on relative wellness issues. Additionally, the course prepares SSO midshipmen for their first experience onboard a Navy ship by imparting basic information concerning shipboard procedures. This is a required / elective undergraduate course designed to meet (the Department of the Navy requirements for newly commissioned officers/ABET requirements/other) in order to complete the Marine Engineering / Marine Transportation degree.
NASC	200	Strategic Sealift	Strategic Sealift provides an introduction to the role that the U.S. Merchant Marine plays within the U.S. Navy's Strategic Sealift mission. Using a multi-disciplinary approach, this course will study the history, role and function of the U.S. Navy/ U.S. Merchant Marine relationship, the development and execution of Sealift as a part of United States Maritime Strategy, and the operational skill set required for Fleet interoperability.
NASC	400	Naval Leadership & Ethics	SSO midshipmen learn an ethical foundation and the basic leadership tools needed to be effective junior officers. Additionally, the course provides broad knowledge of the various moral, ethical, and leadership philosophies that strengthen personal character and presents an overview of duties, responsibilities, and expectations of junior officers in the United States Navy.

NASC	410	Naval Science Senior Seminar	This course is an in-depth study of a series of procedures, policies, and practices that form the foundation of service as a Naval Officer. It also includes an examination of your responsibilities as a future Naval Officer in the United States Naval Reserve.
NASC	430	Military Sci for Army Officer	Military Sci for Army Officer
NASC	434	USMC	USMC
NASC	450	Adv. NS for CGJO	A comprehensive course, recommended for any academic major entering military service, addresses the role of the United States Coast Guard role in Homeland Security and National Defense. Special emphasis is placed on the Coast Guard's unique position, capabilities, and statutory authorities as both a military service and law enforcement agency. The course also focuses on leadership and an officer's simultaneous responsibilities to lead, manage, and grow their technical proficiency within their officer specialty.

NASC	460	Roles of Air Force Officer	Roles of Air Force Officer
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Physical Education and Athletics

PE&A	110	Basic Swimming	Students receive instruction in the various strokes and procedures, which may be utilized in water survival situations. Students also develop their fitness component through their work in the pool. Individual remedial instruction is available for students with little or no experience in the water. This course fulfills STCW requirements in selected Aquatic Survival techniques. Basic Swimming is the first course to improve a student's aquatic ability.
PE&A	120	First Aid	This course is designed to train students to recognize and provide elementary care for victims of illness and injury according to current first aid standards. Students will learn to administer proper respiratory and cardiac care in emergency situations. This course contains multiple STCW Knowledge, Understanding and Proficiency (KUP) concerning the knowledge and application of varying First Aid processes. This course is required for all Plebe Midshipmen and is offered throughout the academic year.
PE&A	125	Self Defense Tactics	This course is designed to train midshipmen to defend themselves during combative situations while out at sea, on liberty, or working in the maritime industry. The course covers basic techniques, and strategies of self-defense. During the course Midshipmen learn physical techniques as well as strategies to avoid potentially dangerous situations. The Midshipmen actively practice defensive skills, and have the opportunity to utilize both physical and non-physical skills in real-life simulations.

PE&A	130	Aquatic Survival	Students learn how to react in a correct manner during water emergency situations, take measures appropriate to his/her own survival and to the survival of others. Students also receive instructions in the prevention of aquatic emergencies and the use of survival equipment. This course fulfills STCW requirements in selected Aquatic Survival techniques. Aquatic Survival is an advanced course to improve your aquatic ability.
PE&A	200	Medical Care Provider	This is a course of instruction which will allow ship's personnel to provide emergency medical care with a degree of competence to increase chances of survival at sea. Midshipmen will be versed in anatomy, physiology, emergency medical techniques and equipment, as well as their proper application. This course fulfills the STCW requirements for medical first aid.
PE&A	401	Lifeguard Training	Students receive instruction in Lifeguarding skills. Each student will develop the necessary knowledge and skills needed to help prevent and respond to aquatic emergencies. This includes land and water rescue skills as well as first aid, cardiopulmonary resuscitation(CPR) and automated external defibrillators(AED). Upon successful completion of this course, each student will receive a two year certification, from the America Red Cross, in Lifeguarding, First Aid, CPR and AED. This course will fulfill three credits toward the Shipboard Safety and Wellness Concentration.
PE&A	410	SRS Fitness Training	SRS Fitness Training
PE&A	420	Lifetime Activities	The lifetime Activities course will be team taught and divided into three sections with a focus of developing and understanding and competency in Golf, Racquetball, and Tennis. Students will be exposed to the rules, etiquette, and basic skillsets necessary in participation of the three sports. Upon completion of the course, midshipmen will have gained confidence and required skills to participate in these activities. Such skills will contribute to the promotion of lifelong participation in physical activity, as well as an avenue to use for future business endeavors including networking, stewardship, and negotiation.
PE&A	430	NYSEMTB	Emergency Medical Technician (Basic): This course prepares the student for EMT (Emergency Medical Technician) certification. The State of New York Department of Health, Bureau of emergency Health Services and national EMT-B standards mandates the content and sequence of the course materials. The Student will learn the skills and knowledge needed to provide definitive care for a patient rapidly and safely as a situation dictates. The course consists of lecture, laboratory, online material and clinical hospital/ambulance observation. The students will gain proficiency in CPR, oxygen therapy as well as assessment and treatment of various medical and traumatic illnesses and injuries. 6 hours per week of mixed lecture and laboratory time as well as 5 weekend (Saturday) double class sessions over 1.5 terms.

PE&A	440	Health and Wellness	Health and Wellness issues confronting American Society. The course serves as a tool that will allow students to build a wellness plan based on the principles and concepts of health and wellness. The course emphasizes basic human physiology concepts and the mechanisms by which the body adapts to and benefits from physical training. Students will learn how to assess, monitor, develop, and maintain their wellness in all full components: cardio respiratory, muscular strength, muscular endurance, flexibility and body composition.
PE&A	450	Medical Person in Charge	Medical Person in Charge: This is a course of instruction for ship's personnel who will provide emergency care and short term care for those aboard the ship. Midshipmen will be versed in emergency care, aspects of nursing, diseases and prevention of diseases, dental care, alcohol and drug abuse, pregnancy and childbirth, hygiene, death at sea, external assistance and record keeping. This is an elective course that fulfills the STCW requirement of competence in medical person in charge. STAFF REQUIREMENTS: Course must be instructed by MD, Physician's Assistant, RN, Nurse Practitioner, EMT (May teach lesson based on applicable experience)
PE&A	460	Medical Person in Charge-Bridg	Medical Person in Charge-Bridge: This is a course of instruction for ship's personnel who will provide emergency care and short term care for those aboard the ship. Midshipmen will be versed in emergency care, aspects of nursing, diseases and prevention of diseases, dental care, alcohol and drug abuse, pregnancy and childbirth, hygiene, death at sea, external assistance and record keeping. This is an elective course that fulfills the STCW requirement of competence in medical person in charge. This course will be available to EMT's third term senior year. This course will bridge the EMT course to the STCW requirements of Medical Person in Charge. STAFF REQUIREMENTS: Course must be instructed by MD, Physician's Assistant, RN, Nurse Practitioner, EMT (May teach lesson based on applicable experience)
PE&A	470	Combative Sports	Combative Sports(PE&A470) is designed to train midshipmen in a range of combative sports including: Boxing, Wrestling, and Jui-Jitsu. The course covers basic and advanced techniques and strategies of each discipline. During the course the Midshipmen will be taught how to safely and accurately perform the technique in each sport. The Midshipmen will actively practice all techniques, and have the opportunity to utilize their training in live competition with other midshipmen in the class.

Mental skills training is designed to teach skills that are consistent with the mental training principles used by the navy seals, the Army Center for Enhanced Performance, athletes, exercisers, business professionals, and those pursuing other lifetime achievement goals. The skills taught include: self-awareness training, goal setting, imagery and visualization, cognitive strategies, intensity regulation, stress management, and focus control. The history and theory of each mental skill will be taught and a practical application to that theory will be covered and used by the students. The course will conclude by covering the application of the mental skills learned in class into professional and career skills to be used as an officer in the Merchant Marine.

Waterfront Activities

WTRF 100 Safety of Life at Sea

Students successfully completing this course will be able to take charge of the preparation, embarking and launching of survival craft. They will be able to manage a boat under oars or motor, and take charge of an inflatable life raft. Students will know the correct use of all survival equipment and the action to take to preserve the lives of those in their charge. An official test to obtain U.S. Coast Guard certification will be given. Students will also learn about the impact of shipping on the environment, relevant pollution prevention legislation, and procedures and equipment to be used to mitigate pollution incidents.

WTRF 200 Basic Keelboat Sailing

Basic Keelboat Sailing

Commandant

CMDT 100 Social Responsibility

This course is required of all Midshipmen and is offered during the indoctrination of the Fourth-class year. The class focuses on preparing the Midshipmen for PSSR issues they may deal with out at sea. This course satisfies elements of the basic Standards of Training, Certifications and Watch-keeping for Seafarers (STCW) training requirement for PERSONAL SAFETY AND SOCIAL RESPONSIBILITIES for seafarers employed or engaged in any capacity on board ship as described in Title 46 U.S. Code of Federal Regulations (CFR) and Table A-VI/1-4 of the STCW Code as amended in 2010. This course is required of all Midshipmen and is offered during the indoctrination of the Fourth-class year. The class focuses on preparing the Midshipmen for PSSR issues they may deal with out at sea. This course satisfies elements of the basic Standards of Training, Certifications and Watch-keeping for Seafarers (STCW) training requirement for PERSONAL SAFETY AND SOCIAL RESPONSIBILITIES for seafarers employed or engaged in any capacity on board ship as described in Title 46 U.S. Code of Federal Regulations (CFR) and Table A-VI/1-4 of the STCW Code as amended in 2010.

Academic Policies and Procedures

The U.S. Merchant Marine Academy's academic policies and procedures are stated in the Academic Policies Handbook. Each Midshipman receives a copy of this guide upon entry to the Academy and is responsible for understanding its contents. The following is a summary of the Handbook's most important provisions

Grading

The Academy uses a letter-grade system with each letter grade assigned a numerical quality-point equivalent. The scholastic significance of the grades and related quality point equivalents are reflected in the following table:

Letter Scale	Quality-Point Value
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
P	0.00
F	0.00
I	Incomplete
E	Exempt
W	Withdrawal

Academic Status

A Midshipman is considered to be proficient for a grading period if no F grade is received, and the trimester quality point average is 2.000 or greater. A Midshipman achieves overall proficiency if these requirements are met and the cumulative quality point average is 2.000 or greater with no unresolved F grades. If these criteria are not satisfied, a Midshipman is considered deficient. A fourth class Midshipman is permitted to adjust to the academic and regimental requisites through a special scale of academic requirements that increase in each succeeding trimester of plebe year.

Midshipmen who do not fully satisfy the proficiency requirements may be placed on academic warning, academic probation or in some other more significant deficiency status by the Dean. Normally, a Midshipman who is academically deficient has one grading period to regain proficiency.

A Midshipman failing to meet the academic standards of the Academy may be recommended by the Dean to the Superintendent for disenrollment. The Academic Dean prepares his recommendation in conjunction with the Academic Review Board.

Academic Proficiency

In order to continue in their educational programs, midshipmen must make satisfactory academic progress towards earning their degrees, i.e., remain proficient. A midshipman is deemed **academically proficient** for a term if the student's CGPA is at least a 2.00, if the term GPA is also at least a 2.00, and if there are no F's earned that term. Proficiency is defined as both proficiency in academic coursework, and proficiency towards earning a USCG Merchant Mariner's Credential and STCW endorsement to that credential.

Academic Deficiency Status

The Office of the Academic Dean and Provost analyzes all grades at the conclusion of each term and each sailing period. A midshipman will be assigned an **academic deficiency** status if the student does not meet the

criteria in Table 2 below. The deficiency codes assigned to Midshipmen are tracked by the Registrar's Office. Academic deficiency status has consequences for retention, especially when students are in a deficient status for successive terms.

Academic Warning (**AW**) is the least serious deficiency status, followed by Academic Probation (**AP**), and then Referred for Disenrollment (**RFD**) (the latter resulting in an Academic Review Board, see below).

Midshipmen are notified by the Office of the Academic Dean and Provost, via email, of RFD status immediately after term grade analysis is completed. AW or AP status is also indicated in the student information system where midshipmen view their grades.

1. Midterm Grades for Fourth Class Students

Faculty members submit mid-term grades for Fourth Class students each term. The Registrar's Office prepares a grade report for each student which shows all course grades. The grade reports are distributed to students by their mentors. The Office of the Academic Dean and Provost analyzes the grades and assigns deficiency codes, where applicable. While these codes do not remain on the student's permanent transcript, the intent is to put the student on alert of a possible deficiency status at the end of the term if grades are not improved. Students may also be subject to appropriate restrictions described in this handbook.

Other Factors Leading to Designation as Referred for Disenrollment (RFD)

In addition to the above indicated cases that lead to the designation of RFD, a midshipman may be placed in this status as a result of any one of the following:

- Failing the Introduction to Nautical Science course (NAUT101)
- Failing the Introduction to Marine Engineering course (ECME101)
- Violating proficiency requirements for three or more consecutive terms
- Failing the same required course two times
- Failing two or more courses during either a residential or sea term
- Failing to achieve a CGPA of at least 2.00 in the major
- Failing a sequence of required courses; e.g., math, English, or physics, either within one term or over different terms
- Failing to achieve a combined GPA of at least 2.00 for the two sea terms
- Violating the Terms of Probation (TOP) that were in effect during the current term
- Failing to make sufficient academic progress as determined by the Provost

The Sea Year and Satisfactory Progress Towards the Degree

The Academic Review Board (ARB)

There are nine different times during the academic year that grades are analyzed for proficiency: following each term, following each sailing period, and after the annual summer school session. Immediately following the academic analysis of the grades, midshipmen who are deemed to be RFD are referred to the Academic Review Board (ARB). The ARB convenes at the call of the Provost and consists of the following members: Academic Dean and Provost, Commandant, Assistant Dean for Academic Affairs, Academic Department Heads, Head of Professional Development and Career Services, Director of the Academic Center for Excellence, Director of Admissions, and Director of Waterfront Activities. Members may designate alternates to act on their behalf at ARB meetings. The Superintendent, at his or her discretion, may attend meetings of the ARB.

For ARBs following the sailing periods, midshipmen who neglect to submit the coursework for two or more Sea Year courses by the deadline will be declared RFD and subject to an ARB which may be convened prior to the regular grade analysis. Additionally, if a midshipman fails a Sea Year course for which a repeat must occur on a non-USMMA waterfront asset, it may not be possible to rectify the failing grade and the midshipman will be referred to the ARB for lack of progress in the degree program.

Members of the ARB are apprised, in advance, of the names of students who will be reviewed. At the actual meeting, the members review the academic history of each student, as presented by the Assistant Dean for Academic Affairs. The Academic Department Heads each provide details about each "D" and "F" grade. Board members or their designees make available to the Board any additional information that is pertinent to the academic, regimental, Sea Year, athletic and student life aspects of the midshipman's performance. Each case is considered individually, and the Provost requests deficiency recommendations from members of the Board. All members, except the Provost and

Assistant Deans, vote on each recommendation; ties are broken by the Assistant Dean for Academic Affairs. At the conclusion of the Board, the Provost considers all recommendations and makes a final decision in each case.

The ARB may recommend that a midshipman be required to change majors within the student's academic department if it is deemed that this will result in an improved level of academic success.

It is within the purview of the ARB to make the following recommendations: Academic Probation, Continued Academic Probation, Setback, Suspended Setback, Deferred Graduate, Suspended Disenrollment, and Disenrollment. Each is a deficiency status with implications for subsequent terms:

Academic Probation (AP): The midshipman will remain at the Academy in the status of Academic Probation with academic proficiency requirements (Terms of Probation) established.

Continued Academic Probation (CAP): Students who were on Academic Probation during the current term will remain at the Academy and continue on Academic Probation status with academic proficiency requirements (Terms of Probation) established.

Setback: The midshipman will be placed on official Leave of Absence status and will resume his or her studies during a future term as specified by the Provost. They will be subject to formal Terms of Probation (TOP) as conditions of retention. For record keeping purposes the midshipman will be noted as a member of the setback class, but if the midshipman fails to meet the TOP, the midshipman will be noted as disenrolled from the student's original class. If the student successfully meets their TOP, the midshipman will normally be designated as a member of the following class year upon return. In addition, a midshipman returning from setback will be subject to all provisions of the *Academic Policies Handbook* in effect for the new class year.

Suspended Setback (SS): The midshipman will remain at the Academy under explicit Terms of Probation in regards to GPA, CGPA, and course grades. If the midshipman meets the conditions of the terms of probation, he or she will continue on at the Academy. If the midshipman is in deficiency status at the end of that term and/or does not meet the Terms of Probation, he or she will be referred to an ARB for violation of terms

Deferred Graduate (DG): A midshipman of any class year may be designated a Deferred Graduate. Special requirements relating to either the residential or Sea Year curriculum, to be completed following graduation of the midshipman's class, are established. A midshipman may be denied authorization to present for the USCG license examination as a result of being placed in this status.

Suspended Disenrollment (SD): The midshipman may remain at the Academy in the status of Suspended Disenrollment with Terms of Probation established for the next two terms that, if not met, may result in disenrollment. A midshipman may be placed on Suspended Disenrollment for continuous violation of academic terms of probation, or in cases relating to performance at sea, as reflected in officer evaluations.

Disenrollment: The midshipman will be disenrolled from the Academy.

Terms of Probation

Every case heard before the Academic Review Board will result in a Terms of Probation (TOP) letter signed by the Provost. In all cases, the terms will require that the student be academically proficient for the next two terms: GPA/CGPA > 2.00 and no earned F grades. The Provost may designate additional conditions, including additional academic terms of probation. The terms of the TOP letter are binding in all cases, and neglecting to sign the TOP letter does not release the student from meeting all terms.

Students who do not satisfy all Terms of Probation, as stated in the letter, may be disenrolled with no right of appeal.

Deficiency Status: Sailing Period and STCW Competences

1. The STCW Council

The STCW Council is a sub-committee of the ARB. Its purpose is to monitor midshipmen's progress toward the issuance of a USCG Merchant Mariner's Credential and STCW endorsement to that credential.

It is the responsibility of the Council to determine whether the competences required for licensure and certification are being earned in a timely manner, both in residential courses and during the sailing periods. A midshipman who has received multiple adverse (< 2.0) shipboard evaluations relating to application of STCW training at sea, and/or who fails to demonstrate proficiency in those competences that relate to Personal Safety and Social Responsibility aboard ship may be referred to the STCW Council.

2. Failure of an STCW Competency

When a midshipman has failed two or more attempts to pass an STCW assessment after all "normal and reasonable" opportunities to do so, the Department Head shall notify the Office of the Academic Dean and Provost and the STCW Council about the midshipman's failure of the assessment and, consequently, failure of the course. The STCW Council shall review the case regarding the student's status within the Approved Program.

The Council may make recommendations to the Provost. The recommendations may suggest that the matter be resolved in the next resident term, or during the next Sea Year assignment. The recommendation may also suggest disenrollment, academic setback, deferred graduation, conduct probation, and/or counseling.

Appealing the Decision of the Recommendation for Disenrollment

Students are contacted via email after the conclusion of the ARB and informed of the Superintendent's decision. Those recommended for disenrollment may request an appeal, unless specifically prohibited from doing so in a prior TOP letter.

In the event that the midshipman chooses to appeal, the student will be directed to schedule an Appeal Hearing by contacting the Office of the Superintendent within 48 hours of being notified of their status. The Office of the Superintendent will then provide the student with further instructions regarding the appeal. The Appeal is heard before the Superintendent, Provost, and Commandant, or their designees. The midshipman may prepare a formal statement which includes an explanation for the academic deficiencies and a plan for future academic success, and may present statements of support from professors, staff, and mentors. The personal statement and letters of support must be submitted to the Office of the Superintendent by the deadline specified in the instructions. All letters must be submitted by the student; letters submitted directly by others will not be accepted by the Office of the Superintendent.

At the actual Appeal, the midshipman appears alone before the Committee, and is informed immediately afterwards by the Superintendent of the decision. If the Superintendent decides not to disenroll the Midshipman, then, within a few days, the Provost will issue a formal letter outlining the decision, including conditions and the Terms of Probation. The midshipman must sign the letter acknowledging receipt and understanding of the TOP, and retains a copy for his or her records.

Midshipmen who are setback, and who leave the Academy premises before signing the TOP letter, are responsible for contacting the Office of the Academic Dean and Provost to procure the letter. Non-receipt of the letter will not be deemed a valid reason for failing to meet any of the conditions for return to the Academy. Failure to comply with the conditions for return, as outlined in the TOP letter, will result in the student not being cleared for return to resume his or her studies with the next class year. The student shall be asked to resign from the Academy. If the midshipman does not respond to the call for resignation, the student will be disenrolled. The Superintendent is the final authority in all academic disenrollment cases referred by the ARB. No decision may be appealed to a higher authority.

Conditions of Setback

The decision to send a midshipman on a setback is made in the interest of strengthening the student's academic record. The Office of the Academic Dean and Provost assesses all grades earned up to that point, and designates the optimal term for return to the Academy. Students returning from setbacks may be required to repeat all academic courses and all STCW competencies in deficient courses. All grades of record will be the grade earned upon repeating the course. Returning fourth classmen may be designated as Plebe Candidates, upon the recommendation of the Commandant. They may be required to participate in Indoctrination and will repeat all requirements applicable to the new class year.

Often, the Provost will direct a midshipman on setback to take a specific course or courses at another institution. The midshipman will be required to earn a minimum grade of "C" in each course. At times, the designated course is intended to strengthen the student's understanding of a subject already failed; therefore, the outside course will not be the basis for an Exemption, and the course must be repeated when the student returns to the Academy. In particular, the Math and Science Department will consider granting an Exemption only in those cases where a pre-approved two-course sequence is completed at another institution.

Occasionally, a midshipman on setback will be directed to take courses which will earn an Exemption at the Academy, in accordance with the procedures detailed earlier in this handbook. Grades and credit hours earned elsewhere do not transfer; the student may be exempt from taking the equivalent course at the Academy upon completion of the requisite paperwork.

In all cases, successful completion of outside credits, as mandated by the TOP letter, will be a condition of return and setback to the next class year. Students must seek prior approval from the academic department for coursework completed elsewhere. At the conclusion of the course(s), students must provide an official copy of the transcript from the other institution in order to satisfy the Terms of Probation and/or to procure exemption credit. The official transcript must be sent directly to the Academy's Office of the Registrar. Faxed copies will not be accepted.

Midshipmen returning from setback may be required to purchase a newer model laptop before or during their tenure, at the discretion of the Department of Information Technology.

Students returning from a setback due to academic deficiencies will be placed on Academic Probation for at least two academic terms. These Terms of Probation mandate, at a minimum, that the student earn a GPA and CGPA > 2.000, and passing grades in all residential and/or Sea Year courses. Additional conditions may be specified.

Failure to satisfy the Terms of Probation in any of the probationary terms will constitute a violation of the TOP, and may result in disenrollment.

A midshipman placed on a probationary status by the Provost at the end of a resident term immediately prior to assignment to sea training shall be required, at a minimum, to:

1. Have no "Adverse" ratings on the *Ship's Officers' Review of Midshipman Performance* form
2. Have no failing grades in Sea Year courses
3. Have a GPA for the sea period and CGPA ≥ 2.00

Special Leave Status: Compassionate Setback

Midshipmen who are progressing towards the degree in an academically proficient manner and are in good standing with the Regiment may request a leave of absence for extenuating personal reasons through the Compassionate Setback Committee. An official request for leave of absence should be submitted to the Director of the Academic Center for Excellence. Supporting documentation, such as a physician's or counselor's statement, should be attached, as well as a plan for completing degree requirements.

The Compassionate Setback Committee consists of the Commandant, the Head of the Office of Health Services, the Director of Professional Development and Career Services, and is chaired by the Director of the Academic Center for Excellence. The Committee will convene to discuss the merit of the setback request and make a recommendation to the Superintendent for consideration of the request. The Superintendent will inform the Compassionate Setback Committee of his or her decision regarding the request. If approved, the midshipman must receive formal notification of approval before the compassionate setback is considered official. The approval will specify conditions for return as well as grading policies for the current term, if applicable. See DM202 Setbacks.

Sports and Extracurricular Activities Restrictions

Midshipmen on academic deficiency status (such as, Academic Warning, Academic Probation) may be restricted from participating in any officially organized extracurricular activities, including intercollegiate athletic teams. Exceptions to this rule occur on a case-by-case basis and are decided by the Office of the Academic Dean and Provost in collaboration with the Athletic Director and the Director of the ACE. However, such midshipmen may participate in intramurals.

Scholastic Recognition

Midshipmen may earn Scholastic Quarterly Honor Stars on the following basis:

1. Gold Stars are awarded to all Midshipmen who achieve a quality point average of 3.500 or above for one trimester with no course failures during that term.
2. Silver Stars are awarded to Midshipmen who achieve a quality point average of 3.250 to 3.494 for one trimester with no course failures during that term.

Scholastic Honor Ribbons for Outstanding Sea Year Performance are given as follows:

An Honor Ribbon with Bronze Star is awarded to Midshipmen with a quality point average of at least 3.500 for the sea year, no failing grades and above average Sea Year performance reports. An Honor Ribbon is awarded to Midshipmen with a quality-point average of 3.250 up to and including 3.494 for the Sea Year, no failing grades and above average Sea Year performance reports. Midshipmen who have earned Sea Year ribbons for the first sea period and become eligible for such ribbons after the second sea period wear a silver star with the ribbon in lieu of a second bronze star; or wear a bronze star if only a ribbon was previously awarded.

Graduation Honors

Scholastic Honors at graduation are awarded on the following basis:

1. *Summa Cum Laude* - A Midshipman must have a cumulative average of at least 3.750 and finish in the top three percent of the graduating class.
2. *Magna Cum Laude* - A Midshipman must have a cumulative average of at least 3.500 and be in the upper ten percent of the graduating class.
3. *Cum Laude* - A Midshipman must have a cumulative average of at least 3.000 and be in the top 20 percent of the graduating class. Honors designations on the diploma will be based on the cumulative quality-point average at the completion of senior year.

Academic Loads

All Academy undergraduate students are considered full-time students. Midshipmen must carry the trimester credit hour load required by their academic curriculum for each resident trimester and Sea Year period. Special circumstances may require that a Midshipman take less than the normal load. A Midshipman may "overload" and take additional credit hours in a trimester, but this will not reduce the need to take the normal load in all future trimesters. Consent of the Dean is required to overload.

Failed Courses

A Midshipman who fails a course must either repeat the course in its entirety (the preferred method of resolving a failure) or undertake a remedial program.

Exclusion from Extracurricular Activities

The Academic Dean may restrict any Midshipman not academically proficient from participation in sports or extracurricular activities.

Setbacks

A Midshipman may be set back to a succeeding year group by the Superintendent upon the recommendation of the Academic Dean. Setbacks are granted only when there is a compelling medical, compassionate or academic circumstance.

Advanced Standing

Federal law requires that a Midshipman complete a four-year course of study at the Academy. Under exceptional circumstances, a Midshipman who has finished at least one full year of the program is proficient under the academic standards prescribed in the *Academic Policies Handbook*, and who resigns and later reapplies for admission, may be granted advanced standing. In such cases, the coursework done at the Academy prior to resignation and subsequently at other colleges and universities will be considered in assigning a returning Midshipman to an appropriate year group. Upon reentry, the Midshipman is bound by the curriculum, catalog, and regulation in effect at the time of return.

POSSIBLE ADVANCED STANDING FOR RETURNING FORMER MIDSHIPMEN

Under certain circumstances, a midshipman who resigns and is later readmitted to the Academy may receive credit for the time spent at the Academy in the first enrollment. This section contains the policies of the Academy in determining whether a former midshipman who returns is eligible for advanced standing. Advanced standing recognizes previous attendance as creditable towards the statutory requirement that a midshipman be enrolled for four years.

A. Eligibility

1. A midshipman is considered eligible to return with advanced standing if he or she completed at least one full year of academic studies and were academically proficient at the time of resignation. Proficiency is defined in the Tables presented earlier in this document.
2. A midshipman who leaves the Academy for more than two years is not eligible to return with advanced standing unless she or he was engaged in activities relevant to the Academy program during the period of absence. Each case will be considered on its own merits.
3. No returning midshipman will be eligible for advanced standing after an absence of more than three years.

B. Placement with Advanced Standing

Subject to the provisions in section B, above, the record established by the midshipman in his or her first enrollment will stand and will be considered in assigning a midshipman to a class year group. Course exemptions through transfer credits from other academic institutions and any credit received through departmental examinations will also be considered. Coursework presented for exemption is subject to the policies previously outlined in this instruction, and must be presented to the Registrar within two weeks of return to the Academy.

C. Applicable Regulations

Upon re-entry, a midshipman is bound by the curriculum, catalog, academic policies and statutory provisions in effect for the class to which the student is readmitted. A midshipman will not be commissioned, receive a diploma, a USCG license or any other official graduation document unless all requirements as stated in this handbook, the catalog, or other official issuance of the Academy, are met.

Limit on Credit Received by Exemption and Examination

A maximum of 12 credit hours required for graduation may be applied to a midshipman's record as a result of course exemptions satisfied by Advanced Placement examination, International Baccalaureate examination, departmental examination, or transfer from another accredited institution of higher education. Specific departmental policies are discussed below.

Credit for Courses Completed at other Educational Institutions (Exemptions)

College level work may be accepted for transfer and substituted for a required course as an Exemption. Courses taken prior to attending the Academy and successfully completed with a grade > "C" will be considered for exemption if the course is equivalent to a required course in the Academy's curriculum. The exemption proposal must commence in the Registrar's Office, which can verify official transcripts, and Advanced Placement and International Baccalaureate scores. The proposal will then be presented to the appropriate academic department head. For college courses taken elsewhere, the proposal must be supported by copies of the catalog description of the course, the course syllabus and outline obtained from the college or university, and a listing of the

texts/references that are used in the course. Final approvals for all exemptions will be granted by the Office of the Academic Dean and Provost.

Neither the credit hours nor the grades earned are transferable. Courses accepted for exemption do not affect the student's Grade Point Average at the Academy. Except for first term plebe candidates, a midshipman may not apply for exemption from a course after the student is enrolled in the comparable course at the Academy. First term plebe candidates may apply for exemptions up to the end of the Add/Drop period.

1. Course Exemptions Based on Departmental Examination

Departmental examinations as a basis for exemption may be administered where non-academic experience appears to provide a basis for successful completion of such an examination. A departmental examination may also be given where transfer credit for a course has not been granted. The academic Department Head must approve all requests for departmental examinations. A special examination to demonstrate proficiency in a course will not be authorized after a midshipman registers for the course. Likewise, a special examination for purposes of exemption will not be authorized after a midshipman has failed the Academy course.

2. Foreign National Midshipmen

A foreign national Midshipman may petition the Office of the Academic Dean and Provost for permission to waive a senior level Naval Science course.

3. Physical Education Courses (No Exemptions)

A midshipman who, because of temporary physical limitations, is required to withdraw from a Physical Education course must satisfy the course requirement before a sea period or graduation.

4. Course Exemptions for Humanities Courses

A midshipman may apply for an exemption from Composition and Literature (LITR101) on the basis of previous completion of a college English composition course (with a grade of an A or B) and after successful performance on the Humanities Department writing diagnostic and exemption examinations. Students with the requisite college credit who have met the department's standard on the exemption examination may then apply to the Department Head for exemption from the course. The Humanities Department will not grant exemptions for dual enrollment or AP/IB classes.

5. Course Exemptions for Math and Science Courses

A midshipman may apply for exemption from a course in the Department of Math and Science on the basis of either an Advanced Placement or International Baccalaureate examination or completion of comparable college work prior to arrival at the Academy.

- A. A midshipman may apply for an exemption from a course in the Department of Math and Science on the basis of previous completion of a comparable college course or courses. If the course for which an exemption is being applied is part of a sequence and the course that precedes it was taken at the Academy, then exemption shall be granted only if a grade > C was earned in the preceding course. For mathematics courses, the midshipman will also have to successfully pass a departmental examination.
- B. To receive exemption based on Advanced Placement or International Baccalaureate examination, a midshipman should achieve at least the scores below. No other exemptions based on AP examinations will be granted.
 - I. CHEM 100: 4 on AP Chemistry or 5 on IB Higher Level Chemistry
 - II. MATH 101: 4 on AP Calculus AB
 - III. MATH 130: 4 on AP Calculus BC
 - IV. MATH140: 4 on AP Calculus BC
 - V. MATH200: 4 on AP Statistics
 - VI. PHYS 110: 4 on AP Physics C: Mechanics

6. Course Exemptions for International Baccalaureate Degree Work

Exemptions for coursework completed while earning the International Baccalaureate may be granted in accordance with the above departmental policies. Only scores of 6 or 7 will be considered for possible exemption, unless otherwise specified.

Class Attendance and Excused Absences

Attendance at all classes at the Academy is required unless a Midshipman is ill, in a special duty status, or otherwise

granted leave or liberty by the Commandant.

Coursework Taken at Other Institutions

The Academy does not normally award transfer credits for courses taken elsewhere. However, a student who has completed equivalent coursework may apply for exemption from courses at the Academy. No student may exempt from more than 12 credits. Courses *may* be evaluated and *may* be deemed as an appropriate substitute for an existing course. The Midshipman *may* be required to substitute an appropriate course to complete the number of credits required for a term. All decisions made by the appropriate academic department are final.

Prior approval for a course to be used for an exemption is required for all but incoming 4th class midshipmen. Midshipmen should apply for an exemption at the start of an academic year, or immediately following a leave of absence. All petitions for course exemption require an official transcript and a course description be provided to the Registrar and appropriate department heads for evaluation.

Quality points, or grade for work accomplished elsewhere, are not included in the Midshipman's Academy academic record. A maximum of twelve credits, including Advanced Placement (AP) credits, may be posted to a Midshipman's record.

The Academy has a four-year residency requirement that cannot be shortened. There are no exceptions to this policy and its requirements.

Kings Point Scholar Program

The Kings Point Scholar Program affords Midshipmen an opportunity to explore a topic in depth beyond the degree to which it is represented in the curriculum. Midshipmen who wish to undertake a major research project through the Kings Point Scholar Program should obtain the sponsorship of a faculty member for their project. The Assistant Dean for Academic Affairs can explain the program in detail to interested students.

The research paper completed through the Kings Point Scholar Program should make an important contribution to the chosen field of study. The research papers are maintained by the Academy in its Library. Past topics have included oil pollution, deep ocean mining, sub-marine tankers and the German intermodal transportation system, and the cruise industry.

Completion of the Kings Point Scholar Program can satisfy a Midshipman's credit hour elective requirement for Marine Engineering and Marine Transportation majors, while Maritime Logistics and Security majors may apply the project as the Humanities elective.

Academic Advising

Each plebe is assigned a mentor, who is available through appointment to discuss a broad range of academic issues with a Midshipman.

There is a Midshipman academic officer in each company who is specifically responsible to work with students who are experiencing academic difficulty and to apply the various support systems to specific cases. The academic officers work closely with the Director of the Academic Center for Excellence (ACE). The ACE provides Midshipmen with the support they may need to achieve their goals and be successful in their educational pursuit. At the Center, Midshipmen can develop effective learning habits that will prove to be beneficial, not only during their time at the Academy, but during their Sea Year and beyond graduation as well. Faculty members and mentors can refer a Midshipman to the ACE when they have concerns about their academic performance. Midshipmen are also encouraged to seek help for self-identified problems and concerns that they feel might hinder their academic success.

Each Midshipman who comes to the ACE is given individual attention to create a personal success program based on his or her needs. In addition, through the Center, tutorial sessions may be set up for both group and individual sessions. The Center promotes effective, independent learning to achieve high academic goals at a school where good time management skills are essential to achieve educational success.

The Academic Board

The Academic Dean, Assistant Deans, heads of the academic departments, Commandant, Athletic Director, Director of the ACE, Director of the Waterfront, and Head, Department of Professional Development and Career Services comprise the Academic Board. The Board advises the Superintendent on all academic matters, making recommendations concerning academic policy, standards, honors and curriculum.

Privacy

The Privacy Act of 1974 and the Family Educational Rights and Privacy Act of 1974 prohibit the disclosure of educational records to other persons or organizations without written consent. Grade reports, transcripts and other information cannot be released to anyone, including parents, other academic institutions and employers, without such written consent. Notice of consent must be filed with the Office of the Registrar for each release of information.

Access to Academic Records

Midshipmen have access to their own academic records, and may request copies. These transcripts are "unofficial" copies and do not bear the impressed seal of the Academy. Official, sealed copies are not released to Midshipmen under any circumstances. An individual review of an official record maintained by the Office of the Registrar may be made by appointment. The Office of the Dean makes final decisions on questions arising from such reviews.

Graduation Rates

The following statistics indicate the rate of graduation at the Academy for classes of 2021 to 2025:

<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
81%	83%	72%	80%	76%

Academic Departments, Faculty, and Course Descriptions

Note: For all faculty listings in this section of the catalog, the year when a faculty member joined the Academy staff follows each name. Other information includes the individual's faculty rank, degrees earned, where obtained, professional licenses held, and military affiliation. In a department that includes more than one discipline, the faculty member's area of specialization is indicated.

Superscripts used in this listing are:

1. faculty member has received the Academy's Vice Admiral Gordon McLintock Award for Exemplary Leadership
2. faculty member has received the Academy's Sue Alice McNulty Award for Distinguished Teaching.
3. faculty member has received the Captain C.A. Prosser Award for Student Service.
4. faculty member has held command at sea of an unlimited tonnage vessel.

This list is current as of July 31, 2024. The courses and descriptions in this section are subject to change

Administration and Staff

Administrative titles at the Academy differ somewhat from those at many civilian colleges, but in essence the responsibilities that accompany the titles are the same. The Superintendent is akin to a college president and ultimately governs all aspects of Academy operations. The Deputy Superintendent is the principal executive for management controls. The Academic Dean and Provost is responsible for admissions, athletics, and the academic program. The Commandant of Midshipmen is akin to the dean of students and handles all Midshipmen affairs of a non-academic nature, including military organization, conduct and discipline. These officers comprise the Academy's senior staff, and are assisted by capable office personnel in the daily operation of the institution.

Board of Visitors

Public Law 291, approved by the 113th Congress in December, 2014, provides for an annual review of the Academy by Congress through a Board of Visitors of eighteen members who are appointed in January of each year. The Board consists of five individuals appointed by the President; one Senator appointed by the Vice President; two Members of the House of Representatives appointed by the Speaker of the House of Representatives; the Chairmen of the Commerce, Science, and Transportation Committee of the Senate and the Committee on Armed Services of the House of Representatives as ex-officio members; two Senators appointed by the chairman of the Commerce, Science, and Transportation Committee of the Senate; three Members of the House of Representatives appointed by the chairman of the House Committee on Armed Services; ; and the Commander of the Military Sealift Command, the Deputy Commandant for Operations of the Coast Guard, and the Chairman of the Advisory Board to the Academy as ex-officio members.

Academy Advisory Board

Public Law 453, approved by Congress in November 1980, establishes an Advisory Board consisting of not more than seven persons of distinction in education and other fields relating to the purposes of the Academy who serve without pay. The members of the Board visit the Academy at least once during the academic year at the call of the chairman. The board's purpose is to examine the course of instruction and the management of the Academy and advise the Secretary of Transportation, the Maritime Administrator, and the Superintendent of their findings.

Board of Directors

Senior members of the Maritime Administration Staff form the Maritime Education Training Executive Review Board (**METERB**), which serves as a Board of Directors advising the Superintendent on strategic and policy matters affecting the Academy.

Staff

Following each name is the year of joining the staff. Also listed are job title, degrees earned, where obtained, professional licenses, and military status.

The list starting on the next page is current as of June 1, 2026.

Office of the Superintendent

RADM Anthony J. Ceraolo, USMS (2023)

Superintendent

B.S., U.S. Coast Guard Academy
MPA, Harvard University - John F. Kennedy School of
Government M.A., United States Naval War College

Vacant

Deputy Superintendent

Vacant

Chief of Staff

Office of the Academic Dean

Dr. Johnathan Gajados (2025) Academic Dean/Provost

B.S., Georgetown University
M.A., University of Iowa Ph.D., University of Iowa

CAPT James R. Zatwarnicki Jr., USMS (2018)

Associate Dean for Faculty

B.S., State University of New York Maritime College
M.S., State University of New York Maritime College

Dr. Susan C. Comilang (2016)

Assistant Academic Dean for Academic Programs

B.A., Columbia Union College
M.S., Washington State University
Ph.D., George Washington University

CDR David Pulis (2010)

Assistant Dean for Support Services

B.S., United States Merchant Marine Academy
M.S., United States Merchant Marine Academy

Kourtney L. Avila (2022)

Executive Assistant to the Provost/Academic Dean

Academic Center of Excellence

CAPT Paul D. Acquaro, USMS (2012)

Director, Academic Center for Excellence

B.S., State University of New York Maritime College
M.S., New York Institute of Technology
Advanced Certificate, Brooklyn College License: Third Mate
Unlimited Tonnage Military: Lieutenant, USN Retired

Dr. Jennifer Albert (2019)

Deputy Director, Academic Center for Excellence

B.A., Long Island University Southampton
M.A., St. John's University
Ph.D., Capella University

Kristin Delury (2022)

*Educational Technology Specialist, Academic Center for
Excellence*

M.S., CUNY School of Professional Studies

Taleen Stroud (2022)

USCG Licensing and Credentialing Officer

B.S., University of Wyoming

Office of Institutional Assessment

Dr. Lori Townsend (2016)

Director

B.S., Old Dominion University
MBA, Strayer University
Ed.D., Vanderbilt University

Office of the Registrar

Lisa Jerry (2003)

Academy Registrar

B.S., New York Institute of Technology
M.S., New York Institute of Technology

Maribeth Widelo (2009)

Academy Assistant Registrar

B.A., Assumption College
M.A., Emerson College

Arkadiy Khaimov (2025)

Institutional Research Assistant

Ann Aberger (2012)

Registration Assistant

Bland Library

Dr. Donna Selvaggio (2015)

Chief Librarian

B.S., Regents College
M.L.I.S., University of Oklahoma
Ph.D., Capella University

Jan Edmiston (2017)

Technical Services Librarian

B.S., U.S. Naval Academy
M.A., St. Louis University
M.A., University of St. Thomas (Houston)
M.S., Walden University
M.L.S., University of North Texas

LT Jeremy Lauber, USMS (2017)

Reader Services Librarian

B.S., Stony Brook University
M.L.S., Long Island University

Department of Information Technology

Vacant

Director, Department of Information Technology

Department of Waterfront Activities

Richard J. Cain (1997)

Director of Waterfront Activities License: 100 ton near coastal

Scott McCormick
Deputy Director, Waterfront Activities and Training

Department of External and Congressional Affairs

Michael O'Hagan (2023)
Director of External Affairs
B.A., Rutgers University

Veronica Cassidy Barry (2006)
Public Affairs Officer
B.S., Niagara University
Career Development Certificate, University of Wisconsin

Vacant
Public Affairs Specialist

Office of Admissions

CDR Michael Bedryk, USMS (2016)
Director of Admissions
B.S., Saint John's University

CDR Keith L. Watson, USMS (2015)
Assistant Director of Admission/Director of Financial Aid International and Western Regional Recruitment Specialist
B.S., Excelsior College
Professional Certificate, University of California, Berkeley

LCDR Joseph Becker, USMS (2013)
Recruitment Specialist
B.S., SUNY Maritime College M.S., SUNY Maritime College
License: Third Mate, Unlimited Tonnage, All Vessels Military: LT, USNR

LCDR Tina T. Schoggers, USMS (2007)
Recruitment Specialist
B.P.S., New York Institute of Technology M.S., New York Institute of Technology

LT Olivia Alexander, USMS (2022)
Recruitment Specialist
Professional Degree, CUNY School of Law

LT Valerie Gary (2022)
Recruitment Specialist
B.S., St. John's University
M.S., St. John's University

Lauri D'Ambra (2018)
Financial Aid Specialist Olivia Alexander Admissions Assistant

Shifa Santiago
Admissions Assistant

Office of Academy Financial Management

Vacant
Academy CFO

Karen Douglas (2019)
Supervisory Financial Management Specialist

Office of Human Resources

Dionne Kettl
PHR, SHRM-CP
Director of Human Resources

Vivian Baierwalter (1985)
Human Resources Specialist

Tricia Lafontant (2018)
Human Resources Specialist
B.A., Rutgers University

Office of Procurement Vacant

Chief of Contracting Office
Vacant

Carmen Feliz (2010)
Contract Specialist
A.A., Nassau Community College
B.A., SUNY Old Westbury

Amit Narine (2017)
Contract Specialist
B.S., City University of New York

Daphnee Ravilus (2021)
Contract Specialist
B.A., City University of New York
M.S., Long Island University

Office of Administrative Services

John Curran (2011)
Administrative Officer
B.S., John Jay College
M.S., American Military University

Department of Public Safety

Jeffery Thomas (2016)
Director of Public Safety
B.A., University of Maryland Military: SFC, USA (Ret)

Joseph Chiafari (2019)
Safety and Occupational Health Specialist

Department of Public Works

Steven Flangan (1990)
Facility Management Officer

Office of Capital Improvement

CAPT Theodore Dogonniuck, USMS (2010)
Director
B.S., Cornell University
M.S., Columbia University Military: Major, USMCR
License: Professional Engineer - New York State

LCDR, Robert DiTrioia, USMS (2010)
Civil Engineer
B.S., University of Maryland Military: Capt, USAF

Office of the Commandant of Midshipmen

CAPT Mikel Stroud, USMS (2016)
Commandant of Midshipmen
B.S., University of Wyoming
M.A., Naval War College Military: LtCol, USMC (Ret)

CDR Andrew McCarthy, USMS (2013)

Deputy Commandant of Midshipmen

B.S., SUNY Maritime College

License: Third Mate, Steam and Motor Vessels, Unlimited

Military: CDR, USN

CDR James Schutta, USMS (2020)

Regimental Operations Officer

B.S., State University of New York (Albany)

CAPT Patrick Keane, USMS (2020)

Leadership Development Officer

B.A., Villanova University

M.M.S.D. Marine Corps University

M.O.S. School of Advanced Warfighting

LT Taylor Massey

Director of Music

CDR Stevens Frangos, USMS (2005)

Performance and Assessment Officer

B.S., U.S. Merchant Marine Academy

License: Third Assistant Engineer, Steam and Motor Vessels,

Unlimited. Military: CDR, USN

Frederick Sager (2006)

Head, Department of Health Services

B.S., New York Institute of Technology

M.P.S., New York Institute of Technology

LCDR Antoinette Waller

Food Service Officer

B.S., University of Woodbridge

LCDR Scott Miller, USMS (2018)

Battalion Officer

B.S., U.S. Merchant Marine Academy

M.S., Naval Postgraduate School

