



1 September 2015

TO THE CLASS OF 2019:

Welcome aboard! You are embarking upon a great adventure, one that will shape the rest of your life. My job is to see to it that the academic program we offer you maintains and builds upon the reputation for excellence sustained for more than a century by Massachusetts Maritime Academy.

This booklet contains the information you will need to structure your academic program for the next four years. Become familiar with its contents, and retain it for future reference.

The academic programs at Massachusetts Maritime are not easy, nor are they intended to be. In addition to taking a significantly greater course load than is required at the average civilian academy, you will face the rigors of the sea and the challenges posed by our unique regimental system. Together, they will test your mind and your spirit, and they will give you opportunities for personal growth that you have probably never enjoyed before. If the challenges are great, so too are the rewards: at the end of your academic program, you, like MMA graduates for more than a century before you, will face post- academy life uniquely prepared for success at sea or ashore in a wide range of exciting and prestigious careers.

If you encounter academic problems, be sure to ask for help as soon as possible. Every individual who enters MMA has the potential to become a graduate. The path to graduation may vary, but one significant common denominator is that each student must want to succeed and develop the necessary skills to succeed. We are committed to your success. But you have to help us to help you by taking full advantage of the support measures available to you:

- All of your professors schedule office hours, published in their course syllabi, when they are available to you for advice and extra help should you need it. They want to help you.

- Tutoring is available in basic skills and specific academic subjects during the academic week. It can be arranged through the Academic Resources Center (ARC) on the third deck of the ABS Information Commons.

- Your Company Officer and cadet officers can advise and counsel you on academic difficulties.

- Should you be designated with a learning disability, ensure that you converse with Dr. Tishkevich regarding accommodations which can be provided.

Finally, both the Registrar, Commander Michael Cuff, and I welcome you to come by our offices to discuss any aspect of your academic program.

Please remember that desire plus effort equals success. Welcome to the Maritime family. I look forward to getting to know each of you. I wish you good luck, and in the words of the old seafarers' toast, *Fair winds and following seas!*

A handwritten signature in black ink, appearing to read 'Bradley K. Lima', is written over a light blue circular stamp.

Captain Bradley K. Lima  
Dean & Vice President of Academic Affairs

## **Academic Programs**

Massachusetts Maritime Academy is a special mission college of the Massachusetts state university system offering a curriculum leading to seven degrees accredited by the New England Association of Schools and Colleges. The following degrees are awarded: Bachelor of Science in Marine Transportation, Bachelor of Science in Marine Engineering, Bachelor of Science in Facilities Engineering, Bachelor of Science in Energy Systems Engineering, Bachelor of Science in International Maritime Business, Bachelor of Science in Marine Safety and Environmental Protection, and Bachelor of Science in Emergency Management.

## **Academic Information**

The Academy's curricula are continually evolving in response to changes in the maritime industry and its associated industries. The Academy works to provide an exceptionally high level of academic support for an excellent instructional program. Course requirements and offerings are routinely evaluated and revised by departmental committees, the Curriculum Committee, and the All-College Committee. The following information incorporates changes made through the 2014-2015 academic year and introduced for academic year 2015-2016. Federally mandated Standards of Training, Certification and Watchkeeping (STCW) may require curriculum changes which are not yet reflected in this handbook but which may affect students entering or returning to the Academy for the fall term.

## **General Academic Program Information**

Incoming students must declare a major as part of the admissions process. To the greatest extent possible, the selection of an academic program is voluntary; however, when necessary, students are assigned to a specific curriculum based on academic performance. The curriculum sequencing outlined beginning on page 18 of this document is to be followed for student's course of study at the Academy.

The academic year consists of two academic semesters of approximately fifteen weeks each and an intersession period during which qualified students are expected to complete one or more of the following: sea term, cooperative education placements, experiential learning opportunities, or courses through continuing education.

The academic program is contained within a five-day week, exclusive of holidays, with eight, fifty-minute classroom periods each day from 0800 to 1550. Laboratory sessions cover two or more periods, and some lectures extend for one and one-half periods.

Normally, each student is enrolled in five or six academic courses per semester. However, a student can retain full-time status by maintaining a minimum course load of twelve credit hours each academic semester. Students who do not successfully complete all of the courses designated up to the appropriate semesters in the curriculum for their major must understand that such failure may affect their class designation, their expected date of graduation, and their eligibility for financial aid.

To carry a semester course load in excess of 19.5 credits, a student must first consult his or her academic advisor and then obtain permission from the Academic Dean or his designee.

The curriculum for each major is designed to be completed in a systematic and sequential manner. Each semester, students are expected to enroll in courses appropriate to their academic standing and class designation.

Semester hour credits (also called "academic credits") are assigned to each course. In general, one classroom contact hour or two laboratory hours comprise one semester hour credit.

## **Majors**

The Academy currently offers students seven academic majors in Marine Engineering, Marine Transportation, Facilities Engineering, Marine Safety and Environmental Protection, International

Maritime Business, Emergency Management, and Energy Systems Engineering, each leading to the Bachelor of Science degree.

### **Marine Transportation**

This major prepares students for careers as licensed ship's officers, and allows them to easily transfer into management and operations positions within the Transportation, Intermodal, and Petroleum industries. The professional education aims to prepare cadets for eventual achievement of the Master Mariner level. Marine Transportation majors receive extensive theoretical and practical education in navigation, seamanship, ship construction, design, and damage control. Students train on Ship Simulators and sail in Academy training vessels. The opportunity to sail with a commercial company During the junior year provides an excellent chance to learn the industry first-hand, establish contacts, and better prepare students for graduation the following year. Students must qualify through examination by the United States Coast Guard as Third Mate, Steam and Motor Vessels of Unlimited Tonnage Upon Oceans, which requires satisfactory completion of STCW 2010 Manila Amendment requirements in order to graduate.

### **Marine Engineering**

This major prepares students for careers as licensed engineering officers in the United States Merchant Marine and for engineering positions in associated shoreside industries. Courses include Internal and External Combustion Engines, Electricity and Electronics, Auxiliaries and Main Propulsion Machinery, and the organization and operation of merchant vessel engineering plants. In addition, students study preventative maintenance, gain practical experience aboard ship in port and on the high seas, and work in laboratories to learn other skills in a variety of closely connected fields. The opportunity to sail with a commercial company on Sea Term III provides an excellent chance to learn the industry first-hand, establish contacts, and better prepare students for graduation the following year. Students must qualify through examination by the United States Coast Guard as Third Assistant Engineers, Steam and Motor, Unlimited Horsepower, which requires satisfactory completion of STCW 2010 Manila Amendment requirements in order to graduate. The ultimate aim is to prepare the student to eventually reach the level of Chief Engineer.

### **Facilities Engineering**

This major prepares students for the safe and economical operation of the variety of equipment found in industrial plants, office buildings, hospitals, power plants, and all facilities requiring heat, air conditioning, and electrical power. The program combines theoretical and applied engineering with special emphasis on practical engineering laboratories, compliance with environmental regulations, and resolution of environmental problems. The curriculum also includes three six-week co-operatives with industry providing valuable on-the-job experience often leading to employment opportunities. In place of one co-operative, a student may, after successfully completing MT-1121 STCW Basic Training, choose to cruise on the Academy's training ship to gain experience with a 15,500 SHP steam plant.

### **Energy Systems Engineering**

This program will prepare graduates for careers in the many varied segments of the fast growing energy industry in positions that provide for the engineering planning, design, and installation of various equipment and systems required for the generation, management and distribution of electrical power. ESE major courses include advance mathematic and applied engineering courses along with specific courses that address the design of alternative and renewable energy systems. The curriculum includes two summer ESE co-operatives. The ESE co-operative program provides the students with energy industry specific opportunities to gain first-hand industry knowledge, establish professional contacts, and develop future employment options. Students in the ESE program will be required to take the nationwide Fundamentals of Engineering (FE) exam in the spring semester of their senior year. Students in the ESE program can also take a USCG marine engineer license option. This option will require a fifth year to accommodate marine engineering coursework and will require three additional sea terms taken during the students' sophomore through fifth year winter sessions. During the spring semester of their fifth year, the license option students would take the USCG Third

Assistant Engineer's license exam. Professional accreditation by the Accreditation Board for Engineering and Technology (ABET) has been pursued for the ESE program.

### **Marine Safety and Environmental Protection**

This major prepares students for a wide range of professional positions in the fields of environmental protection, environmental management, and marine and industrial health and safety. Students receive a multi-disciplinary, integrated education in sciences, management, law, communications, and safety as related to environmental issues. Students participate in a two week Experiential Learning during the winter of their freshman year to become familiar with marine and terrestrial systems. They will also conduct an environmental or safety co-operative experience. Concentration sequences, elective courses, independent studies, and co-operatives enable students to tailor their academic program to meet individual interests and to gain valuable hands-on experience. In addition, opportunities exist for collaboration with the Woods Hole Oceanographic Institution and other local, state, and national organizations.

### **Emergency Management**

The primary purpose of the Emergency Management program is to serve the developing need for the emergency management professional to address natural and man-made disasters. These newly trained professionals will bring to the field a knowledge-based, scientific approach to proactive strategic planning. Career opportunities include public sector positions in disaster preparedness, response and recovery, and private sector positions in business continuity and risk management. In keeping with our mission to serve the maritime industry, the curriculum particularly emphasizes coastal and port security. In addition to in the three week Experiential Learning during the winter of their freshman year, this program requires two co-operative experiences.

### **International Maritime Business**

This major, recently accredited by the International Assembly for Collegiate Business Education (IACBE), prepares graduates to enter maritime shipping as business professionals. The program includes elements of international business, logistics and transportation. The curriculum includes introductory courses in vessel familiarization and engineering; cognate courses in such marine operations areas as marine safety and cargo operations; and courses in economics, accounting, business, and management. It also includes a capstone seminar in international maritime business during the senior year. This major requires experiential learning and two co-operative experiences.

### **Dual Degrees**

Students with a minimum cumulative grade point average of 3.0 may enroll in a dual-degree program with the permission of the department chairperson of each program. Interested students may pursue dual-degree combinations by presenting their proposals for approval by the chairperson of each department. In order to officially declare a dual major before the end of the third semester, a student must have completed either Calculus I or Applied Calculus. Note: Students considering a dual-major with engineering have only two dual-degree options: Marine Engineering with Energy Systems Engineering or Marine Engineering with Marine Transportation. Any student considering one of these options should consult with the Engineering Department chairperson prior to the end of the first academic semester. Students should expect to spend more than eight semesters in completing a dual-degree program.

### **Minors**

The Academy currently offers seven academic minors to enhance its graduates' preparation. A minor is a program of study of at least eighteen credits outside the major and normally begin in the junior year. Students electing to take a minor must consult the faculty coordinator for approval. Due to additional academic demands, students must have a cumulative grade point average of 2.5 or higher. To declare a minor prior to the junior year, a student must also have completed either Calculus I or Applied Calculus. A brief statement of the purpose of each minor is given below.

The **American Studies Minor** (Coordinator: Dr. Kathryn Mudgett) provides students with a greater understanding of American culture through the study of American history, foreign policy, literature, and artistic endeavor. The minor consists of six courses, three from the Humanities Department and three from the Social Science Department, following completion of the General Education requirements. The following courses are required: HU-5032 American Literature I: Colonial Period to Civil War; HU-5033 American Literature II: Civil War to Present; and two of the following courses: SS-3219 American History I: Origins to 1865; SS-3220 American History II: Civil War to Present; or SS-3211 American Maritime History. Finally, students must take one additional Humanities elective identified by “American” in the title and one additional Social Science elective from the following courses: SS-3217 Vietnam and U.S. Policy; SS-3218 Civil War & Reconstruction; or SS-3212 U.S. Foreign Policy Since 1945.

The **Energy Management Minor** (Coordinator: Professor George Howe) is offered by the Engineering department to Marine and Facilities Engineers to better prepare them for careers ashore and/or advanced studies in energy management, alternative and renewable energy, and power generation fields as they relate to the operation of large, complex facilities. Course requirements are SM-2218 Statistics or SM-3005 Probability and Statistics EN-3801 Energy Strategy and Management EN-3802 Energy Systems and a choice of three courses from a selected group of electives.

The **Facilities Operation Minor** (Coordinator: Professor George Howe) prepares students for careers ashore and/or for advanced studies in facilities management, stationary engineering (power generation), or wastewater treatment technology, as they relate to the operation of large, complex facilities. The minor is offered to students enrolled in either the Marine Engineering or Energy Systems Engineering major. Required courses are: EN-2222 Commercial Boilers, EN-3214 Municipal Wastewater Treatment, EN-4222 HVAC, and a choice of three courses from a selected group of electives.

The **Industrial Health & Safety Minor** (Coordinator: Professor Francis Veale) is offered by the Environmental Protection, Safety, and Emergency Management Department. To earn a minor in Industrial Health and Safety, students must complete each of the following required six courses. Required courses are: MS-XXXX Industrial Hygiene Auditing, EM-2111 Infectious Agents, EM-3212 Toxicology, EM-3213 Public Health Issues in Emergency Management MS-4271 Advanced Principles of Industrial Health and Safety SM-3111 Introduction to Radiological Materials.

The **International Maritime Business Minor** (Coordinator: Dr. Bani Ghosh) is offered to seagoing majors who have plans to start a shore-based career, for those interested in a graduate degree in business or law, and for those inclined towards entrepreneurial ventures. The IMB minor provides a basic business background with specialization in the shipping industry. Course requirements are: IM-2121 Principles of Accounting I and IM-2211 The Business of Shipping. Students must choose four of the following: Any course with an IM designation as long as prerequisites are met, MT-3252 Port and Terminal Operations Management , and SM-2117 Quantitative Methods for Management.

The **Law Minor** (Coordinator: Professor Ronald Carroll), offered by the Social Science Department, provides students with a range of understanding about the law through a diverse array of law courses. Students learn to study law from a variety of perspectives. Course requirements are any six from the following list of courses: SS-3221 Business Law; SS-3222 Real Estate Law; SS-3223 European Union Law; SS-3224 International Business Law; SS-3225 Admiralty and Maritime Law; SS-4122 International Law; MS-3142 Environmental Law; and/or SS-4132 Legal Issues in Emergency Management.

The **Marine Biology Minor** (Coordinator: Dr. Alan White) is offered by the Environmental Protection, Safety, and Emergency Management Department. To earn this minor, students must take the six following courses: MS-4305 Principles of Aquaculture; MS-4322 Marine Botany; MS-4329 Marine Mammals; MS-4333 Marine Invertebrate Zoology; MS-4334 Tropical Marine Ecology; and MS-4342 Marine Microbiology.

The **Marine Safety and Environmental Protection Minor** (Coordinator: Dr. Alan White) is offered by the Environmental Protection, Safety, and Emergency Management Department. To earn a minor in Marine Safety and Environmental Protection, students must complete each of the following four courses and choose to complete one of the two options (I-II). Required courses are: MS-3141 Coastal Ecology, MS-3142 Environmental Law, MS-3221 Oceanography, and MS-4263 Oil Spill Management. Choose one option: Option I: MS-4142 Human Health and Risk MS-4241 Environmental Risk or Option II: Students must choose two courses from the following: MS-4141 Coastal Zone Management MS-4264 Conservation Biology, MS-4305 Principles of Aquaculture, MS-4321 Biology of Fishes, MS-4322 Marine Botany, MS-4329 Marine Mammals, MS-4333 Marine Invertebrate, Zoology MS-4334 Tropical Marine Ecology MS-4341 Ecological Sustainability MS-4342 Marine Microbiology.

## **Concentrations**

With departmental permission, students with a cumulative grade point average of 2.5 or higher may enroll in a concentration of study. A concentration is a program of study of at least twelve credits within the student's major field but the courses of which are not prescribed in the major program. These courses are typically taken during semesters five through eight. The following concentrations are currently offered at Massachusetts Maritime Academy.

The **Marine Biology Concentration** elective sequence options are provided to give students enrolled in the Marine Safety and Environmental Protection major a series of electives focused on particular aspects of the field of marine biology. These normally begin in the first semester of the junior year and replace the regularly scheduled free and departmental electives: MS-4305 Principles of Aquaculture; MS-4321 Biology of Fishes; MS-4322 Marine Botany; and MS-4333 Marine Invertebrate Zoology.

# Massachusetts Maritime Academy Undergraduate Curriculum

## Major Programs

A major program at Massachusetts Maritime Academy includes approximately 128 credits of academic semester courses plus sea terms, experiential learning, and/or cooperative programs. Programs of study for each of the Academy's degree programs are shown in tables in a later section. Within each program the academic courses are designated in the categories of Major courses, General Education courses, and Support courses. This designation is included in the outline of the courses for each major program. Each major program includes at least two free electives. Students may choose to add more free elective courses or a minor or concentration sequence of elective courses.

## Major Courses

Approximately sixty credits in each major are designated as *Major* courses. These courses are professional in nature, related specifically to the degrees offered, and usually offered by the department of the major program.

## General Education Courses

Certain required courses in the Humanities Department, the Social Science Department, and the Science and Mathematics Department are designated as *General Education* courses. Some of these courses are specified, and some are selected by the student. Additional information is included in the "General Education Requirements" section.

## Support Courses

Courses that are outside of those designated as Major courses or General Education courses but which are required by a major program are designated as *Support* courses.

## Sea Terms, Cooperative Programs, and Experiential Learning

During August orientation, all first-year students are required to participate in a freshman mini-cruise. Students in license majors (Marine Engineering and Marine Transportation) are required to participate in four seagoing experiences, three aboard the USTS Kennedy (freshman, sophomore and senior years) and one aboard a commercial vessel (junior year).

Students in the Marine Transportation or Marine Engineering program must complete sea service, satisfying STCW and U.S. Coast Guard license criteria. Sea service is accrued by sailing on the USTS Kennedy and by sailing on commercial ships. Commercial shipping experiences must comply with USCG and MARAD requirements. Equivalent sea time calculations are in compliance with USCG program approval.

***Pre-requisites for Sea Term I include successful completion of:  
MT-1121 STCW Basic Training  
EN-1112 Engineering Systems and Safety  
SM-1111 Algebra and Trigonometry (C- or above for Marine Engineers).***

***Additionally, any student who falls below Academic Good Standing (GPA below 1.5) will be removed from Sea Term I and expected to take winter classes at MMA to strengthen their GPA.***

Students enrolled in shore-side majors must complete cooperative education placements as required by the program. The Office of Career and Professional Services will assist students in locating and setting up cooperative education placements. Grades from cooperative education placements are included in the calculation of the Cumulative Quality Point Average (CQPA). Six credits are earned for each successful co-op experience. Grades from sea terms and/or cooperative programs that are designated by the major department are included in the calculation of the average in the major.

Depending upon the major, students completing a non-license degree program may be required to

complete experiential learning opportunities. These opportunities introduce students to public service in organizations and working environments related to a specific program of study. Through instruction and practice, the experiences reinforce core concepts learned within the degree major. Students earn three academic credits for successfully completing experiential learning opportunities. The length of such opportunities varies and the credits for the experiential learning varies by major.

### **Non-Regimental Commuter Student Status**

MMA has always been a regimentally based student life program, with only 1% or 2% non-regimental commuter students on campus at any one time. Non-traditional students may seek to enroll in Facilities Engineering, Energy Systems Engineering, Marine Safety and Environmental Protection, International Maritime Business, or Emergency Management programs as non-uniformed, commuter students. Non-regimental commuter status is limited to non-traditional students with unique situations such as prior military service, a prior degree (associates or bachelors), or considerable life experience. To be considered for enrollment, a prospective non-traditional student must petition, in writing, the Dean of Enrollment Management. Acceptance will be determined, on a competitive basis, by a committee composed of the Dean of Enrollment Management, the chair of the applicable department, and the Registrar. Curriculum for non-regimental commuter students is adjusted slightly to remove the freshman sea term experience and possibly Sea Term related freshmen courses.

### **General Education Requirements**

Students at Massachusetts Maritime Academy participate in the General Education curriculum in order to succeed in the career positions they will move into following graduation. Moving beyond the bounds of the major requirements, students are encouraged to become lifelong learners through a balanced variety of courses. These courses contain enough depth and breadth in each of the areas of Mathematics, Science, Humanities and Social Science to afford the student with the skills necessary to function in an increasingly complex world. These fields of knowledge foster aesthetic appreciation, critical thinking, ethical analysis and evaluation, citizenship, and strong communication skills necessary for further self-development and personal inquiry. The courses which fulfill the General Education requirements for each department are described below.

#### **Humanities**

The required courses from the Humanities Department build skills in reading, writing, critical thinking, and communication; aesthetic and cultural awareness; and humanistic inquiry. In the first semester, students take a composition course that focuses on the skills necessary for logical presentation of thoughts and ideas in clear, concise language. In the second semester, students take Analysis and Interpretation of Literature, where they read, analyze, and interpret fiction, poetry, and drama for meaning, technique, culture and historical context, and significance as literary art. In addition, students are required to choose two electives in the Humanities: a literature course (Group I) chosen from a variety of genres, historical periods, and subject matter, followed by either another literature course or a non-literature course (Group II) chosen from a broad range of offerings within the department.

- GEHU1: HU-1111 English Composition or HU-6012 Advanced Expository Writing (with permission of the department chair)
- GEHU2: HU-1222 Analysis and Interpretation of Literature
- GEHU3: Select one course from Humanities Group I.
- GEHU4: Select either one course from Humanities Group II or a second course from Humanities Group I.

#### **Humanities Group I**

- HU-5021 Literature of the Sea
- HU-5022 Literature and Film
- HU-5023 Irish Literature
- HU-5024 Shakespeare Tragedies and Comedies
- HU-5025 Short Stories



HU-5026	Literature and Mythology
HU-5027	Literature of the Supernatural
HU-5028	Drama
HU-5029	Contemporary Literature
HU-5030	Poetry
HU-5031	War Literature
HU-5032	American Literature I: Colonial to Civil War
HU-5033	American Literature II: Civil War to the Present
HU-5034	Writers of the American South
HU-5035	American Theater
HU-5036	Survival Literature
HU-5038	Moby Dick
HU-5039	Detective Literature
HU-5090	Special Topics: Humanities Group I

### **Humanities Group II**

HU-2141	Spanish I
HU-2242	Spanish II
HU-2341	Elementary Chinese I
HU-2342	Elementary Chinese II
HU-2441	German I
HU-2442	German II
HU-5037	Discipline and Punishment
HU-6012	Advanced Expository Writing
HU-6051	Philosophy
HU-6054	Ethics
HU-6055	Introduction to World Religions
HU-6056	The Brain, Narrative, and the Self
HU-6057	Composing in New Media
HU-6060	Creative Writing Seminar: Poetry
HU-6061	Creative Writing Seminar: Fiction and Non-Fiction
HU-6062	Writing in Style
HU-6071	Public Speaking
HU-6072	Business Communications
HU-6073	Technical Writing
HU-6080	Introduction to Art
HU-6090	Special Topics: Humanities Group II

### **Social Sciences**

The required courses from the Social Sciences Department strive to make students aware of the richness of their civilization and society and prepare them to think critically about their world. They also strengthen their skills in written and oral expression. Students first study the social, intellectual, political, and economic history of the modern era in Western Civilization and then explore the nature of American political culture in American Government. After taking two courses as a base, students take three additional courses from the Social Sciences Department. They will take one course in each of three groupings, which will further broaden their critical thinking and written skills. The underlying principles of our economic system, the dynamics of capitalism, as well as the fundamentals of the international economy are studies in Group I where the students choose either Macroeconomics or Microeconomics. To acquire a clear understanding of the legal regulations and legal dynamics of the fields they are entering, students choose one course from Group II. Finally, to strengthen this background, students select one additional course from the Social Sciences Department from a wider range of available offerings (Group III) in history, geography, sociology, psychology, anthropology, the behavior sciences, economics and economic policy, or military affairs.

- GESS-1: SS-1211 Western Civilization  
 GESS-2: SS-2121 American Government  
 GESS-3: Select one course from Social Sciences Group I  
 GESS-4: Select one course from Social Sciences Group II  
 GESS-5: Select one course from Social Sciences Group III

**GESS-3 Social Sciences Group I**

- SS-2131 Microeconomics  
 SS-2231 Macroeconomics

**GESS-4 Social Sciences Group II**

- MS-3142 Environmental Law<sup>1</sup>  
 SS-3221 Business Law  
 SS-3222 Real Estate Law  
 SS-3223 European Union Law  
 SS-3224 International Business Law  
 SS-3225 Admiralty & Maritime Law  
 SS-4122 International Law  
 SS-4123 International Law & Legislative Compliance for Mariners  
 SS-4132 Legal Issues in Emergency Management

**GESS-5 Social Sciences Group III**

- SS-2232 World Economic Geography  
 SS-2233 Political Geography  
 SS-3141 Introduction to Psychology  
 SS-3211 American Maritime History  
 SS-3212 U.S. Foreign Policy since 1945  
 SS-3213 Sea Power in World History  
 SS-3214 Europe in the Middle Ages  
 SS-3216 Ancient History Seminar  
 SS-3217 Vietnam and U.S. Policy  
 SS-3218 Civil War and Reconstruction  
 SS-3219 American History I: Origins to 1865  
 SS-3220 American History II: 1865 to Present  
 SS-3233 Chinese Economy  
 SS-3241 Sociology  
 SS-3242 Ancient Greece  
 SS-3243 Ancient Rome  
 SS-3246 U.S. Energy Policy: Both Global & Domestic  
 SS-4311 20<sup>th</sup> Century History  
 SS-4317 Intelligence and National Security Policy

**Science and Mathematics**

The required courses from the Science and Mathematics Department enhance the ability to think quantitatively, critically, and logically and they illustrate the manner in which problems of a quantitative nature are solved through the use of algorithms and logical thought. Students study fundamental mathematical functions in Algebra and Trigonometry and explore the basic concepts of analysis of these functions in either Calculus I or Applied Calculus, depending on their major. Then students select one additional mathematics course with a Calculus I or Applied Calculus prerequisite. Thus, students learn to use mathematics, including calculus, in problem solving, to use technology appropriately in this process, and to apply mathematics to problems arising in other disciplines. In the required science courses students apply the scientific method in a variety of classroom and laboratory

---

<sup>1</sup> Due to the unique historical evolution, MS-3142 fulfills the Social Science Group II requirement.

settings. In so doing, they develop the ability to carefully collect, organize, and analyze data for the purpose of synthesizing a model for better understanding or problem solving. Basic concepts of matter are explored in Chemistry I to increase a student's understanding of technology, health and environmental issues. Students study the laws of nature in College Physics I, Survey of Physics, or Engineering Physics I in order to develop a method of reasoning that will enable students to interpret physical events in a rational manner. To add necessary depth to their study of natural science, students also select a sequential laboratory science course in either chemistry or physics.

- GESM-1: SM-1111 Algebra and Trigonometry
- GESM-2: SM-1131 Chemistry I
- GESM-3: SM-1212 Calculus I or SM-1214 Applied Calculus
- GESM-4: Select one course from Science and Mathematics Group I.
- GESM-5: Select one course from Science and Mathematics Group II.
- GESM-6: Select one course from Science and Mathematics Group III.

**Science and Mathematics Group I**

- SM-2113 Calculus II
- SM-2115 Applied Environmental Mathematics
- SM-2117 Quantitative Methods for Management
- SM-2119 Applied Mathematics for Deck Officers

**Science and Mathematics Group II**

- SM-2121 College Physics I
- SM-2123 Engineering Physics I
- SM-2127 Survey of Physics

**Science and Mathematics Group III**

- SM-1232 Chemistry II
- SM-2222 College Physics II
- SM-2224 Engineering Physics II
- SM-2233 Organic/Hazardous Materials Chemistry

## Course Prerequisites and Corequisites

The following represents a list of prerequisites and corequisites for courses offered as of 1 September 2015. This list may change during your four years at Massachusetts Maritime Academy. The Course Catalog published each year will contain any changes.

EM-1211 Consequence Management -- EM-2212 Introduction to Emergency Management
EM-1311 Experiential Learning -- EM-2212 Introduction to Emergency Management
EM-2111 Infectious Agents -- MS-2221 General Biology
EM-3121 Risk Management -- MS-2244 Introduction to GIS
EM-3211 Hazards I: Natural Hazards -- EM-2212 Introduction to Emergency Management; MS-1252 Earth Science
EM-3212 Toxicology -- SM-2233 Organic/Hazardous Materials Chemistry
EM-3213 Public Health Issues In Emergency Management -- EM-2111 Infectious Agents
EM-3311 Cooperative I: Emergency Management -- EM-3121 Risk Management,
EM-4133 Exercise Planning and Development -- EM-4221 Consequence Management
EM-4221 Consequence Management -- EM-1211 Consequence Management
EM-4222 Crisis Communication -- EM-2212 Introduction to Emergency Management, EM-3121 Risk Management
EM-4223 Information Technology in Emergency Management and Operations -- EM-2212 Introduction to Emergency Management; MS-2244 Introduction to GIS
EM-4224 Emergency Management Capstone -- EM-3121 Risk Management
EM-4225 Emergency Management Operations -- EM-3121 Risk Management
EM-4311 Cooperative II Emergency Management -- EM-3311 Cooperative I Emergency Management
EN-1211 Auxiliary Machinery I -- EN-1112 Engineering Systems and Safety; SM-1111 Algebra and Trigonometry
EN-1212 Computer Aided Design (CAD) -- SM-1111 Algebra and Trigonometry
EN-1222 Auxiliary Machinery I for Facilities -- EN-1112 Engineering Systems and Safety; SM-1111 Algebra and Trigonometry
EN-2101 Engineering Statics -- SM-2113 Calculus II; SM-2123 Engineering Physics I
EN-2111 Auxiliary Machinery II -- EN-1211 Auxiliary Machinery I, Corequisite: SM-1212 Calculus I
EN-2112 Machine Tool Technology -- EN-1211 Auxiliary Machinery I or EN-1222 Auxiliary Machinery I for Facilities
EN-2121 Auxiliary Machinery II for Facilities -- EN-1222 Auxiliary Machinery I for Facilities, Corequisite: SM-1212 Calculus I
EN-2211 Mechanics -- SM-2123 Engineering Physics I; SM-2113 Calculus II
EN-2221 Cooperative II Facilities Engineer -- SM-2123 Engineering Physics I
EN-2222 Commercial Boilers -- EN-1222 Auxiliary Machinery I for Facilities; Corequisite: SM-1212 Calculus I
EN-2231 Sea Term II - Engine -- SM-1212 Calculus I
EN-2232 Internal Combustion Engines I -- EN-2111 Auxiliary Machinery II; SM-1212 Calculus I
EN-2241 Early 2nd Class Commercial Shipping -- EN-2111 Auxiliary Machinery II; EN-2232 Internal Combustion Engines I; SM-2113 Calculus II; LB-0201 STCW Lifeboatman
EN-2242 Cooperative I Energy Systems Engineering -- EN-2101 Engineering Statics; SM-2224 Engineering Physics II
EN-2701 Introduction to Design -- EN-1212 Computer Aided Design (CAD); EN-2101 Engineering Statics; EN-2112 Machine Tool Technology; SM-2224 Engineering Physics II
EN-2901 Computer Methods in Engineering -- SM-2113 Calculus II; SM-2123 Engine Physics I
EN-3102 Systems Dynamics and Vibrations -- EN-2101 Engineering Statics; EN-3212 Electronics; EN-3212L Electronics Lab; SM-2214 Differential Equations
EN-3111 Electrical Machines -- SM-2224 Engineering Physics II
EN-3111L Electrical Machines Lab -- Corequisite: EN-3111 Electrical Machines

EN-3112 Strength of Materials -- EN-2211 Mechanics or EN-2101 Engineering Statics; Corequisite: SM-2214 Differential Equations
EN-3112L Strength of Materials Lab -- Corequisite: EN-3112 Strength of Materials
EN-3131 Steam Generators -- SM-2113 Calculus II
EN-3201 Fluid Dynamics -- EN-2101 Engineering Statics; SM-2214 Differential Equations
EN-3211 Thermodynamics -- SM-3125 Engineering Physics III
EN-3212 Electronics -- SM-2224 Engineering Physics II
EN-3212L Electronics Lab -- Corequisite: EN-3212 Electronics
EN-3213 Refrigeration -- SM-3125 Engineering Physics III
EN-3214 Municipal Wastewater Treatment -- SM-1212 Calculus I or SM-1214 Applied Calculus and SM-1232 Chemistry II or SM-2233 Organic/Hazardous Materials Chemistry
EN-3216 Operational Controls -- Corequisite: EN-3212 Electronics
EN-3221 Cooperative III Facilities Engineer -- EN-2112 Machine Tool Technology, EN-2221 Cooperative II - Facilities Engineer, EN-2222 Commercial Boilers, SM-2224 Engineering Physics II
EN-3231 Sea Term III - Engine -- EN-2112 Machine Tool Technology, EN-2231 Sea Term II – Engine, EN-2232 Internal Combustion Engines I
EN-3232 Commercial Sea Term - Engine -- EN-2112 Machine Tool Technology, EN-2232 Internal Combustion Engines I, SM-2224 Engineering Physics II, and either EN-2231 Sea Term II - Engine or EN-2241 Early 2nd Class Commercial Shipping
EN-3233 Steam and Gas Turbines -- EN-3131 Steam Generators
EN-3242 Cooperative II – Energy Systems Engineering -- EN-2242 Cooperative II Energy Systems Engineering
EN-3603 Instrumentation and Control -- EN-2901 Computer Methods in Engineering, EN-3212 Electronics EN-3212L Electronics Lab ,
EN-3603L Instrumentation and Control Laboratory -- EN-3212 Electronics; EN-3212L Electronics Lab; Corequisite: EN-3603 Instrumentation and Control
EN-3801 Energy Strategy and Management -- EN-3802 Energy Systems; EN-4803 Thermodynamics of Power Systems
EN-3802 Energy Systems -- EN-3201 Fluid Dynamics; Corequisite: EN-4803 Thermodynamics of Power Systems
EN-4111 Fluid Mechanics -- EN-2211 Mechanics; SM-3125 Engineering Physics III
EN-4112 Thermo/Fluids Lab -- EN-3211 Thermodynamics; Corequisite EN-4111 Fluid Mechanics
EN-4121 Electrical Power Distribution -- EN-3111 Electrical Machines
EN-4131 Internal Combustion Engines II -- EN-2232 Internal Combustion Engines I
EN-4151 Applied Naval Architecture for Marine Engineers -- EN-3112 Strength of Materials
EN-4221 Cooperative IV Facilities Engineer -- EN-3213 Refrigeration; EN-3221 Cooperative III Facilities Engineer
EN-4222 Heating, Ventilation and Air-Conditioning -- EN-3213 Refrigeration
EN-4224 Facilities Planning and Management -- EN-4221 Cooperative IV Facilities Engineer
EN-4231 Sea Term IV - Engine -- LB-0201 STCW Qualifications, and either EN-3231 Sea Term III - Engine or EN-3232 Commercial Sea Term - Engine
EN-4232 License Seminar – Marine Engineering -- Corequisite: EN-4131 Internal Combustion Engines II
EN-4234 Engine Room Resource Management -- Corequisite: EN-4232 License Seminar – Engineering
EN-4705 Energy Systems Design -- EN-2701 Introduction to Design; EN-4803 Thermodynamics of Power Systems; EN-4803L Power Systems Laboratory
EN-4803 Thermodynamics of Power Systems -- SM-3125 Engineering Physics III
EN-4803L Power Systems Laboratory -- Corequisite EN-4803 Thermodynamics of Power Systems
EN-7141 Advanced Computer Aided Design -- EN-1212 Computer Aided Design; SM-1212 Calculus I
EN-7142 Diesel Engines -- SM-1212 Calculus I or SM-1214 Applied Calculus

EN-7144 Nuclear Power -- SM-2224 Engineering Physics II or SM-2222 College Physics II
EN-7146 Heat and Mass Transfer -- SM-3125 Engineering Physics III
EN-7151 Commercial Turbines -- SM-3125 Engineering Physics III; and either EN-2222 Commercial Boilers or EN-3131 Steam Generators
EN-7212 Engineering Design Projects -- EN-3212 Electronics
EN-7214 Industrial Wastewater Treatment -- EN-3214 Municipal Wastewater Treatment
EN-7221 Cooperative Elective Facilities Engineer -- EN-4221 Cooperative IV Facilities Engineer
EN-7241 As-built CAD -- EN-1212 Computer Aided Design; SM-2113 Calculus II
EN-7248 Fundamentals of Engineering Seminar -- EN-4803 Thermodynamics of Power Systems
HU-1222 Analysis and Interpretation of Literature -- HU-1111 English Composition
HU-2141 Spanish I -- HU-1222 Analysis and Interpretation of Literature
HU-2242 Spanish II -- HU-2141 Spanish I
HU-2341 Elementary Chinese I -- HU-1222 Analysis and Interpretation of Literature
HU-2342 Elementary Chinese II -- HU-2341 Elementary Chinese I
HU-2441 German I -- HU-1222 Analysis and Interpretation of Literature
HU-2442 German II -- HU-2441 German I
HU-5021 Literature of the Sea -- HU-1222 Analysis and Interpretation of Literature
HU-5022 Literature and Film -- HU-1222 Analysis and Interpretation of Literature
HU-5023 Irish Literature -- HU-1222 Analysis and Interpretation of Literature
HU-5024 Shakespeare's Tragedies and Comedies -- HU-1222 Analysis and Interpretation of Literature
HU-5025 Short Stories -- HU-1222 Analysis and Interpretation of Literature
HU-5026 Literature and Mythology -- HU-1222 Analysis and Interpretation of Literature
HU-5027 Literature of the Supernatural -- HU-1222 Analysis and Interpretation of Literature
HU-5028 Drama -- HU-1222 Analysis and Interpretation of Literature
HU-5029 Contemporary Literature -- HU-1222 Analysis and Interpretation of Literature
HU-5030 Poetry -- HU-1222 Analysis and Interpretation of Literature
HU-5031 War Literature -- HU-1222 Analysis and Interpretation of Literature
HU-5032 American Literature I: Colonial Period to Civil War -- HU-1222 Analysis and Interpretation of Literature
HU-5033 American Literature II: Civil War to the Present -- HU-1222 Analysis and Interpretation of Literature
HU-5034 Writers of the American South -- HU-1222 Analysis and Interpretation of Literature
HU-5035 American Theater -- HU-1222 Analysis and Interpretation of Literature
HU-5036 Survival Literature -- HU-1222 Analysis and Interpretation of Literature
HU-5037 Discipline & Punishment: Philosophies & Theories -- HU-1222 Analysis and Interpretation of Literature
HU-5038 Moby-Dick: The Great American Sea Novel -- HU-1222 Analysis and Interpretation of Literature
HU-5039 Detective Literature -- HU-1222 Analysis and Interpretation of Literature
HU-5090 Special Topics: Humanities Group I -- HU-1222 Analysis and Interpretation of Literature
HU-6051 Philosophy -- HU-1222 Analysis and Interpretation of Literature
HU-6052 Ethics -- HU-1222 Analysis and Interpretation of Literature
HU-6055 Introduction to World Religions -- HU-1222 Analysis and Interpretation of Literature
HU-6056 The Brain, Narrative, and the Self -- HU-1222 Analysis and Interpretation of Literature
HU-6057 Composing in New Media -- HU-1222 Analysis and Interpretation of Literature
HU-6060 Creative Writing Seminar: Poetry -- HU-1222 Analysis and Interpretation of Literature
HU-6061 Creative Writing Seminar: Fiction and Nonfiction -- HU-1222 Analysis and Interpretation of Literature
HU-6062 Writing in Style -- HU-1222 Analysis and Interpretation of Literature
HU-6071 Public Speaking -- HU-1222 Analysis and Interpretation of Literature

HU-6072 Business Communication -- HU-1222 Analysis and Interpretation of Literature
HU-6703 Technical Writing - HU-1222 Analysis and Interpretation of Literature
HU-6080 Introduction to Art -- HU-1222 Analysis and Interpretation of Literature
HU-6090 Special Topics: Humanities Group II -- HU-1222 Analysis and Interpretation of Literature
IM-2221 Principles of Accounting II -- IM-2121 Principles of Accounting I
IM-2231 Business Decision and Strategy -- IM-1214 Foundations of Business Computing; SM-2117 Quantitative Methods for Management
IM-3111 Transportation Operations Management -- IM-2211 The Business of Shipping
IM-3122 Business Data Analysis -- IM-1214 Foundations in Business Computing; SM-2117 Quantitative Methods for Management
IM-3133 Finance I -- IM-1214 Foundations in Business Computing; IM-2121 Principles of Accounting I
IM-3231 Vessel Chartering and Brokerage -- IM-2211 Business of Shipping
IM-3233 Finance II -- IM-3133 Finance I
IM-3411 Experiential Learning IMB -- MT-1121 STCW Basic Training (if Experiential Learning option is a sea term)
IM-4111 Marine Insurance -- SS-2131 Microeconomics; SS-3225 Admiralty and Maritime Law
IM-4112 International Business and Ocean Shipping -- IM-2211 The Business of Shipping; SS-2131 Microeconomics
IM-4151 Supply Chain Management -- IM-3111 Transportation Operations Management
IM-4211 Business Ethics and Negotiation -- IM-1211 Organizational Management
IM-4212 Capstone Seminar in IMB -- IM-2221 Principles of Accounting II; IM-3122 Business Analysis; IM-3231 Vessel Chartering and Brokerage; IM-3233 Finance II; HU-6072 Business Communication
IM-4213 Maritime Policy and Business Strategy -- IM-4151 Supply Chain Management
IM-4214 Critical Issues in Human Resource Management -- IM-4211 Business Ethics and Negotiation
IM-4261 Special Topics in International Business -- IM-3122 Business Analysis; IM-4211 Business Ethics and Negotiation
IM-4262 Special Topics in Maritime Business -- IM-4151 Supply Chain Management
IM-4264 Managerial Accounting - IM-2121 Principles of Accounting I
IM-4311 Cooperative II IMB -- IM-3311 Cooperative I IMB
MS-2131 Introduction to Communications -- HU-1111 English Composition or HU-6012 Advanced Expository Writing
MS-3121 Physical Geology -- SM-1111 Algebra and Trigonometry
MS-3132 Life Science Laboratory -- MS-2221 General Biology
MS-3141 Coastal Ecology -- MS-2221 General Biology
MS-3142 Environmental Law -- SS-2121 American Government
MS-3221 Oceanography -- MS-3121 Physical Geology
MS-3222 Geo-Sciences Lab -- MS-3121 Physical Geology
MS-3242 Hazardous Materials Management -- SM-1214 Applied Calculus
MS-4111 Environmental Monitoring I -- Senior Academic Status
MS-4141 Coastal Zone Management -- MS-3141 Coastal Ecology; MS-3142 Environmental Law
MS-4142 Human Health and Risk -- SM-3234 Environmental Chemistry
MS-4211 Environmental Monitoring II -- MS-4111 Environmental Monitoring I
MS-4231 Risk Communications -- MS-2131 Introduction to Communications
MS-4241 Environmental Risk -- MS-4142 Human Health and Risk
MS-4264 Conservation Biology -- MS-2221 General Biology
MS-4271 Advanced Principles of Industrial Health & Safety - MS-1111 Fundamentals for Industrial Health and Safety; MS-2221 General Biology; SM-2233 Organic/Hazardous Materials Chemistry

MS-4321 Biology of Fishes -- MS-2221 General Biology
MT-1232 STCW Survival Craft -- MT-1121 STCW Basic Training
MT-2121 Deep Sea Navigation -- MT-1221 Coastal Navigation
MT-2161 Rules of the Road -- MT-1221 Coastal Navigation, ST-0999 Sea Term I
MT-2222 Celestial Navigation -- MT-2121 Deep Sea Navigation
MT-2231 Basic Seamanship -- ST-0999 Sea Term I
MT-2371 Sea Term II - Deck -- MT-2161 Rules of the Road (minimum grade of C-); MT-2121 Deep Sea Navigation
MT-2501 Introduction to Offshore Operations - MT-2121 Deep Sea Navigation, ST-0999 Sea Term I; SM-1214 Applied Calculus
MT-3122 Radar Observer Certification -- MT-2161 Rules of the Road
MT-3131 Meteorology -- SM-2121 College Physics I
MT-3171 Tugs and Towing I -- MT 1231 STCW Survival Craft; MT-2231 Basic Seamanship
MT-3222 Automatic Radar Plotting Aids (ARPA) -- MT-3122 Radar Observer Certification
MT-3224 Electronic Chart Display & Information System (ECDIS) -- MT-3222 Automatic Radar Plotting Aids (ARPA)
MT-3231 Applied Shiphandling -- MT-4132 Advanced Seamanship; MT-3371 Sea Term III – Deck or MT-3372 Commercial Sea Term - Deck; Corequisite MT-3222 Automatic Radar Plotting Aids (ARPA)
MT-3261 Containerization and Modern Cargo Stowage -- MT-2141 Ship Construction; MT-2231 Basic Seamanship
MT-3371 Sea Term III - Deck -- MT-2222 Celestial Navigation; MT-2371 Sea Term II – Deck; MT-3122 Radar Observer Certification (all prerequisites must be passed with a C- or better and all practical assessments must be passed)
MT-3372 Commercial Sea Term - Deck -- MT-2222 Celestial Navigation; MT-2371 Sea Term II – Deck; MT-3122 Radar Observer Certification (all prerequisites must be passed with a C- or better and all practical assessments must be passed)
MT-3451 Yacht Operations - ST-0999 Sea Term I
MT-4122 GMDSS -- MT-3221 Electronic Navigation
MT-4132 Advanced Seamanship -- MT-2231 Basic Seamanship
MT-4133 Bridge Resource Management -- MT-3224 Electronic Chart Display & Information System (ECDIS); MT-3231 Applied Shiphandling
MT-4171 Tugs and Towing II -- MT-3171 Tugs and Towing I
MT-4241 Stability and Trim -- MT-2141 Ship Construction; SM-2121 College Physics; SM-1214 Applied Calculus
MT-4251 Marine Safety -- MT-2231 Basic Seamanship
MT-4252 License Seminar - Deck -- MT-4371 Sea Term IV – Deck; USCG licensing prerequisites
MT-4253 Watchkeeping using Full-Mission Bridge Simulator -- MT-4133 Bridge Resource Management
MT-4371 Sea Term IV - Deck -- LB-0201 STCW Qualifications; MT-3231 Applied Shiphandling; MT-3222 Automatic Radar Plotting Aids (ARPA), and either MT-3371 Sea Term III – Deck or MT-3372 Commercial Sea Term – Deck
NS-4111 Leadership and Ethics -- NS-2111 Naval Science for the Strategic Sealift Officer; NS-3111 Strategic Sealift Officer I
NS-4211 Strategic Sealift Officer II -- NS-4111 Leadership and Ethics
SM-1131 Chemistry I -- Corequisite: SM-1111 Algebra and Trigonometry
SM-1212 Calculus I -- SM-1111 Algebra and Trigonometry (minimum grade of C-)
SM-1214 Applied Calculus -- SM-1111 Algebra and Trigonometry
SM-1232 Chemistry II -- SM-1131 Chemistry I
SM-2113 Calculus II -- SM-1212 Calculus I
SM-2115 Applied Environmental Mathematics -- SM-1214 Applied Calculus



SM-2117 Quantitative Methods for Management -- SM-1214 Applied Calculus
SM-2119 Applied Mathematics for Deck Officers -- SM-1214 Applied Calculus
SM-2121 College Physics I -- SM-1111 Algebra and Trigonometry
SM-2123 Engineering Physics I -- SM-1212 Calculus I; Corequisite: SM-2113 Calculus II
SM-2127 Survey of Physics -- SM-1111 Algebra and Trigonometry
SM-2214 Differential Equations -- SM-2113 Calculus II
SM-2218 Statistics -- SM-1111 Algebra and Trigonometry
SM-2222 College Physics II -- SM-2121 College Physics I
SM-2224 Engineering Physics II -- SM-2113 Calculus II, Corequisite SM-2214 Differential Equations
SM-2233 Organic/Hazardous Materials Chemistry -- SM-1131 Chemistry I
SM-3005 Probability and Statistics -- SM-2113 Calculus II
SM-3006 Materials Science -- SM-1232 Chemistry II, SM-2224 Engineering Physics II
SM-3111 Introduction to Radiological Materials -- SM-2127 Survey of Physics; SM-1131 Chemistry I
SM-3125 Engineering Physics III -- SM-1232 Chemistry II; SM-2113 Calculus II; SM-2123 Engineering Physics I
SM-3234 Environmental Chemistry -- SM-1131 Chemistry I; SM-2233 Organic/Hazardous Materials Chemistry
SM-6115 Calculus III -- SM-2214 Differential Equations
SM-6216 Applied Engineering Mathematics -- SM-6115 Calculus III
SS-2232 World Economic Geography -- SS-2131 Microeconomics or SS-2231 Macroeconomics
SS-2233 Political Geography -- SS-2121 American Government or SS-1211 Western Civilization
SS-3131 Environmental Economics -- SS-1211 Western Civilization and either SS-2131 Microeconomics or SS-2231 Macroeconomics
SS-3211 American Maritime History -- SS-1211 Western Civilization
SS-3212 U.S. Foreign Policy Since 1945 -- SS-1211 Western Civilization
SS-3213 Seapower in World History -- SS-1211 Western Civilization
SS-3214 Europe in the Middle Ages -- SS-1211 Western Civilization
SS-3216 Ancient History Seminar -- SS-1211 Western Civilization
SS-3217 Vietnam and U.S. Policy -- SS-1211 Western Civilization
SS-3218 Civil War and Reconstruction -- SS-1211 Western Civilization
SS-3219 American History I: Origins to 1865 -- SS-1211 Western Civilization
SS-3220 American History II: 1865 to Present -- SS-1211 Western Civilization
SS-3239 Maritime Operations -- SS-2121 American Government
SS-3242 Ancient Greece -- SS-1211 Western Civilization
SS-3243 Ancient Rome -- SS-1211 Western Civilization
SS-4123 International Law and Legislative Compliance for Mariners -- SS-2121 American Government
SS-4132 Legal Issues in Emergency Management -- EM-2212 Introduction to Emergency Management; SS-2121 American Government
SS-4311 20th Century History -- SS-1211 Western Civilization
ST-0999 Sea Term I -- MT-1121 STCW Basic Training; EN-1112 Engineering Systems and Safety; SM-1111 Algebra and Trigonometry
ST-2321 Sea Term Independent Study -- MT-1121 STCW Basic Training; SM-1111 Algebra and Trigonometry

Prerequisite courses must be completed with a D- or better grade in order to be considered completed as a prerequisite. There are a few exceptions that require a C- in order for the prerequisite to be fulfilled. Any grade issued as an incomplete, that two weeks into the semester turns into an F, does not satisfy prerequisite requirements. All STCW courses must be completed with a C- or better grade

in order to be considered completed for STCW requirements. A full list of STCW courses can be found on pages 41 and 42 of this document.

**Credit will not be given for both SM-2121 College Physics I and SM-2123 Engineering Physics I**  
**Credit will not be given for both SM-2121 College Physics I and SM-2127 Survey of Physics**  
**Credit will ne be given for both SM-2222 College Physics II and SM-2127 Survey of Physics**  
**Credit will not be given for both SM-2123 Engineering Physics I and SM-2127 Survey of Physics**

## B.S. Marine Transportation

Course Number	Semester 1	Credits	Category	Course Number	Semester 2	Credits	Category
HU1111	English Composition	3.0	GEHU1	HU1222	Analysis of Literature	3.0	GEHU2
SM1111	Algebra and Trigonometry	3.0	GESM1	MT1221	Coastal Navigation	3.0	Major
SM1131	Chemistry I	3.5	GESM2	MT1221L	Coastal Navigation Lab	0.0	Lab
SM1131L	Chemistry I Lab	0.0	Lab	MT1231	STCW Survival Craft	2.0	Major
MT1121	STCW Basic Training	3.0	Support	MT1231L	STCW Survival Craft Lab	0.0	Lab
MT1121L	STCW Basic Training Lab	0.0	Lab	SM1214	Applied Calculus	3.0	GESM3
EN1112	Engine Systems & Safety	3.0	Support	SM2121	College Physics I	3.5	GESM5
EN1112L	Engineering Systems Lab	0.0	Lab	SM2121L	College Physics I Lab	0.0	Lab
		15.5		SS1211	Western Civilization	3.0	GESS1
						17.5	
ST0999	Sea Term I	6.0					
	<b>Semester 3</b>				<b>Semester 4</b>		
SM2119	Applied Mathematics - Deck	3.0	GESM4	MT2222	Celestial Navigation	4.0	Major
SM2222	College Physics II	3.5	GESM6	MT2222	Celestial Navigation Lab	0.0	Lab
SM2222L	College Physics II Lab	0.0	Lab	MT2231	Basic Seamanship	4.0	Major
MT2141	Ship Construction	3.0	Major	MT2231	Basic Seamanship Lab	0.0	Lab
MT2161	Rules of the Road	3.0	Major	MT3122	Radar Observer Cert.	3.0	Major
MT2121	Deep Sea Navigation	3.0	Major	MT3122	Radar Observer Cert. Lab	0.0	Lab
MT2121L	Deep Sea Navigation Lab	0.0	Lab	SS2121	American Government	3.0	GESS2
LB0201	STCW Qualifications*	0.0		LB0201	STCW Qualifications*	0.0	
FF0104	3/C Firefighting Practicum	0.0		LB0202	STCW Lifeboatman Exam	0.0	
		15.5			*take in either Semester 3 or 4	14.0	
MT2371	Sea Term II	6.0					
	<b>Semester 5</b>				<b>Semester 6</b>		
MT3221	Electronic Navigation	4.0	Major		Social Science Group I	3.0	GESS3
MT3221L	Electronic Navigation Lab	0.0	Lab	MT4122	GMDSS	4.0	Major
MT3151	Dangerous Liquid Cargo	4.0	Major	MT4122L	GMDSS Lab	0.0	Lab
MT3151L	Dangerous Liquid Cargo Lab	0.0	Lab		Social Science Group III	3.0	GESS5
MT3222	ARPA (lab included)	2.0	Major	MT3231	Applied Shiphandling	3.0	Major
MT4132	Advanced Seamanship	4.0	Major	MT4241	Stability and Trim	3.0	Major
MT4132L	Advanced Seamanship Lab	0.0	Lab	MT3224	ECDIS	3.0	Major
	Humanities Group I	3.0	GEHU3	FF0106	2/C Firefighting Practicum	0.0	
		17.0				19.0	
MT3371	Sea Term III or	6.0					
MT3372	Commercial Sea Term						
	<b>Semester 7</b>				<b>Semester 8</b>		
MT3131	Meteorology	3.0	Major	MT4251	Marine Safety	3.0	Major
MT4133	Bridge Resource Management	3.0	Major	MT4252	License Seminar: MT	3.0	Major
SS4123	Int. Law & Legisl. Compliance	3.0	GESS4	MT3261	Modern Cargo Stowage	3.0	Major
	Humanities Group I or II	3.0	GEHU4	MT4253	Watchkeeping	0.0	Support
	Free Elective I	3.0	Support		Free Elective II	3.0	Support
FF0108	1/C Firefighting Practicum	0.0		PE0032	STCW Med Care Provider	0.0	Support
		15.0				12.0	
MT4371	Sea Term IV	6.0					

### Marine Transportation Eligibility

To enroll in Marine Transportation, a student must pass MT-1121 STCW Basic Training with a grade of C- and EN-1112 Engineering Systems and Safety with a grade of C-. A student failing to meet either of these requirements may remain at the Academy by enrolling in a major for which he or she remains eligible.

## B.S. Marine Engineering

Course Number	Semester 1	Credits	Category	Course Number	Semester 2	Credits	Category
HU1111	English Composition	3.0	GEHU1	HU1222	Analysis of Literature	3.0	GEHU2
SM1111	Algebra and Trigonometry	3.0	GESM1	SM1212	Calculus I	3.0	GESM3
SM1131	Chemistry I	3.5	GESM2	SM1232	Chemistry II	3.5	GESM6
SM1131L	Chemistry I Lab	0.0	Lab	SM1232L	Chemistry II Lab	0.0	Lab
MT1121	STCW Basic Training	3.0	Support	SS1211	Western Civilization	3.0	GESS1
MT1121L	STCW Basic Training Lab	0.0	Lab	EN2111	Auxiliary Machinery I	3.5	Major
EN1112	Engine Systems & Safety	3.0	Support	EN2111L	Auxiliary Mach I Lab	0.0	Lab
EN1112L	Engineering Systems Lab	0.0	Lab	MT1231	STCW Survival Craft	2.0	Major
		15.5		MT1231L	STCW Survival Craft Lab	0.0	Lab
ST0999	Sea Term I	6.0				18.0	
	<b>Semester 3</b>				<b>Semester 4</b>		
SM2113	Calculus II	3.0	GESM4	SM2214	Differential Equations	3.0	Support
SM2123	Engineering Physics I	3.5	GESM5	SM2224	Engineering Physics II	3.5	Support
SM2123L	Engineering Physics I Lab	0.0	Lab	SM2224L	Engine Physics II Lab	0.0	Lab
EN2111	Auxiliary Machinery II	4.0	Major	EN2232	Internal Comb Engine I	4.0	Major
EN2111L	Auxiliary Machinery II Lab	0.0	Lab	EN2232L	Internal Comb Eng I Lab	0.0	Lab
EN2112	Machine Tool Technology	2.0	Major		<b>Social Science Group I</b>	3.0	GESS3
EN2112	Machine Tool Tech Lab	0.0	Lab	EN2211	Mechanics	3.0	Major
SS2121	American Government	3.0	GESS2	LB0202	STCW Lifeboat Exam	0.0	
EN1212	CAD	1.0	Major	LB0201	STCW Qualifications*	0.0	
FF0104	3/C Firefighting Practicum	0.0				16.5	
LB0201	STCW Qualifications*	0.0			*take in either Semester 3 or 4		
		16.5					
EN2231	Sea Term II	6.0					
To alleviate scheduling conflicts, Machine Tool Technology may be taken in Semester 4 and Social Science Group I may be taken in Semester 3							
	<b>Semester 5</b>				<b>Semester 6</b>		
SM3125	Engineering Physics III	3.0	Support	EN3212	Electronics	3.0	Major
EN3111	Electrical Machines	3.0	Major	EN3212L	Electronics Lab	1.0	Major
EN3111L	Electrical Machines Lab	1.0	Major	EN3233	Steam & Gas Turbines	4.0	Major
EN3112	Strength of Material	3.0	Major	EN3233	Steam/Gas Turbines Lab	0.0	Lab
EN3112L	Strength of Materials Lab	1.0	Major	EN3211	Thermodynamics	3.0	Major
EN3131	Steam Generators	3.5	Major	EN-3216	Operational Controls	3.0	Major
EN3131L	Steam Generators Lab	0.0	Lab		Humanities Group I	3.0	GEHU3
		14.5		FF0106	2/C Firefighting Practicum	0.0	
						17.0	
EN3231	Sea Term III or	6.0					
EN3232	Commercial Sea Term						
	<b>Semester 7</b>				<b>Semester 8</b>		
EN4111	Fluid Mechanics	3.0	Major	EN4232	License Seminar	3.0	Major
EN4112	Thermo/Fluids Lab	1.0	Major	EN4151	Applied Naval Arch.	3.0	Support
EN4131	Internal Combustion Eng II	4.0	Major	EN4234	Engineroom Res. Mgt.	0.0	Support
EN4131L	Int Comb Eng II Lab	0.0	Lab		Social Science Group III	3.0	GESS5
EN3213	Refrigeration	2.5	Major		Free Elective II	3.0	Support
EN3213L	Refrigeration Lab	0.0	Lab		Humanities Group I or II	3.0	GEHU4
SS4123	Int. Law & Leg. Comp.	3.0	GESS4	PE0032	STCW Medical Care Prov	0.0	Support
	Free Elective I	3.0	Support			15.0	
FF0108	1/C Firefighting	0.0					
		16.5					
EN4231	Sea Term IV	6.0					

### Marine Engineering Eligibility

Marine Engineering students must pass MT-1121 STCW Basic Training and EN-1112 Engineering Systems and Safety with a minimum grade of C-. A student must also pass SM-1111 Algebra & Trigonometry by the second attempt, complete SM-1212 Calculus I by the start of the fourth semester and complete EN-2211 Mechanics by the third attempt. A student failing to meet any of these requirements may remain at the Academy by enrolling in a major for which he or she remains eligible. Marine Engineers who fail to earn at least a C- in Algebra & Trigonometry will be removed from Sea Term I and encouraged to enroll and successfully complete Algebra & Trigonometry at MMA over the winter term.

## B.S. Facilities Engineering

Course Number	Semester 1	Credits	Category		Course Number	Semester 2	Credits	Category
HU1111	English Composition	3.0	GEHU1		HU1222	Analysis of Literature	3.0	GEHU2
SM1111	Algebra and Trigonometry	3.0	GESM1		SM1212	Calculus I	3.0	GESM3
SM1131	Chemistry I	3.5	GESM2		SM1232	Chemistry II	3.5	GESM6
SM1131L	Chemistry I Lab	0.0	Lab		SM1232L	Chemistry II Lab	0.0	Lab
SS1211	Western Civilization	3.0	GESS1		SS2121	American Government	3.0	GESS2
EN1112	Engine Systems & Safety	3.0	Support		EN1222	Auxiliary Machinery I -FE	3.5	Major
EN1112L	Engineering Systems Lab	0.0	Lab		EN1222L	Aux Mach I – FE Lab	0.0	Lab
		15.5			EN1212	CAD	1.0	Major
							17.0	
	<b>Semester 3</b>					<b>Semester 4</b>		
SM2113	Calculus II	3.0	GESM4		EN2211	Mechanics	3.0	Major
SM2123	Engineering Physics I	3.5	GESM5		SM2224	Engineering Physics II	3.5	Support
SM2123L	Engineering Physics I Lab	0.0	Lab		SM2224L	Engineering Physics II Lab	0.0	Lab
EN2121	Auxiliary Machinery II-FE	4.0	Major		EN2222	Commercial Boilers	3.5	Major
EN2111L	Auxiliary Machinery II Lab	0.0	Lab		EN2222L	Commercial Boilers Lab	0.0	Lab
	Humanities Group I	3.0	GEHU3		EN2112	Machine Tool Technology	2.0	Major
	Social Science Group I	3.0	GESS3		EN2112L	Machine Tool Tech Lab	0.0	Lab
		16.5			SM2214	Differential Equations	3.0	Support
							15.0	
					EN3221	Cooperative II	6.0	
	<b>Semester 5</b>					<b>Semester 6</b>		
SM3125	Engineering Physics III	3.0	Support		EN3111	Electrical Machines	3.0	Major
EN3212	Electronics	3.0	Major		EN3111L	Electrical Machines Lab	1.0	Major
EN3212L	Electronics Lab	1.0	Major		IM3131	Principles of Finance	3.0	Support
EN3112	Strength of Materials	3.0	Major		EN3211	Thermodynamics	3.0	Major
EN3112L	Strength of Materials Lab	1.0	Major		EN3213	Refrigeration	2.5	Major
EN3214	Municipal Wastewater	3.0	Support		EN3213L	Refrigeration Lab	0.0	Lab
	Management Elective*	3.0	Major			Free Technical Elective	3.0	Support
		17.0					15.5	
	*IM3232 Supervisory Management or IM1211 Organizational Management							
EN3221	Cooperative III	6.0						
	<b>Semester 7</b>					<b>Semester 8</b>		
EN3216	Operational Controls	3.0	Major		EN4222	HVAC	3.0	Major
EN4121	Elec. Power Distribution	3.0	Major		EN4224	Facilities Planning and Mgt.	3.0	Major
EN4111	Fluid Mechanics	3.0	Major			Humanities Group I or II	3.0	GEHU4
EN4112	Thermo/Fluids Lab	1.0	Major			Social Science Group III	3.0	GESS5
	Social Science Group II**	3.0	GESS4			Free Elective II	3.0	Support
	Free Elective I	3.0	Support				15.0	
		16.0						
	** MS3142 Environmental Law, SS-3221 Business Law, or SS-4132 Legal Issues in EM							
EN4221	Cooperative IV	6.0						

### Facilities Engineering Eligibility

Facilities Engineering students must pass EN-1112 Engineering Systems and Safety with a minimum grade of C- and SM-1111 Algebra & Trigonometry by the second attempt. A student must also complete SM-1212 Calculus I by the start of the fourth semester and a student must complete EN-2211 Mechanics by the third attempt. A student failing to meet any of these requirements may remain at the Academy by enrolling in a major for which he or she remains eligible. Facilities Engineers who fail to earn at least a C- in Algebra & Trigonometry are encouraged to enroll and successfully complete Algebra & Trigonometry at MMA over the winter term.



## B.S. Marine Safety and Environmental Protection

Course Number	Semester 1	Credits		Course Number	Semester 2	Credits	
HU1111	English Composition	3.0	GEHU1	SM1214	Applied Calculus	3.0	GESM3
SM1111	Algebra and Trigonometry	3.0	GESM1	MS2221	General Biology	3.0	Major
SM1131	Chemistry I	3.5	GESM2	MS1252	Earth Science	3.5	Major
SM1131L	Chemistry I Lab	0.0	Lab	MS1252L	Earth Science Lab	0.0	Lab
MS1211	Current Env Problems	3.0	Major	MS2244	Introduction to GIS	3.0	Major
MS-1111	Fund. of Ind. Hlth & Safety	3.0	Major	HU1222	Analysis of Literature	3.0	GEHU2
		15.5				15.5	
MS-1311	Experiential Learning	3.0	Support				
	<b>Semester 3</b>				<b>Semester 4</b>		
MS2131	Intro to Communication	3.0	Major	SM2218	Statistics	3.0	Support
SS1211	Western Civilization	3.0	GESS1	SS2121	American Government	3.0	GESS2
SM2115	App Environmental Math	3.0	GESM4	SM2127	Survey of Physics	3.5	GESM5
SM2233	Organic/HazMat Chem	3.5	GESM6	SM2127L	Survey of Physics Lab	0.0	Lab
SM2233L	Org/HazMat Chem Lab	0.0	Lab		Humanities Group I	3.0	GEHU3
	Departmental Elective I	3.0	Support		Departmental Elective II	3.0	Support
		15.5				15.5	
	<b>Semester 5</b>				<b>Semester 6</b>		
MS3141	Coastal Ecology	3.0	Major	MS3221	Oceanography	4.0	Major
MS3121	Physical Geology	3.0	Major	MS3242	Haz Materials Mgmt	3.0	Major
MS3132	Life Science Lab	1.0	Major	MS-4263	Oil Spill Management	3.0	Major
MS3142	Environmental Law	3.0	GESS4	SM3234	Environmental Chem	4.0	Support
	Departmental Elective III	3.0	Support	SM3234	Environmental Chem Lab	0.0	Lab
	Social Science Group I	3.0	GESS3		Departmental Elective IV	3.0	Support
		16.0				17.0	
MS3351	MSEP Cooperative I	6.0					
	<b>Semester 7</b>				<b>Semester 8</b>		
MS4111	Environmental Monitoring I	3.0	Major	MS4211	Env Monitoring II	3.0	Major
MS4142	Human Health and Risk	3.5	Major	MS4231	Risk Communication	3.0	Major
MS4142L	Human Health and Risk Lab	0.0	Lab	MS4241	Environmental Risk	3.0	Major
MS4141	Coastal Zone Management	3.0	Major		Free Elective II	3.0	Support
	Humanities Group I or II	3.0	GEHU4		Social Science Group III	3.0	GESS5
	Free Elective I	3.0	Support			15.0	
		15.5					
MS-4411	MSEP Cooperative II	6.0					

## B.S. Emergency Management

Course Number	Semester 1	Credits	Category	Course Number	Semester 2	Credits	Category
HU1111	English Composition	3.0	GEHU1	SM1214	Applied Calculus	3.0	GESM3
SM1111	Algebra and Trigonometry	3.0	GESM1	MS2221	General Biology	3.0	Major
SM1131	Chemistry I	3.5	GESM2	MS1252	Earth Science	3.5	Major
SM1131L	Chemistry I Lab	0.0	Lab	MS1252L	Earth Science Lab	0.0	Lab
EM2212	Intro to Emergency Mgt	3.0	Major	EM1211	Contingency Management	3.0	Major
MS2244	Introduction to GIS	3.0	Major	HU1222	Analysis of Literature	3.0	GEHU2
		15.5				15.5	
EM-1311	Experiential Learning: EM	3.0	Support				
	<b>Semester 3</b>				<b>Semester 4</b>		
MS2131	Intro to Communication	3.0	Major	SM2218	Statistics	3.0	Support
SS1211	Western Civilization	3.0	GESS1	SS2121	American Government	3.0	GESS2
SM2115	App Environmental Math	3.0	GESM4	SM2127	Survey of Physics	3.5	GESM5
SM2233	Organic/HazMat Chem	3.5	GESM6	SM2127L	Survey of Physics Lab	0.0	Lab
SM2233L	Org/HazMat Chem Lab	0.0	Lab		Social Science Group I	3.0	GESS3
EM4221	Consequence Management	3.0	Major		Humanities Group I	3.0	GEHU3
		15.5				15.5	
	<b>Semester 5</b>				<b>Semester 6</b>		
EM3121	Risk Management	3.0	Support	EM3211	Natural Hazards	3.0	Major
SS2233	Political Geography	3.0	Support		Humanities Group I or II	3.0	GEHU4
EM2111	Infectious Agents	3.0	Major		Social Science Group III	3.0	GESS5
SM3111	Radiological Materials	3.0	Major	MS3242	Hazardous Materials Mgt	3.0	Major
EM3214	International Terrorism	3.0	Major	EM3212	Toxicology	3.0	Major
IM3131	Principles of Finance	3.0	Support	EM3213	Public Health in EM	3.0	Major
		18.0				18.0	
EM3311	EM Cooperative I	6.0					
	<b>Semester 7</b>				<b>Semester 8</b>		
EM4225	Emergency Mgt Operations	3.0	Major	MT3251	Maritime Security Mgt	3.0	Support
EM4133	Exercise Planning and Dev.	3.0	Major	EM4222	Crisis Communications	3.0	Major
SS4132	Legal Issues in EM	3.0	GESS4	EM4223	IT in Emergency Mgt Ops	3.0	Major
EM4112	Fire Dynamics	3.0	Major	EM4224	Emergency Mgt Capstone	3.0	Major
	Free Elective I	3.0	Support		Free Elective II	3.0	Support
		15.0				15.0	
EM4311	EM Cooperative II	6.0					



## B.S. International Maritime Business

Course Number	Semester 1	Credits	Category	Course Number	Semester 2	Credits	Category
HU1111	English Composition	3.0	GEHU1	HU1222	Analysis of Literature	3.0	GEHU2
SM1111	Algebra and Trigonometry	3.0	GESM1	IM1211	Organization Management.	3.0	Major
SM1131	Chemistry I	3.5	GESM2	SM1214	Applied Calculus	3.0	GESM3
SM1131L	Chemistry I Lab	0.0	Lab		Science/Math Group II	3.5	GESM5
IM1214	Foundation Business Comp.	3.0	Major		Science/Math Group II Lab	0.0	Lab
IM2211	Business of Shipping	3.0	Major	SS2131	Microeconomics	3.0	Support
		15.5				15.5	
	<b>Semester 3</b>				<b>Semester 4</b>		
IM2121	Principles of Accounting I	3.0	Major	IM2221	Principles of Accounting II	3.0	Major
SM2117	Quantitative Methods	3.0	GESM4	IM3231	Vessel Chartering and Brokerage	3.0	Major
	Science/Math Group III	3.5	GESM6	IM3122	Business Data Analysis	3.0	Major
	Science/Math Group III Lab	0.0	Lab	HU6072	Business Communications	3.0	Support
IM1212	Macro for Business	3.0	Major	IM2231	Business Decision and Strategy	3.0	Major
	Foreign Language I	3.0	Support			15.0	
		15.5					
	<b>Semester 5</b>				<b>Semester 6</b>		
IM3111	Transportation Op Mgmt	3.0	Major		Social Science Group III	3.0	GESS5
IM3241	Principles of Marketing	3.0	Major	SS2121	American Government	3.0	GESS2
IM3133	Finance I	3.0	Major	IM3233	Finance II	3.0	Major
SS1211	Western Civilization	3.0	GESS1		Humanities Group I	3.0	GEHU3
SS3225	Admiralty & Maritime Law	3.0	GESS4	SS3221	Business Law	3.0	Support
		15.0		IM4211	Business Ethics and Negotiation	3.0	Major
						18.0	
IM-3411	Experiential Learning: IMB	6.0		IM3311	IMB Cooperative I	6.0	
	<b>Semester 7</b>				<b>Semester 8</b>		
MT3252	Port & Terminal Op Mgt	3.0	Support		IMB Elective II	3.0	Major
IM4111	Marine Insurance	3.0	Major		IMB Elective III	3.0	Major
IM4112	Int Bus & Ocean Shipping	3.0	Major	IM4212	Capstone Seminar in IMB	3.0	Major
IM4151	Supply Chain Management	3.0	Major		Humanities Group I or II	3.0	GEHU4
	IMB Elective I	3.0			Free Elective II	3.0	Support
	Free Elective I	3.0	Support			15.0	
		18.0					
IM4311	IMB Cooperative II	6.0					

# Academic Standards

## Grades

Letter grades are assigned to students according to the following scale for each academic course:

Alphabetical Grade	4.0 Equivalent	Alphabetical Grade	4.0 Equivalent
A	4.00	D+	1.33
A-	3.67	D	1.00
B+	3.33	D-	.67
B	3.00	F	0.00
B-	2.67	P (Pass)	
C+	2.33	I (Incomplete)	---
C	2.00	X (Exempt)	---
C-	1.67	W (Withdrawn)	---

A single, alphabetical grade certified by the instructor within the deadline published on the academic calendar is assigned to each student and submitted to the Registrar. Grade changes must be submitted in writing to the Registrar by the instructor within two weeks after the start of the term immediately following the term in which the grade was given. An extension of the two-week period may only be allowed upon special arrangements by the instructor and the Vice President/Academic Dean.

### Grade Appeal Policy

The Grade Appeal Policy is designed to resolve a student's specific concerns with regard to a final course grade. If such a concern exists, students are encouraged to avail themselves of this process mindful that no adverse consequences will result from making an informal or formal appeal.

If a student feels that a final course grade is inappropriate, the student must make an appointment with the faculty member to discuss the matter informally. The appointment must be requested within the first two weeks of the academic semester following the semester for which the grade was given. Every effort will be made to resolve the student's concerns informally.

If the student's concerns are not resolved through the informal appeal policy, the student may pursue the formal appeal process by meeting with the appropriate department chair. The burden of proof is on the student to show that a grade is inappropriate. The formal appeal must be initiated within two weeks after the conclusion of the informal appeal process. The formal appeal commences when the student submits in writing a description of the basis for the grievance, including any corroborating materials to the department chair. The department chair will promptly notify the instructor of the formal appeal. Within two weeks of said notification, the instructor must then provide the department chair with a written response to the grade appeal. The department chair will then make an assessment as to the validity of the student's grievance and provide a written copy of the recommendation to both the instructor and the student.

Whatever the recommendation of the department chair, it remains the sole prerogative of the instructor to change the given grade. Exceptions to the policy time limits of both the informal and formal appeal processes may be permitted if the Academic Dean determines that clear and compelling extenuating circumstances have occurred.

### Incomplete

At the student's request, an instructor may agree to award an incomplete grade ('I') if the student has failed to meet a course requirement due to illness or other reasons beyond his or her control.

Students are authorized a maximum of two weeks into the next term to rectify a grade of Incomplete. If the Incomplete is not rectified within that period, the Incomplete is automatically converted to a failure ('F').

An extended period may be allowed by the instructor upon approval of the Vice-President/Academic Dean. The instructor shall submit a recommended grade to the Registrar within 48 hours of the extended period allowed above.

### **Course Exemption**

An exemption is awarded to a student who has been authorized by the Vice-President/Academic Dean or designee to omit taking a course. Exemptions apply only to the following:

- Through Advanced Placement examination, with a grade of 3 or better, the student has been determined to be proficient in course subject matter.
- Transfer credit may be awarded for International Baccalaureate (IB) higher level courses in which the student has earned a score of 4 or higher. Credit is not awarded for standard level courses. All decisions regarding transfer credit for IB courses will be made by the Registrar in consultation with the appropriate department chairperson;
- Through validation of grades received at another accredited institution of higher education with a grade of 'C' or better.
- Validation through analysis of certified professional licenses or transcripts of grades is made only by the Vice-President/Academic Dean or his designee.
- College Level Examination Program and ATP examinations with a score at or above the national mean may be accepted for exemption with the approval of the Vice-President/Academic Dean or his designee.

### **Transfer Credits**

In order for a student enrolled at the Academy to receive credit for a course taken at another institution, the following conditions must be met:

- The transfer course must be offered at an accredited institution.
- The catalog description of the course must be substantially similar to that of the corresponding Academy course and be of equal or greater credit hours.
- A request for approval to take the course for transfer credit must be submitted to the Academic Dean at least two weeks prior to the start of the course.
- A student who requests a transfer course while enrolled during a semester at the Academy as a full-time student will be reviewed specifically to determine whether the transfer course will constitute an overload or excessive load for the semester.
- Authorization to take the course for transfer credit will be granted or denied at the discretion of the Academic Dean with the advice and consent of the respective Chair of the academic department in which the course is offered at the Academy.
- A grade of 'C' or better (2.0 or higher) must be obtained for the course to be deemed successfully completed. The grade received for the course transferred will not be included in computing the student's CQPA.
- An official transcript showing completion of the course must be sent to the Registrar's office no later than six weeks after the course completion.
- With regard to on-line course offerings, a maximum of two courses will be eligible for transfer credit, but only one in a given academic department.
- No Standards of Training, Certification and Watchkeeping (STCW) course may be taken on-line.
- A student must be in good academic standing in accordance with MMA policy at the time of his/her request for taking an on-line course.

### **Add /Drop Period**

A student may add courses, consistent with other requirements, up to six business days into the semester. A student may drop a course, consistent with other requirements, up to fifteen business days into the semester.

## **Withdrawal Policy**

If a student wishes to withdraw from a course after the add/drop period, he or she must obtain written acknowledgment from the instructor, the student's academic advisor, and the Assistant Dean/Registrar. It must be understood that such withdrawal may affect the student's date of graduation, eligibility for financial aid, and class year designation. Students may withdraw from no more than one course per semester. No student may withdraw from a course after the tenth week of classes. Students may not withdraw from a course previously failed or from SM-1111. No student may withdraw from the same course more than once.

## **Quality Points**

The student academic record contains an alphabetical grade for each course, a semester hour credit for each course, and a quality point notation for each course. The quality point is the product of the alphabetical grade 4.0 point equivalent and the semester hour grade, e.g., grade 'B' (3.0 points) times 3 semester hour credits = 9 quality points.

At the end of each term, the quality points for each course are added together and the sum divided by the total of all credit hours to obtain a Term Quality Point Average (TQPA).

At the end of each academic term, the Cumulative Quality Point Average (CQPA) is computed by dividing the total number of quality points earned by the student since entrance to the college by the total number of credit hours.

## **Pass–Fail Course Option**

*Eligibility:* In order to be eligible to request the Pass–Fail course option, a student must have a current academic standing of junior or senior status and a cumulative GPA of 2.5 or greater. The option of any given free elective course to be taken for a Pass–Fail grade is at the sole discretion of the affected instructor. In order to take an eligible course as Pass–Fail, the student must have a fully completed request form submitted to the Registrar prior to the end of the Add/Drop period, otherwise the student will be graded according to the existing Academic Standards. Note: A student may take no more than one Pass–Fail course in a given semester and no more than two Pass–Fail courses as part of his or her overall curriculum.

*Eligible Courses:* As a general rule, the following courses are eligible for the Pass–Fail option: any elective course taken to fulfill an academic minor course requirement, any non-directed Humanities Group I or II taken as a free elective, any non-directed Social Science Group I, II, or III taken as a free elective, or any departmental course taken as a completely free elective. Note: Any curriculum required general education course, support course, major course, or STCW course is not eligible for the pass-fail option.

*Grading:* The student's grade shall be evaluated the same as all other students taking the course. The student shall receive a P for a grade that exceeds the instructor's established passing benchmark. The student shall receive an F for a grade that falls below the instructor's established passing benchmark. A passing grade of P will not affect the student's overall GPA and will be excluded from any GPA calculations. However, a failing grade of F will negatively affect the student's GPA by the applicable course credit being added to the semester and cumulative GPA calculations.

## **STCW Compliance**

The international convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) is an international treaty that established minimum curriculum standards and performance measures for maritime training programs. Certain courses are designated as containing STCW Knowledge or Practical elements. All students, regardless of major, must earn a 'C-' or better to pass any course containing STCW knowledge components and must successfully complete all practical demonstrations in any course containing STCW Practical elements. Any STCW course serving as a prerequisite for another course must be passed with a minimum grade of C- to satisfy the prerequisite unless otherwise specified in the course description.

In addition, students majoring in Marine Engineering or Marine Transportation must complete all STCW requirements for issuance of the appropriate U. S. Coast Guard merchant marine officer's license.

### **Mathematics at MMA**

Because the MMA degree program curricula are Science, Technology, Engineering and Mathematics (STEM), a solid foundation in mathematics is expected of all students. Proficiency in mathematics is absolutely essential for success in these programs. The Academy, therefore, urges students whose *Accuplacer* College Level Mathematics scores indicate the need for remedial work (score less than 40) to improve their mathematics skills prior to their first semester. Any student who successfully completes one of the three remediation options prior to the start of the fall semester will not need any additional remediation. Historical data show that students in need of remediation have a significantly reduced chance of performing to standards in the Algebra/ Trigonometry course. **Any student who scored less than 40 on the Accuplacer College Level mathematics and did not successfully complete any of the three remediation options prior to the fall semester will be limited to 12 course credits for the first semester.** Although the student will be placed in Algebra/Trigonometry, the student will find the course very challenging and will struggle to learn new concepts and skills without the benefit of having mastered those skills expected of entering college students. **In fall semester, the student will also be required to undertake six (6) hours of mandatory tutoring per week offered through the Academic Resource Center.**

### **Academic Advising**

The academic advising system is an integral part of the student experience at MMA. Students are able to rely on the experience of the faculty and the up-to-date information faculty provide in order to facilitate their studies.

Faculty Advisors are available to assist students in developing their educational plan; in selecting a major, minor, or concentration; and in registering for courses. The advisor may provide guidance regarding academic alerts, mid-term deficiency reports, and academic probation. Most importantly, advisors are available to students seeking assistance concerning course material. In short, the academic advisor's knowledge and experience can be valuable resources for students.

### **Academic Resource Center**

The Academy is firmly committed to assisting students in maintaining satisfactory progress in their degree programs by providing assessment, tutoring, and advising resources through its Academic Resource Center (ARC), located on the third floor of the ABS Information Commons. The ARC provides tutoring throughout the academic year at no cost to students. It comprises three academic support units: the Assessment and Advising Center (AAC), the Learning Resource Center (LRC), and the Writing Resource Center (WRC). Services are offered in a supportive, accommodating learning environment by appointment and on a drop-in basis. ARC services and resources impart valuable skills for success in college.

Each ARC unit provides critical support in a particular area. The AAC administers standard assessment instruments and evaluates student proficiencies. AAC offers drop-in academic advising to all students regardless of major and are meant to supplement Faculty Advising, not replace it. The LRC offers tutoring in science, mathematics, engineering, and a variety of technical and business courses. The WRC offers tutoring in written and verbal communication to support literature and composition courses as well as many other courses with an oral or written communication component. The WRC also assists students with professional correspondence relevant to their future professional careers.

Students are strongly encouraged to utilize the services and resources available at the Academic Resource Center, whose primary mission is to help them achieve success in their academic programs.

## **Academic Assessment**

Massachusetts Maritime Academy is committed to maintaining academic excellence and continuously improving the quality of our academic programs. An ongoing Outcomes Assessment Program assesses and monitors the effectiveness of instruction and learning in order to identify academic weaknesses and areas of potential improvement. All faculty and students participate in a variety of individual and program assessments to meet these objectives. The names of students and faculty members are not used during the assessment process or when reporting results.

Students are assessed in five Core Competency areas described below. These competencies are the essential skills and abilities that provide the educational foundation for all other courses, as well as for success beyond the Academy. They are introduced, reinforced, or incorporated into many courses throughout the curriculum. All students who graduate from Massachusetts Maritime Academy should achieve competency in the following areas:

*Communication:* Students should be able to read, write, and speak effectively in a variety of styles appropriate to a variety of audiences.

*Scientific Literacy:* Students should be able to understand the scientific method and how it is applied to establish new knowledge.

*Quantitative Literacy:* Students should be able to analyze and interpret numerical data and reason with quantitative information.

*Higher Order Thinking:* Students should be able to apply the elements of reasoning and be able to use criteria and intellectual standards in order to make decisions, analyze arguments, solve problems and create original ideas.

*Technology Literacy:* Students should be able to apply computer technology skills to acquire, organize, analyze, and communicate information.

## **Learning Outcomes**

Consistent with its mission of providing each undergraduate student with educational experiences employing both conventional classroom instruction and practical, hands-on experience in state-of-the-art simulators, aboard a seagoing training vessel, in shoreside laboratories, and in the workplace, Massachusetts Maritime Academy identified in 2010 the following student learning outcomes acquired by the typical students while completing an MMA degree program:

### *Intellectual Learning*

- Competency in written, oral, and listening skills;
- Ability to critically and creatively comprehend and evaluate new information and ideas;
- Ability to use quantitative reasoning skills, apply basic concepts of mathematics and science and utilizing relevant computer skills;
- Basic knowledge and understanding of the social, physical, and life sciences;
- Competency within the major.

### *Leadership & Personal Development*

- Ability to work and achieve goals as a member of a team;
- Ability to make rational decisions while complying with a set of standards;
- Ability to perform and behave in a professional manner acceptable for career goals;
- A sense of curiosity;
- Ability to make appropriate future decisions based on past and present conditions and circumstances.

### *Global Awareness & Social Responsibility*

- A sense of global awareness and social responsibility;
- Ability to make decisions and act in a socially responsible manner.

## Methods of Assessment

The Outcomes Assessment program relies on a number of different tools for measuring the effectiveness of the educational process, including the following:

*Departmental Self Study:* Every five years, each academic department conducts a self-assessment using appropriate guidelines and develops a five-year strategic plan based on the assessment results and recommendations from external reviewers. Self-studies assess curriculum, faculty and available resources.

*Writing Assessment Program:* Commencing with the class of 2017 (fall semester 2013), all incoming students will be required to participate in a writing assessment program, which includes a writing placement test to evaluate the writing skills of all incoming first-year students, a sophomore writing proficiency examination (WPE), and the completion of a final junior writing proficiency portfolio. All students must pass the WPE and the portfolio assessment as part of the graduation requirement.

*United States Coast Guard License Examination:* This is a standardized examination administered by the United States Coast Guard to the two maritime majors. Marine Transportation students are examined in Rules of the Road, General Deck Questions, General Navigation Questions, Safety, and Navigational Problems. Marine Engineering students are examined in General Subjects, Electricity, Steam Plants, Motor Plants, and Engineering Safety.

*STCW—Standards for Training, Certification and Watchkeeping for Seafarers Quality Standards System:* The International Maritime Organization requires all training and assessment to be “continuously monitored through a quality standards system to ensure achievement of defined objectives.” Each student must meet qualifications in both academic coursework and practical training areas. Courses in Marine Transportation and Marine Engineering have been designed such that the defined standards are embedded throughout the course and assessed through written and oral projects, examinations, and practical performance. All students participating in STCW courses are held to the same standards, regardless of major.

*FEQE—Facilities Engineering Qualification Examination:* The FEQE is required of all Facilities Engineering majors in order to graduate. The examination was developed by the Engineering department to serve as the primary assessment tool for the major and is comprised of two sections. Section One includes required assessment in auxiliary machinery, commercial boilers and conversions, and mathematics. The remaining assessment areas are chosen by the students from a variety of subjects in the field. Section Two of the examination is based on English composition.

*Marine Engineering Qualification Program:* All Marine Engineering students participate in the Marine Engineering Qualification Program. The purpose of the program is to insure that each student in the Marine Engineering Program attains an increasing level of shipboard engineering expertise each year while at the Academy, can operate the training ship machinery efficiently and safely, and can demonstrate a satisfactory level of basic engineering knowledge prior to graduation.

*ETS Proficiency Profile:* Administered by ETS, provided entrance and exit benchmarking for general education subjects.

### Sophomore Writing Proficiency Exam (WPE)

All eligible students with Sophomore status will retake the Writeplacer *Plus*® exam fourth semester, and MMA writing faculty will evaluate these written responses based upon a rubric designed to reflect national college-level writing standards. Students will be assessed as either passing or failing this exam, and failing students will receive faculty feedback on their writing strengths and weaknesses. Failing students will be given the option to retake the exam before the end of the semester. Students who fail the second attempt, or who do not retake the exam, will be required to take writing intensive course, HU-6062 Writing in Style, a Humanities Group II elective, prior to further testing. To be eligible for the WPE, a student must have Sophomore status and have passed *English Composition* (or its equivalent) with a C- or above, and passed *Analysis and Interpretation of Literature*.

## **Junior ePortfolio Assessment**

All students who have passed the Sophomore WPE will receive a final writing assessment before graduation based upon written artifacts submitted as an ePortfolio in Taskstream. Students are required to submit a minimum of 3500 words (8 pages) and a maximum of 7000 words (16 pages) per portfolio for assessment, broken down as follows:

- An approximately 1,000 – 2,000 word paper from HU-1111, *English Composition* and/or HU-1222, *Analysis and Interpretation of Literature*.
- An essay or report from any other course taken at MMA, preferably from a course in the student's major.
- Introduction to Commercial Shipping Project for MT and ME majors; Introduction to Co-op Project for all other majors.
- A 500-1,000 word cover letter for the Portfolio describing the audience and the purpose for the assignments, and reflecting upon the writing process and the strengths of the final portfolio.

Portfolios will be assessed by two writing faculty using the Writing Assessment Program rubric. Evaluation will fall into the following categories:

- *Pass with Distinction*: work represents the top 10% of junior-level writers
- *Pass*: work shows proficiency in writing suitable for upper-division work and graduation
- *Needs Work*: demonstrates a need for additional, structured writing assistance

***The writing portfolio must be assessed as either ‘Pass with Distinction’ or ‘Pass’ in order for the student to graduate.***

## **Portfolios in the “Needs Work” Category**

Students whose writing portfolio is deemed “Needs Work” will be provided with a recommendation for additional coursework or with strategies for improving their portfolio submission. Upon completion of the recommendation, the student will resubmit the writing portfolio. Students who do not pass the final portfolio assessment will have the right to appeal the decision. The appeal must be in writing, submitted to the Humanities Department chair within seven days of notification of failure, and must point to specific evidence from the portfolio in support of the student's argument. Portfolios under appeal will be re-evaluated.

## **Non-Regimental Commuter Student Status**

MMA has always been a regimentally based student life program, with only 1% or 2% non-regimental commuter students on campus at any one time. Non-traditional students may seek to enroll in Facilities Engineering, Energy Systems Engineering, Marine Safety and Environmental Protection, International Maritime Business, or Emergency Management programs as non-uniformed, commuter students. Non-regimental commuter status is limited to non-traditional students with unique situations such as prior military service, a prior degree (associates or bachelors), or considerable life experience. To be considered for enrollment, a prospective non-traditional student must petition, in writing, the Dean of Enrollment Management. Acceptance will be determined, on a competitive basis, by a committee composed of the Dean of Enrollment Management, the chair of the applicable department, and the Registrar. Curriculum for non-regimental commuter students is adjusted slightly to remove the freshman sea term experience and possibly Sea Term related freshmen courses.



# Academic Standards

The following minimum standards are established for Cumulative Quality Point Averages (CQPA):

Class	Retention		Good Standing	
	Fall Semester	Spring Semester	Fall Semester	Spring Semester
Freshman	1.0	1.5	1.5	1.8
Sophomore	1.5	1.8	1.8	2.0
Junior	2.0	2.0	2.0	2.0
Senior	2.0	2.0	2.0	2.0

## Academic Evaluation

Faculty have several tools in addition to end of the semester grading to measure a student's progress towards successful completion of a course. A member of the faculty may opt to use the "Academic Alert System" and/or "Mid-Term Deficiencies" as a means of sharing with the student that the student is not performing to a level necessary to pass the course. When a faculty member uses either of these tools, the information is disseminated to the student and to his or her faculty academic advisor.

## Academic Board

The Academic Board reviews the academic status and potential of those students subject to dismissal from the Academy. The Board is empowered to recommend mitigation of a student's academic dismissal to suspension, or probation.

The Academic Board is composed of the department chairpersons; the Registrar and the Vice-President/Academic Dean. The deliberations of the Academic Board are conducted in accordance with procedural rules adopted on its motion. Recommendations are submitted to the President for consideration and final disposition.

Students who fail to meet the standards for retention may be dismissed from the Academy at the discretion of the Academic Board.

## Academic Dismissal

Academic dismissal constitutes the removal of a student from the Academy because he or she was unable to achieve minimum academic standards.

Students who are academically dismissed from the Academy may not take courses through the Academy's standard "day" program or through its Division of Graduate and Continuing Education. An academically dismissed student may apply for readmission to the Academy only after having completed at least twelve (12) credits approved by Massachusetts Maritime Academy at other accredited institutions and achieving a minimum overall GPA of 2.5 at those institutions. Readmission to full-time regimental status at MMA will be on a space available basis.

Any student falling in one or more of the following categories will be subject to dismissal from the Academy:

1. having failed to meet the minimum standards established for retention;
2. having failed three or more courses;
4. having been unable to achieve academic good standing after being on probation for two consecutive semesters;
5. having failed to advance to the next level of academic standing after three or more semesters.

## Academic Suspension

Academic suspension constitutes temporary removal from the college for academic deficiencies that must be rectified before readmission, as identified by the Academic Review Board. The conditions of suspension include a written notification to the student of the course(s) that must be successfully completed either at MMA, as a non-matriculated student, or at another accredited institution of higher

learning before he or she can be considered for readmission to the college. The Academic Dean will determine the grade and/or grade point average the student must achieve to be considered for readmission to MMA. Suspension will automatically result when a student fails to complete SM-1111 *Algebra and Trigonometry* by the end of the second semester at the Academy.

In order to be considered for readmission, subject to the Academic Dean's approval, a student who fails to complete SM-1111 *Algebra and Trigonometry* by the end of the second academic semester may

1. re-take the course at MMA, as a non-matriculated student, and earn a passing grade (D- or better), or
2. Take a similar, pre-approved course at another accredited institution of higher learning and earn a grade of "C" or better.

### **Academic Probation**

Probationary status is a warning to a student that he or she is no longer in academic good standing and is in jeopardy of falling below those standards established for retention or graduation. It is the responsibility of the student to increase his or her academic efforts in order to regain academic good standing.

Probation will automatically result when

1. CQPA falls below those numbers established for good academic standing;
2. an accumulation of course failures has occurred to the extent that graduation will not be possible;
4. a student is readmitted following academic suspension or dismissal.

A student will be removed from academic probation by

1. raising his or her CQPA to the level necessary to be in good academic standing;
2. repeating and obtaining a passing grade in a course necessary to be in compliance with graduation requirements.

A student cannot remain on academic probation for more than two consecutive semesters without being subject to dismissal from the Academy.

### **Course Failures**

A student must receive a passing grade (D- or better) to receive credit for a course. A student who fails a course has three options:

1. Repeat the failed course on campus. The repeated course grade and credit hours (see "Forgiveness of One" Policy) will be used in calculating the term quality point average of the term in which the course is repeated. The CQPA will include the repeated grade and credit hours only;
2. Retain the failed grade without repeating the course if his or her CQPA and total course completions are sufficient for graduation. Note: This option does not apply in the case of required courses;
3. Repeat the failed course, or equivalent, at another accredited institution. A grade of 'C' (2.0) or better will be required for the course to be deemed successfully completed. Transfer grades will not be used in computing the CQPA (see Section on Transfer Credits).

### **Repeated Courses**

A student may repeat a course previously passed (but never failed) once within one year of the original grade. The repeated course grade and credit hours will be used in calculating the term GPA of the term in which the course is repeated. The CQPA will be computed using the higher of the two grades and credit hours.

### **"Forgiveness of One" Policy**

This policy, implemented in the fall of 2012, allows a student to replace a failed or lower grade in the CQPA with a higher grade only by achieving a higher grade on the next attempt. If a student fails a course twice and passes it on the third attempt, then one of the two failed graded will impact the

student's CQPA. If a student were to fail a course on multiple attempts, all but the first failure would impact the CQPA.

### **Progress Toward a Degree**

A student is deemed to be making acceptable progress toward a degree if the student maintains Good Academic Standing and retains the same Academic Year Designation for no more than three academic semesters.

Students who are not making acceptable progress toward a degree will be reviewed by the Academic Review Board.

A student must complete all degree requirements, including license programs, within ten years from the original date of enrollment. All courses, taken either at MMA or at another accredited institution, will have a ten-year time limitation except where Coast Guard regulations otherwise require. Exemptions to the ten-year limit may be considered on an individual basis when recommended by the Academic Dean and the President of MMA. Factors that may result in a waiver might include time spent on humanitarian efforts or military service.

### **Engineering Department STCW Grading Policy**

Existing STCW policy requires a passing grade of 70 or higher for any required STCW course. An STCW grade below 70 results in the requirement to repeat the applicable STCW course. To establish a clear Engineering Department policy and to make clear student expectations, the Engineering Department has established a no "D" grading policy for any STCW course taught by the Engineering Department. Therefore, the Engineering Department STCW course grading policy is: A, A-, B+, B, B, C+, C, C-, and F. The following required STCW courses are taught by the Engineering Department and fall under this policy:

- EN-1112 Engineering Systems and Safety
- EN-1211 Auxiliary Machinery I
- EN-1222 Auxiliary Machinery I for Facilities
- EN-2111 Auxiliary Machinery II
- EN-2121 Auxiliary Machinery II for Facilities
- EN-2112 Machine Tool Technology
- EN-2231 Sea Term II – Engine
- EN-2232 Internal Combustion Engines I
- EN-3111 Electrical Machines
- EN-3111L Electrical Machines Lab
- EN-3131 Steam Generators
- EN-3212 Electronics
- EN-3213 Refrigeration
- EN-3216 Operational Controls
- EN-3233 Steam and Gas Turbines
- EN-4112 Thermodynamics/Fluids Lab
- EN-4131 Internal Combustion Engines II
- EN-4151 Applied Naval Architecture for Marine Engineers
- EN-4231 Sea Term IV – Engine
- EN-4234 Engine Room Resource Management

### **Academic Set Back**

Academic set back may be granted by the Academic Board when it believes that a student otherwise subject to academic dismissal may benefit by repeating an academic semester at the Academy. A set back student will retake at least three courses for which he/she previously received grades of D+ or lower. Grades earned will replace the previous grades in the calculation of the QPA. The student remains on academic probation during the set back semester and must either bring his/her CQPA up to retention standards at the end of the semester or be dismissed from the Academy. Students who accept set back will thereafter wear the name tag color of the following year's class.

*Eligibility:* A student must have sophomore status or higher as defined by the academic standards to be eligible for academic set back, and a student is allowed only one set-back while at the Academy.

*Restrictions:* A student on academic set back:

1. must retake at least three courses;
2. may not take more than one course not taken previously;
3. may not take more than 13 academic credits;
4. may not hold any regimental or shipboard leadership position;
5. may not participate in Academy sponsored clubs, extracurricular activities, or varsity athletic programs.

### **Academic Year Designation**

Students in a degree program have the academic year designation of freshman, sophomore, junior, or senior.

A sophomore has successfully completed at least one-fourth of the courses required for the degree program, including all but two required first-year courses.

A junior has successfully completed at least one-half of the courses required for the degree program, including all required first-year courses and all but two required second-year courses.

A senior has successfully completed at least three-quarters of the courses required for the degree program, including all required first-year and second-year courses and all but two required third-year courses.

### **Class Designation**

Members of the Regiment of Cadets are designated 1/C, 2/C, 3/C, and 4/C depending on the number of years enrolled at the Academy.

4/C status: Cadet Candidates receive recognition as 4/C cadets during the fall semester.

4/C to 3/C status: Students must have successfully completed all but two freshman requirements and must have a 1.8 cumulative GPA.

3/C to 2/C status: Students must have successfully completed all freshman requirements, must have successfully completed all but two sophomore requirements, and must have a 2.0 cumulative GPA.

2/C to 1/C status: Students must have successfully completed all freshman and sophomore requirements; must have successfully completed all but two junior requirements, and must have a 2.0 cumulative GPA.

4/C to 3/C status (transfer students): Students must meet all of the following requirements:

- Complete Fall semester at MMA
- Complete Sea Term I or Experiential Learning (if required by major)
- Transfer credits + MMA credits + Winter requirement must total at least
  - 51 credits for Marine Transportation/Marine Engineers
  - 48 credits for Marine Safety & Environmental Protection/Emergency Management
  - 45 credits for International Maritime Business/Facilities Engineers/Energy System Engineers
- Completed English Composition I
- Completed Algebra/ Trigonometry
- Completed Chemistry I
- Have a minimum CGPA of 1.8

The registrar automatically reviews all 4/C transfer students for the possibility of bumping up during the winter term. No action is needed by the student. Transfer students' class year designation is determined on an individual basis by the Vice President for Student Services based on the anticipated graduation date.

## **Academic Honesty**

Massachusetts Maritime Academy expects all cadets and students to abide by its Honor Code which states: Cadets and Students do not lie, cheat or steal nor do they tolerate these acts from others.

The Cadet Regimental Manual clearly outlines the various actions that may be considered cheating. These include plagiarism, misrepresentation, and unauthorized notes, among other things. Individual instructors may set the requirements for their courses as they wish, and students should make sure they understand these requirements.

Academic freedom has traditionally allowed instructors to deal with academic dishonesty in many ways, including (but not limited to) requiring the student to redo an assignment, assigning a grade of zero for the test or assignment, or failing the student for the course. When the situation warrants, the instructor may also refer the matter to the Honor Board, which may recommend suspension or dismissal from the Academy for violations of the Honor Code.

## **Awards and Honors**

At the end of each academic term, the grades awarded to full-time students are reviewed and, for students with no incompletes or grades below C-, academic proficiency noted as follows:

Dean's List	TQPA of 3.3 – 3.59
President's List	TQPA of 3.6 or higher

A cadet who appears on the Dean's List or the President's List is entitled to wear the appropriate ribbon on his or her uniform. All ribbons will be awarded by the Commandant of Cadets at the appropriate time.

## **Graduation**

To be eligible for graduation and receive a Bachelor of Science degree a student must

1. be recommended for the degree by the appropriate department in recognition of satisfactory completion of the minimum number of courses and credits as established in the degree curriculum;
2. maintain a CQPA of 2.0 as well as a Quality Point Average (QPA) of 2.0 in the major;
3. have not failed, without repeating successfully, any courses in the required curriculum. Only failures in courses not required to complete the degree requirements are allowed;
4. maintain prescribed standards of conduct and aptitude;
5. discharge all financial obligations to the Academy;
6. successful completion of applicable U.S. Coast Guard license examinations prior to receiving a degree in Marine Engineering or Marine Transportation, as required by the Maritime Administration (MARAD).

Academic excellence for the baccalaureate program is recognized by awarding degrees summa cum laude (CQPA of 3.8 or higher), magna cum laude (CQPA of 3.6 to 3.79), and cum laude (CQPA of 3.3 to 3.59). The CQPA determined for honors is based on all college-level work attempted at Massachusetts Maritime Academy. Students who received three or more "F" grades at MMA are not eligible for graduation honors.

The commencement booklet is printed prior to grades being submitted for the last term. Therefore, the Office of the Registrar must print the honors designation that a student has earned up to but not including his or her final semester. The student's official degree transcript will reflect the appropriate honors designation.

### **Rule of One**

**The graduation "Rule of One" Policy is as follows: "The Massachusetts Maritime Academy graduation policy permits students who are delinquent in not more than one course, one Sea Term or one Co-op to participate in June graduation exercises."**

## **ACADEMIC SUPPORT SERVICES**

### **Academic Faculty Advisor**

Your academic advisor's name and contact information can be found under "My Profile" on WebAdvisor. Schedule an appointment and introduce yourself to your advisor. You should meet with him/her at least twice during a semester so that your program will proceed smoothly. If you are deficient in any subject, you are required to meet with your advisor. Faculty Office Hours are posted on their office doors, written on course syllabi, and available in the Academic Dean's office. The Academic Advising Center, located in the Academic Resource Center, offers drop-in academic advising to all students regardless of major and is meant to supplement Faculty Advising, not replace it.

### **Cadet Training and Retention Officer (CTRO)**

There is a 1/C cadet officer in each company who is charged with the oversight of training and retention initiatives at the company level. Such initiatives include in-company tutoring programs and academic early-alert notification.

### **American Bureau of Shipping Information Commons**

This facility welcomes you to an outstanding collection of books, periodicals, newspapers, media and databases. This library contains more than 50,000 volumes and 175 newspaper and periodical subscriptions. CD-ROM discs and workstations maintain up-to-date data on the Code of Federal Regulations, environmental issues, and marine technology. The Information Commons is fully automated through the Southeastern Automated Library System, affording over two-million volumes by courier service.

During the academic year the Information Commons is open as follows:

Monday-Thursday:	0730-2200	Friday:	0730-1600
Saturday:	1000-1600	Sunday:	1400-2200

### **Academic Resource Center**

Dr. Mark Patrick, Assistant Dean of Academic Affairs, is the coordinator of tutoring services available to all students through the Academic Resource Center. The ARC has two tutoring components, the Writing Resource Center (WRC) and the Learning Resource Center (LRC). Both are located on the third deck of the ABS Information Commons. The goal of the WRC is to provide assistance with writing in all courses. The WRC is open every Monday – Thursday from 0900 – 1600 and from 1900 – 2200 during the academic year. The program objective of the Learning Resource Center is to support students by enhancing their understanding of course material and fostering effective problem-solving skills for utilization in mathematics, engineering and science. The LRC is open every Monday – Thursday from 1900 – 2200 during the academic year. The LRC is also open throughout the fall semester during the day for tutoring in Algebra and Trigonometry. The hours vary from year to year based on tutor availability and will be posted in the LRC. LRC daytime hours will be emailed to all students who are required to attend mandatory Algebra and Trigonometry tutoring and to all students registered in Algebra and Trigonometry once the LRC is fully staffed.

Basic Skills Tutorials in Writing, Engineering, Science and Mathematics are available on two levels:

- a. Cadet tutorials – taught by upperclassmen who have demonstrated competence in Basic Skills.
- b. Faculty tutorials – taught by faculty members in Humanities, Engineering, and Science and Mathematics and by other individuals competent in these disciplines.

## **Disability Resource Office**

Because Massachusetts Maritime Academy is dedicated to the equality of educational opportunity, it is strongly committed to the creation of a campus environment free of discrimination and bias in matters affecting students with documented learning or other disabilities.

All students who are eligible for academic accommodations due to a documented learning and/or other disability are requested to contact Dr. Frances Tishkevich, Professor and Disability Resource Officer at (508) 830-5000, ext. 2208 or at [ftishkevich@maritime.edu](mailto:ftishkevich@maritime.edu). Her office, H-311A, is located on the third floor of the Harrington Building. Dr. Tishkevich is your liaison and will provide you with academic accommodation verification letters for each of your professors, as warranted.

## **Eligibility Criteria for the Shanghai Maritime University and Dalian Maritime University Exchange Programs**

The following criteria need to be met for MMA cadets to participate in a formal exchange program between the Massachusetts Maritime Academy and Shanghai Maritime University and between the Massachusetts Maritime Academy and Dalian Maritime University. These criteria are only the minimum standards.

A formal application from those interested in participating must be submitted no later than the last day of September of the sophomore year. The selection committee will consist of the Registrar, a representative from the Commandant of Cadets, and the Academic Department Chairperson from the applicant's major. Committee members will select candidates who have met the following criteria and who represent the best of the Massachusetts Maritime Academy:

1. For the SMU exchange program a student must be majoring in Marine Transportation, Marine Engineering, Facilities Engineering, International Maritime Business, or Marine Safety and Environmental Protection. The DMU exchange program is limited to International Maritime Business students only
2. A student must achieve sophomore academic designation and 3/C Regimental status by the start of the third semester at MMA.
3. A student must achieve junior academic designation and 2/C Regimental status by the start of the fifth semester at MMA.
4. A student must have a cumulative GPA of at least 2.5.
5. A student must participate in the "Hosting" program at MMA.
6. A student must successfully complete three semesters in residence at MMA prior to hosting a student from SMU or DMU.
7. A student must successfully complete Chinese I prior to spending the semester in China.
8. A student will receive preferred consideration after having demonstrated leadership potential through participation in extracurricular activities.
9. A student must be able to represent the United States and the Massachusetts Maritime Academy well.
10. A student must be in excellent standing within the Regiment of Cadets. The cadet's record will be clear of trends of problem behavior and and/or major offenses (Class II and above).
11. A student must have demonstrated satisfactory effort, participation, care and judgment while serving as a host for a SMU or DMU roommate during the 3/C spring semester.
12. MMA Cadets with "host" status but no SMU or DMU roommate will be considered on a probationary status. Cadets will need to demonstrate the ability to care for an exchange student at the Academy as the cadet would like to be treated while at SMU or DMU.

Cadets fortunate enough to be selected will also be held to the highest standards of behavior while studying abroad. Cadets will be charged appropriately for conduct unbecoming of MMA cadets while abroad. Those charges will be adjudicated by MMA according to the recommended processing times listed in the regimental manual.





Fall Semester 2015

TO: License Track Cadets  
FROM: STCW Quality Standard System & Advisory Council

MMA received USCG approval the Marine Transportation and Marine Engineering curriculum satisfying the STCW 2010 Manila Amendments in the spring of 2013. Effective 3 September 2013, the following policies apply to all MT and ME students in the classes of 2016, 2017 and beyond.

In order to satisfy knowledge based STCW sign-offs imbedded in a course, the student must earn a 70% (C-) in the course. If a student earns less than 70%, the course must be retaken in order for the student to receive STCW credit.

Failure to satisfactorily complete all practical assessments in STCW courses will result in an "Incomplete" as the present rules define.

Incomplete rule: Students are authorized a maximum of two weeks into the next term to rectify an incomplete. If the incomplete is not rectified within that period, the incomplete is automatically converted to a failure. An extended period may be allowed by the instructor upon approval of the Vice-President/Academic Dean.

The remediation and retesting policy for STCW practical based assessments rest at the discretion of the individual course instructor.

A handwritten signature in black ink, appearing to read 'Bradley K. Lima'.

CAPT Bradley K. Lima, MMA  
Chair, STCW QSS Council  
Dean & Vice President of Academic Affairs

CDR Linda Letourneau  
Chair, Marine Transportation Department

Professor George Howe  
Chair, Engineering Department

CAPT Thomas L. Bushy  
CDR William E. Haynes  
CDR Patrick J. Modic  
CAPT Joseph S. Murphy II

LT David E. Mahoney  
CDR Michael Cuff  
LCDR Marie Huhnke  
LT Earl Mayhofer

**MARINE TRANSPORTATION**

		Knowledge	Practical
MT-1221	Coastal Navigation	X	
MT-2121	Deep Sea Navigation	X	X
MT-2141	Ship Construction	X	
MT-2161	Rules of the Road	X	X
MT-2222	Celestial Navigation	X	
MT-3122	Radar Observer Certification	X	X
MT-3131	Meteorology	X	X
MT-3151	Dangerous Liquid Cargo	X	
MT-3221	Electronic Navigation	X	
MT-3222	Automatic Radar Plotting Aids (ARPA)	X	X
MT-3224	Electronic Chart Display & Information System (ECDIS)	X	X
MT-3261	Containerization and Modern Cargo Stowage	X	
MT-4122	Global Maritime Distress and Safety System (GMDSS)	X	X
MT-4132	Advanced Seamanship	X	
MT-4133	Bridge Resource Management	X	X
MT-4241	Stability and Trim	X	
MT-4251	Marine Safety	X	
MT-4253	Watch-Keeping Using Full-Mission Bridge Simulator		X
MT-4371	Sea Term IV (Deck)	X	X

**MARINE ENGINEERING**

		Knowledge	Practical
EN-1211/1222	Auxiliary Machinery I / Auxiliary Machinery I Facilities	X	X
EN-2111/2121	Auxiliary Machinery II / Auxiliary Machinery II Facilities	X	X
EN-2112	Machine Tool Technology	X	X
EN-2231	Sea Term II (Engine)	X	X
EN-2232	Internal Combustion Engines I	X	
EN-3111	Electrical Machines	X	
EN-3111L	Electrical Machines Lab		X
EN-3131	Steam Generators	X	X
EN-3212	Electronics	X	
EN-3213	Refrigeration	X	X
EN-3216	Operational Controls	X	
EN-3233	Steam and Gas Turbines	X	X
EN-4112	Thermodynamics/Fluids Lab	X	
EN-4131	Internal Combustion Engines II	X	X
EN-4151	Applied Naval Architecture for Marine Engineers	X	
EN-4231	Sea Term IV (Engine)	X	X
EN-4234	Engine Room Resource Management	X	

**COMMON COURSES/PRACTICAL TRAINING** - Course requirements pertain to both Marine Transportation majors and Marine Engineering majors.

		Knowledge	Practical
CC-LEAD	Regimental Leadership Program	X	
CC-MANT	Shipboard Maintenance	X	
EN-1112	Engineering Systems and Safety	X	
FF-0102	4/C Firefighting Practicum - Practical, Lecture and Exam	X	X
FF-0104	3/C Firefighting Practicum - Practical, Lecture and Exam	X	X
FF-0106	2/C Firefighting Practicum - Practical, Lecture and Exam	X	X
FF-0108	1/C Advanced Firefighting - Practical, Lecture and Exam	X	X

COMMON COURSES/PRACTICAL TRAINING (continued)		Knowledge	Practical
HU-1111	English Composition	X	
LB-0201	STCW Qualifications		X
LB-0202	STCW Lifeboatman Exam	X	
LB-0203	4/C STCW Immersion Suit Practical		X
MT-1121	STCW Basic Training	X	X
MT-1231	STCW Survival Craft	X	
PE-0031	4/C STCW Basic Safety CPR	X	X
PE-0032	1/C STCW Medical Care Provider	X	X
PS-0301	4/C STCW Personal Survival	X	X
SR-0401	4/C STCW Personal Safety/Social Responsibility	X	
SS-4123	International Law and Legislative Compliance for Mariners	X	
ST-0999	Sea Term I	X	X

# Academic Calendar

## 2015 Fall Term (73 Days)

Tuesday	1 September	Faculty Academic Orientation
Wednesday	2 September	Commence Classes 0800
Monday	7 September	Labor Day – No Classes
Wednesday	9 September	Last Day to Add Classes
Tuesday	22 September	Last Day to Drop Classes
Monday	12 October	Columbus Day - Holiday, No Classes
Tuesday	13 October	<b>Observe Monday Academic Schedule</b>
Monday-Friday	19-23 October	Registration for Winter Term
Tuesday	20 October	Deficiencies due to Registrar by 1000
Tuesday	10 November	Last Day to Withdraw from Classes
Wednesday	11 November	Veterans' Day - Holiday, No Classes
Monday-Friday	9 November-4 December	Pre-Registration for Spring Term
Tuesday	24 November	Commence Thanksgiving Break after Last Class
Wednesday	25 November	Thanksgiving Break Travel Day
Monday	30 November	Resume Classes
Friday	11 December	End Academics (All Classes)
Monday	14 December	Begin Final Examinations (All Classes)
Friday	18 December	Last day, Final Examinations
Tuesday	22 December	Final Grades Due to Registrar's Office by 0900
Monday	28 December	Academic Board Meets – 0900

## 2016 Sea Term (52 Days)

Friday	1 January	1/C Cadet Officers Report
Sunday	3 January	Winter Sea Term Begins
Saturday	9 January	Ship Departs Buzzards Bay
Sunday	21 February	Ship Arrives Buzzards Bay
Tuesday	23 February	End Winter Sea Term

## 2016 DGCE Winter Term

Monday	11 January	Commence Winter Academic Session
Friday	12 February	End of Winter Academic Session

## 2016 Spring Term (74 Days)

Tuesday - Friday	23-26 February	Late Registration for Spring Term
Monday	29 February	Faculty Academic Orientation
Tuesday	1 March	Commence Classes 0800
Tuesday	8 March	Last Day to Add Classes
Tuesday	22 March	Last Day to Drop Classes
Thursday	14 April	Commence Patriots' Day Weekend after last class
Monday	18 April	Patriots' Day Holiday - No Classes
Tuesday	19 April	<b>Resume Classes</b>
Tuesday	19 April	Mid-Term Deficiencies due to Registrar's Office by 1000
Monday - Friday	25 April - 20 May	Registration for Fall Term
Tuesday	10 May	Last Day to Withdraw from a Course
Monday - Thursday	16-19 May	License Examinations - Suspend Academic Classes <b>(Class of 2016 License Candidates only)</b>
Wednesday	25 May	Change of Command
Monday	30 May	Memorial Day Holiday – No Classes
Tuesday	31 May	<b>Observe Monday Academic Schedule</b>
Tuesday	7 June	End Academics (All Classes)
Wednesday	8 June	Begin Final Examinations (All Classes)
Tuesday	14 June	Final Examinations End
Thursday	16 June	Final Grades due to Registrar's Office by 0900
Saturday	18 June	Graduation, Class of 2016
Monday	20 June	Academic Board Meets – 0900

## 2016 DGCE Summer Term

Monday	27 June	Commence Summer Academic Session
Monday	4 July	4 <sup>th</sup> of July Holiday Observed – No Classes
Wednesday	3 August	End of Summer Term - Monday, Wednesday, every other Friday Class
Thursday	4 August	End of Summer Term - Tuesday, Thursday, every other Friday Class

## Full-Time Instructional Staff 2015-2016

### Science and Mathematics

Professor A. Woods, Ph.D. (Chair)  
Professor R. Aguilar, Ph.D.  
Assistant Professor G. Colón, Ph.D.  
Assistant Professor S. Cullipher, Ph.D.  
Associate Professor B. Dixon, Ph.D.  
Assistant Professor E. Farrington, Ph.D.  
Associate Professor J. Hyatt, Ph.D.  
Professor L. Kelleher, Ph.D.  
Assistant Professor R. Lam, Ph.D.  
Professor M. Loomis, Ph.D.  
Assistant Professor L. Noble, Ph.D.  
Assistant Professor L. Norman, Ph.D.  
Professor C. O'Donnell, Ph.D.  
Assistant Professor J. Rego, M.Ed.  
Assistant Professor D. Schmitter, Ph.D.  
Professor F. Tishkevich, Ph.D.  
Associate Professor D. Tzigantchev, Ph.D.  
Associate Professor S. Wilson, Ph.D.

### Humanities

Professor N. Ritschel, Ph.D. (Chair)  
Associate Professor E. Craghead, Ph.D.  
Assistant Professor M. Grohowski, Ph.D.  
Associate Professor J. Kearney, Ph.D.  
Professor J. Morgan, Ph.D.  
Professor K. Mudgett, Ph.D.  
Assistant Professor D. Palmer, M.A.

### Social Science

Professor C. Hannan, Ph.D. (Chair)  
Professor R. Carroll, LL.M., First Asst. Eng.  
Professor Q. Chen, Ph.D.  
COL T. Dilliplane, Assistant Professor, M.A.  
Professor R. Krishnasamy, Ph.D.  
Professor R. O'Leary, Ph.D.  
Professor R. Smith, M.A.

### Environmental Protection, Safety,

### &Emergency Management

Associate Professor F. Veale, J.D. (Chair)  
Assistant Professor G. Cadwalader, J.D.  
Professor G. Jaroslow, Ph.D.  
Professor K. Jop, Ph.D.  
Professor T. Lennon, J.D.  
Professor M. MacGregor, Ph.D.  
Assistant Professor H. Schrum, Ph.D.  
Professor A. White, Ph.D.  
Laboratory Technician  
T. McEnroe-Kent

### Naval Science

LT L. Hickey, B.S. (Chair)  
LT A. Jeter, B.S.

### Engineering

Professor G. Howe, M.S., Prof. Eng., CPE(Chair)  
CDR J. Bausch, Ph.D., 2<sup>nd</sup> Asst. ST, Unltd.  
Assistant Professor R. Camp, Ph.D.  
Professor D. DiMassa, Ph.D.  
Associate Professor M. Frain, Ph.D.  
LT R. Gill, M.S., CH Eng. ST, MT, Unltd.  
LCDR A. Gillis, M.S., 2<sup>nd</sup> Asst. ST, Unltd.  
CDR W. Haynes, M.S., CH Eng., 3<sup>rd</sup> Asst. MT, , Unltd., CPE  
LCDR T. Hibbert, M.S., CH Eng. MT, Unltd.  
LT O. Humphrey, 1st Asst. MT, Unltd, 2nd Asst. ST & G/T.  
Assistant Professor P. Lopez-Montesinos, Ph.D.  
LT D. Mahoney, B.S., CH Eng. ST, 3<sup>rd</sup> Asst. MT, Unltd.  
Assistant Professor F. Maleki, Ph.D.  
LT K. McClellan, M.S., 2<sup>nd</sup> Asst. ST, 3<sup>st</sup> Asst. G/T & MT, Unltd.  
LT J. McDonnell, M.S., 1<sup>st</sup> Asst. ST & G/T, 2<sup>nd</sup> Asst. MT, Unltd.  
LCDR C. Montanez, M.S., CH Eng. ST & MT, Unltd.  
CDR F. Murray, M.S., 1<sup>st</sup> Asst. G/T & MT, Unltd.  
CDR R. Phelan, B.S., CH Eng. MT, Unltd.  
LT D. Splaine, M.S., CH Eng. M/GT, 1<sup>st</sup> Asst. ST, Unltd.  
CDR T. Stanton, B.S., CH Eng. ST, MT, Unltd., CPE  
Instructor G. Stephens, M.S., CPE  
LCDR D. Trudeau, M.S., CH Eng. M/GT  
Laboratory Technicians  
P. Coleman  
W. Dunn  
L. Jones

### Marine Transportation

CDR L. Letourneau, M.Ed., Master, Unltd. (Chair)  
LCDR K. Arnold, Ph.D., Master, Unltd.  
LCDR J. Belle, J.D., Master, Unltd.  
LCDR G. Benway, M.S., 2<sup>nd</sup> Mate, Unltd., Master of Towing  
CDR T. Brady, M.S., Master, Unltd.  
LT K. Chicoine, B.S., Chief Mate, Unltd.  
LT P. Cunningham, B.S., Master, Unltd.  
CDR C. Dalton, M.S., Master, Unltd.  
CDR J. Fitzpatrick, Ed.D., Master, Unltd.  
CDR D. Mackey, M.B.A., Master, Unltd.  
LCDR C. McRae, Chief Mate, Unltd.  
CDR P. Modic, M.B.A., Master, Unltd.  
CAPT J. Murphy, M.S., Master, Unltd.  
STCW Compliance Officers  
B. Bosanquet  
E. Mayhofer  
E. Vacha  
Laboratory Technician  
K. DeCicco

### International Maritime Business

Professor M. Ghosh, Ph.D. (Chair)  
Professor A. Dasgupta, Ph.D.  
Associate Professor P. Ndlovu, Ph.D.  
Professor P. Szwed, Ph.D.  
Assistant Professor S. Tian, Ph.D.

## MASSACHUSETTS MARITIME ACADEMY REFUND POLICY ACADEMIC YEAR 2015-2016

**MAPS - Maritime Academy Preparatory Seminar** – No refund of MAPS fees after the first day of classes. 50% refund before the end of the first day.

**Orientation 2015** – No refund of Orientation fees after the first day of Orientation.

### **PLEASE NOTE:**

**THERE IS NO REFUND OF ROOM AND BOARD AFTER START OF ACADEMIC TERM.**

**Withdrawal refund policy applies to students who withdraw during the academic term.**

**Students who are dismissed for non-academic reasons receive no refund of tuition, fees, room, and board charges.**

### **Academic Semesters**

Withdrawal before the first day of classes: full refund of tuition, fees, room and board charges.

Withdrawal during first week of classes: **80% refund of tuition and fees. No refund for room & board charges.**

Withdrawal during second week of classes: **50% refund of tuition and fees. No refund for room & board charges.**

Withdrawal during third week of classes: **20% refund of tuition and fees. No refund for room & board charges.**

Withdrawal after third week of classes: **No refund.**

Withdrawal from the training cruise, cooperative education, commercial shipping, or experiential learning, on or after the first day: **No refund**

All other fees and charges are non-refundable unless specifically stated in the 2015-2016 College Catalog.

**ALL WITHDRAWALS ARE ASSESSED A \$100.00 ADMINISTRATIVE FEE.**

### **Consumer Information Regarding Refunds**

The MMA refund policy applies to any student who *officially withdraws* from the Academy. A student who wishes to withdraw must complete the appropriate forms available at the Registrar's Office. The date this notice is received by the Registrar's office is the effective date for determining the refund. Refunds will be made in the following order:

1. To federal financial aid programs in accordance with the *Federal Return of Title IV Funds* requirement,
2. To state financial aid programs in accordance with applicable state regulations,
3. To individual scholarship donors in accordance with their policies,
4. To the student.

Students who receive any Title IV (Federal) Financial Aid including grants, scholarships, and federal loans are subject to the Federal Return of Title IV Funds requirement. The same calculation will be used to determine the amount of institutional scholarships a withdrawn student is eligible to retain.

MMA must return federal grants, scholarships and loans to the federal government based on the student's length of enrollment. The student may retain *only a pro-rated portion of the aid awarded* based on the length of the term and the student's withdrawal date. The remainder of the student's federal aid must be returned by MMA to the Department of Education. If the student received a cash disbursement of federal aid, he or she may owe a repayment to the federal government.

The Federal Return of Title IV requirement applies to all students who withdraw completely from the academy, including students who do not follow the official withdrawal process. The requirement remains in effect through the 60% point of the semester. After that point, the student is considered entitled to all aid awarded for the semester.

*Students who receive financial aid and withdraw may owe a repayment to MMA and/or the federal government.*

## **SATISFACTORY ACADEMIC PROGRESS FOR FINANCIAL AID**

In accordance with Federal and State Regulations, all students who apply for Federal, State and institutional financial assistance including federal student loans and parent PLUS loans must maintain satisfactory academic progress. A large number of private, credit-based alternative loans also require that the student maintain satisfactory academic progress. Satisfactory progress standards for cumulative grade point average and successfully completed credits since beginning at MMA are evaluated at the end of each academic year, following the close of the spring semester. After evaluation, aid applicants will be notified if they do not meet the standards to qualify for aid in the coming year. Students who did not apply for financial aid at the time of review will be evaluated when a financial aid application is received.

## **MASSACHUSETTS MARITIME ACADEMY POLICY FOR FINANCIAL AID**

MMA adheres to the standards of undergraduate performance prescribed by the Massachusetts Board of Higher Education and endorsed by the accrediting authority of the New England Association of Schools and Colleges, Inc. In accordance with applicable federal regulations, the MMA Satisfactory Progress policy requires that students meet both qualitative and quantitative standards for maintaining satisfactory academic progress for financial aid.

### **Qualitative Measure**

Total Attempted Credit	Minimum cumulative GPA
0 – 12 credits	1.50
12.01 – 36 credits	1.80
greater than 36 credits	2.00

When calculating a student's cumulative GPA, this policy looks at ALL attempted credits at MMA. Should a student fail a class and subsequently repeat that class with a passing grade, all attempts are included in the GPA calculation. This calculation may differ from how the Academic Department (Registrar's Office) calculates a student's GPA for academic purposes.

### **Quantitative Measure (Maintenance of Effort)**

The student's entire MMA academic record is reviewed and the student must successfully complete (pass) at least 67% of all attempted credits. These credits must be credits that can be applied toward the student's degree program, and do not include courses such as Intermediate Algebra. Withdrawals, incomplete grades and failures will all have a negative affect on a student's completion rate.

Any student who does not meet these standards is not eligible for financial aid. Any aid awarded prior to the determination of unsatisfactory progress will be cancelled. Application of standards to all students and specific policies defining the effect of course incompletes, withdrawals, repetitions and non-credit remedial courses on satisfactory progress are specified in the College Catalog which is distributed to all students.

### **Regaining Eligibility**

Students have the right to appeal the determination of unsatisfactory progress, if extremely unusual circumstances contributed to the student's failure to maintain academic progress. Students must submit an official Satisfactory Academic Progress Appeal Form (which is included at the time the student is notified of his/her standing). All appeals must be submitted in writing to the Satisfactory Progress Committee, c/o Cathy Kedski, Director of Financial Aid. Appeals for the fall semester must be submitted no later than August 15th, for the spring semester, no later than January 15th. If the appeal is granted, the student must then submit a signed academic contract, outlining the student's plan to regain eligibility.

If a student's appeal is denied, the student can regain eligibility by meeting the standards above on his/her own. If this happens after the fall semester, it is up to the student to contact the Director of Financial Aid to request consideration for spring financial aid. The Financial Aid Office only looks at student progress once per year, at the end of the spring semester.

### **Repeat courses**

Federal regulations allow a student to receive financial aid for courses that are being repeated due to previously failing the course. However, if a student passes a course and wishes to retake that course to improve the grade, financial aid will only pay for one repeat of that particular course, as long as the student is meeting the standards of satisfactory academic progress, as outlined above. This will be important for students who may receive a passing grade in a course, but the grade may not be high enough to meet academic requirements for that particular course.



# Massachusetts Maritime Academy Education Records Policies and Procedures

2015-2016

## DEFINITIONS

For the Purposes of this policy, Massachusetts Maritime Academy has adopted the following definitions of terms:

Student - any person who attends or has attended Massachusetts Maritime Academy. Attendance commences on the first day of academic classes each term.

Education records - any record (in written, print, tape, film, electronic, or other medium) maintained by Massachusetts Maritime Academy or an agent of the Academy which is directly related to the student, except:

1. A personal record kept by a staff member if it is kept in the sole possession of the maker of the record and is not accessible by or revealed to any other person except a temporary substitute for the maker of the record.
2. An employment record of an individual whose employment is not contingent on the fact that he or she is a student, provided the record is used only in relation to the individual's employment.
3. Records maintained by the Massachusetts Maritime Academy's Campus Police if the record is maintained solely for law enforcement purposes and is revealed only to law enforcement agencies of the same jurisdiction.
4. Records maintained by Health Services if the records are used only for treatment of a student and made available only to those persons providing the treatment.
5. Alumni records which contain information about a student after she or he is no longer in attendance at Massachusetts Maritime Academy and which do not relate to the person as a student.

## ANNUAL NOTIFICATION

Section 99.7 of the FERPA regulations requires that the Academy annually notify students of their FERPA rights. **Students will be provided a statement of their FERPA rights in the Regimental Manual.**

## PROCEDURE TO INSPECT EDUCATIONAL RECORDS

Students may inspect and review their education records upon request to the appropriate record custodian.

Students should submit to the record custodian a written request which identifies as precisely as possible the record or records he or she wishes to inspect.

The record custodian will make necessary arrangements for access as promptly as possible and notify the student of the time and place where the records may be inspected. Access must be given within 45 days of receipt of the request.

When a record contains information about more than one student, the student may inspect and review only the records which relate to her or him.

## TYPES, LOCATIONS, AND CUSTODIANS OF EDUCATION RECORDS

The following table identifies the types of records that Massachusetts Maritime Academy maintains, their locations, and their custodians.

RECORD TYPE	LOCATION	CUSTODIAN
<b>Academic Records</b>	<b>Registrar's Office</b> Harrington Building	<b>Registrar</b> CDR Michael R. Cuff
<b>Admissions Records</b> Excluding application & Academic record	<b>Admissions Office</b> Blinn Building	<b>Dean of Enrollment Services</b> CAPT Elizabeth Stevenson
<b>Admissions Records</b> Academic & application only	<b>Registrar's Office</b> Harrington Building	<b>Registrar</b> CDR Michael R. Cuff
<b>Disciplinary Records</b>	<b>Commandant's Office</b> Dormitory Complex	<b>Commandant</b> CAPT Edward J. Rozak
<b>Financial Aid</b>	<b>Financial Aid Office</b> Blinn Building	<b>Director of Financial Aid</b> Ms. Catherine Kedski
<b>Financial Records</b>	<b>Business Office</b> Harrington Building	<b>Controller</b> Ms. Jeanne Deree
<b>Health Records</b>	<b>Sick Bay</b> Dormitory Complex – 4 <sup>th</sup> Co.	<b>Academy Physician</b> Dr. Jeffrey Cukor
<b>Naval Commissioning</b>	<b>Dept. of Naval Science</b> Kurz Hall	<b>Officer-in-Charge</b> LT Liam Hickey
<b>Occasional Records</b> not included elsewhere	As deemed likely	As appropriate
<b>Placement Records</b>	<b>Placement Office</b> Kurz Hall	<b>Placement Director</b> CDR Maryanne Richards
<b>Student Incentive Program (SIP)</b>	<b>Dept. of Naval Science</b> Kurz Hall	<b>Officer-in-Charge</b> LT Liam Hickey
<b>USCG License and STCW Documentation</b>	<b>Registrar's Office</b> Harrington Building	<b>STCW Coordinator</b> CDR Marie Huhnke

## RIGHT OF THE ACADEMY TO REFUSE ACCESS

Massachusetts Maritime Academy reserves the right to refuse to permit a student to inspect the following records:

1. The financial statement of the student's parents.
2. Letters and statements of recommendation for which the student has waived his or her rights of access or which were placed in file before 1 January 1975.
3. Records connected with an application to attend Massachusetts Maritime Academy if that application was denied.
4. Those records which are excluded from the FERPA definition of education records.

## REFUSAL TO PROVIDE COPIES

Unless required by FERPA regulations, Massachusetts Maritime Academy reserves the right to deny transcripts or copies of records in any of the following situations:

1. The student lives within a reasonable commuting distance of the Academy.
2. The student has an unpaid financial obligation to the Academy.

3. There is an unresolved disciplinary action against the student.

### **FEES FOR COPIES OF RECORDS**

The fee for copies will be \$2.50 per page not to exceed \$10 per requested record.

### **DISCLOSURE OF EDUCATION RECORDS**

Massachusetts Maritime Academy will disclose information from a student's education records only with the written consent of the student, except:

1. To school officials who have a legitimate educational interest in the records.
  - \* A person employed by the Academy in an administrative, supervisory, academic, or support staff position.
  - \* A person employed by or under contract to the Academy to perform a special task, i.e., attorneys or auditors.

A school official has a legitimate educational interest if the official is

- \* Performing a task that is specified in her or his job description or by a contract agreement.
- \* Performing a task related to the student's education.
- \* Performing a task related to the discipline of a student.

A school official is

- \* Providing a service or benefit relating to the student or student's family, such as health care, counseling, job placement or financial aid.
2. To officials of another school, upon request, in which a student seeks or intends to enroll.
  3. To certain officials of the U.S. Department of Education and state and local educational authorities, in connection with certain state or federally supported education programs.
  4. In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount, or conditions of the financial aid, or to enforce the terms and conditions of the aid.
  5. If required by any state law requiring disclosure that was adopted before 19 November 1994.
  6. To organizations conducting certain studies for or on behalf of the Academy.
  7. To accrediting organizations to carry out their functions.
  9. To comply with a judicial order or a lawfully issued subpoena. The Academy will first make a reasonable attempt to notify the student.
  10. To appropriate parties in a health or safety emergency.

### **RECORD OF REQUESTS FOR DISCLOSURE**

Custodians of records will maintain a record of all requests for and/or disclosure of information from a student's education records. The record will indicate the name of the party making the request, any additional parties to whom it may be subsequently disclosed, and the legitimate interest the party had in requesting or obtaining the information. The record may be reviewed by the parents or eligible student. The following disclosures need not be recorded:

1. To the student, to parents of dependent students, or to parties to whom the student requests disclosure.
2. To properly designated Academy officials.
3. To any party with written consent.
4. To any party seeking directory information only.

## **DIRECTORY INFORMATION**

Massachusetts Maritime Academy designates the following items as **Directory Information**: student name, address (local and permanent), telephone number (local and permanent), date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, most recent previous school attended, photograph, and licenses and certificates earned. The Academy may disclose any Directory Information without prior written consent, unless notified in writing to the contrary during the Add/Drop period of each academic term. Directory information will be released only when the petitioner demonstrates a demonstrated need for information. Commercial and fund-raising enterprises will not outweigh the student's right to privacy.

## **CORRECTION OF ACADEMIC RECORDS**

Students have the right to request corrections to records that they believe are inaccurate, misleading, or in violation of their privacy rights. The following procedure must be followed to initiate the review and/or correction of academic records:

1. A student must ask in writing that a record be amended. In doing so, the student should identify the part of the record to be changed and specify items believed to be inaccurate, misleading, or in violation of her or his privacy or other rights.
2. If the record is not amended, Massachusetts Maritime Academy will notify the student of the decision and advise him or her of the right to a hearing to challenge the information believed to be inaccurate, misleading, or in violation of the student's rights.
3. Upon request, the record custodian will arrange for a hearing and notify the student, reasonably in advance, of the date, time, and place of the hearing.
4. The hearing will be conducted by a hearing officer who is a disinterested party; however, the hearing officer may be an official of the Academy. The student will be afforded a full and fair opportunity to present evidence relevant to the issues raised in the original request to amend the student's education records. The student may be assisted by one or more individuals, including an attorney.
5. Massachusetts Maritime Academy will prepare a written decision based solely on the evidence presented at the hearing. The decision will include a summary of the evidence presented and the reasons for the decision.
6. If Massachusetts Maritime Academy decides that the information is not inaccurate, misleading, or in violation of the student's right of privacy, it will notify the student that they have a right to place in the record a statement commenting on the challenged information and/or a statement setting forth reasons for disagreeing with the decision.
7. The statement will be maintained as part of the student's education records as long as the contested portion is maintained. If Massachusetts Maritime Academy discloses the contested portion of the record, the statement must also be disclosed.
8. If Massachusetts Maritime Academy determines that the information is inaccurate, misleading, or in violation of the student's right of privacy, it will amend the record and notify the student, in writing, that the record has been amended.

## **POLICY ADMINISTRATION**

The Registrar shall maintain this document and retain copies for reference by all parties. Comment and inquiries regarding this policy should be forwarded to the Registrar. Changes, other than those mandated by law or legal interpretation, shall be incorporated only at the beginning of each fiscal year.

Inquiries may also be addressed to:

Family Policy Compliance Office  
United States Department of Education  
400 Maryland Ave., S.W.  
Washington, DC 20202-4605  
(202) 732-1807

## **Responsible Use of Information Technology**

Information technology resources provided by MMA are made available to students, faculty, staff and approved guests primarily as tools for enhancing and facilitating teaching, learning, and administrative functions. MMA encourages the use of academy resources for these primary activities. These resources include, but are not limited to, hardware (including telephones, computers, traditional media equipment and multimedia facilities and equipment) either owned or leased by the academy, software, and consulting time (and expertise) of the staff of the Information Technology Services (ITS) Department.

Massachusetts Maritime Academy reserves the right to keep primary activities operational. As a consequence, the use of technology resources provided by the academy for endeavors not directly related to enhancing and facilitating teaching, learning, and administrative functions should be considered as secondary activities. Should such secondary activities in any way interfere with primary activities, they may be terminated immediately and the offending parties may forfeit their right to access academy information technology resources.

Many of the information technology resources of the academy are shared among the entire academy community. Everyone using those resources should be considerate of the needs of others and be certain that nothing is done to impede anyone else's ability to use these resources. Such impediments may include, but are not limited to:

- activities that obstruct usage or deny access to others including extraordinary bandwidth usage,
- activities that relate to sexual, racial, and other forms of harassment,
- activities that are libelous,
- activities that violate copyright laws,
- activities that violate local, state, or federal laws,
- activities that violate UMASS ITS (service provider) acceptable use policies,
- activities that violate cadet regulations,
- unauthorized use of computer accounts,
- impersonating other individuals,
- attempts to capture or crack passwords or break encryption protocols,
- activities that compromise privacy,
- attempting to "hack" into any computer either at this academy or elsewhere,
- destruction or alteration of data or information belonging to others,
- attempting to create, for any purpose, worm or virus programs or programs that attempt to explore or exploit network, security, or other vulnerabilities,
- allowing anyone else to use any of your account(s),
- extensive use of resources for private or personal use (such as personal web pages or sites).

The use of any information technology resource of the academy implies acceptance of all current operational policies.

## **Monitoring of Computer Systems & Network Resources**

In compliance with federal law, the academy cannot guarantee privacy nor should a user have any expectation of privacy in any message, voice communication, file, image or data created, sent, retrieved or received by use of the academy's equipment and/or access. The academy reserves the right to monitor any and all aspects of its computer systems and to do so at any time, without notice, and without the user's permission.

The academy holds as core values the principles of academic freedom and free expression. In consideration of these principles, the academy will not monitor the content of electronic communications of its employees in most instances, nor will it examine the content of employee electronic communications or other employee electronic files stored on its systems except under certain circumstances. In this context, "electronic

communications" includes, but are not limited to, telephone communications, so-called "voice mail," e-mail, online chat, and computer files traversing the academy network or stored on academy equipment.

Examples of when monitoring and/or review may occur include, but are not limited to, the following circumstances:

- Communications or files targeted by orders of a court of law;
- Electronic communications or files that have been inadvertently exposed to technical staff who are operating in good faith to resolve technical problems. When technical staff inadvertently see or hear potentially illegal content in communications or files, they are required to report what they have seen or heard to appropriate authorities. Otherwise, the academy expects technical staff to treat inadvertently encountered electronic communications and files of academy employees as confidential and not subject to disclosure to anyone;
- Routine administrative functions, such as security tests of computing systems, including password testing by system administrators, and investigations of attempted access into systems by unauthorized persons;
- Routine office functions;
- An investigation into allegations of violations of law or policy;
- A reasonable or urgent need for access to academy business documents when an employee is unavailable.

*last updated 7-23-10*