



State University of New York

MARITIME COLLEGE

DEGREE CURRICULA

For Students Entering
Maritime College
During
2008-2009 Academic Year

As of 1/15/2009

LINKS TO THE MARITIME COLLEGE DEGREE CURRICULA

(left click on link to jump to desired degree curriculum)

[Bachelor of Engineering \(common first two years\)](#)

[Electrical Engineering - Engine License](#)

[Electrical Engineering - Intern Option](#)

[Facilities Engineering - Engine License](#)

[Facilities Engineering - Intern Option](#)

[Marine Electrical and Electronic Systems - Deck License](#)

[Marine Engineering - Engine License](#)

[Mechanical Engineering - Engine License](#)

[Mechanical Engineering - Intern Option](#)

[Naval Architecture - Deck License](#)

[Naval Architecture - Engine License](#)

[Naval Architecture - Intern Option](#)

[Bachelor of Science in International Transportation and Trade \(ITT\) - Intern \(common first two years\)](#)

[ITT](#)

[ITT with Minor in Business Communications](#)

[ITT with Minor in Intermodal and Maritime Security](#)

[ITT 2-year program for transfer students](#)

[Bachelor of Science in Marine Business and Commerce with Humanities Study Area Concentration - Deck License](#)

[Bachelor of Science in Marine Environmental Science \(MES\) \(common first two years\)](#)

[MES - Marine Biology Minor - Deck License](#)

[MES - Marine Biology Minor - Intern Option](#)

[MES - Meteorology & Oceanography Minor - Deck License](#)

[MES - Meteorology & Oceanography Minor - Intern Option](#)

[Bachelor of Science in Marine Operations - Deck License](#)

[Bachelor of Science in Marine Operations - Engine License](#)

[Bachelor of Science in Marine Transportation \(MT\) - Deck License \(common first two years\)](#)

[MT](#)

[MT - Ship Management Minor](#)

[Bachelor of Science in Maritime Studies - Intern Option](#)

[Associate in Applied Science in Marine Technology: Small Vessel Operations](#)

Bachelor of Engineering Engine License / Intern Option Lower Division

This page shows the first two years for all Bachelor of Engineering students taking Engine License or Intern Option

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics	3	
	<i>or</i>		
ENGR 344	Thermodynamics*		
ENGR 290	Electrical Engineering I	3	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	

* prospective Electrical Engineering majors are required to take ENGR 344

Engine License:

ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	

or

Intern Option:

HIST 101	American Civilization I	3	
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	Total Credits:	18	
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Engine License:

ENGR 520	Summer Sea Term II	5	
PE 411	Medical Care Provider	1	

or

ENGR 521	Cadet Observer	6	
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(student taking Cadet Observer still owes PE 411)

Engine License:

ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	

or

Intern Option:

HIST 102	American Civilization II	3	
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	Total Credits:	19	
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or Intern Option:

ENGR 525	Industrial Internship I	6	
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Total Lower Division Credits: 85

Bachelor of Engineering Deck License Lower Division

This page shows the first two years for all Bachelor of Engineering students taking Deck Licenses

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
ENGR 100	Engineering Graphics	1	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	19	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 102	Intro to Engineering	1	
MATH 102	Calculus II	4	
NAVG 112	Terrestrial Navigation	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
METE 201	Meteorology for Mariners	3	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics*	3	
	<i>or</i>		
ENGR 290	Electrical Engineering I*		
ENGR 344	Thermodynamics	3	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
NAVG 212	Celestial Navigation	4	
	Total Credits:	20	

* Naval Architecture Deck take ENGR 244

Marine Electrical/Electronic Systems take ENGR 290

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits: 87

Bachelor of Engineering

Electrical Engineering - Engine License

Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 290	Electrical Engineering I	3	
ENGR 344	Thermodynamics	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 520	Summer Sea Term II	5	
PE 411	Medical Care Provider	1	

or

ENGR 521	Cadet Observer	6	
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(student taking Cadet Observer still owes PE 411)

Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junior level work.

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Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to "test out" of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

**Bachelor of Engineering
Electrical Engineering - Engine License
Upper Division**

Junior Year

	Fall Semester	cr.	
ENGR 383	Network Analysis	3	
ENGR 387	Electronics I	4	
ENGR 394	Electromagnetic Fields	3	
ENGR 543	Ship Systems III	3	
HIST 101	American Civilization I	3	
	Total Credits:	16	

	Spring Semester	cr.	
ENGR 380	Electrical Engineering II	3	
ENGR 388	Electronics II	4	
ENGR 452	Controls	3	
ENGR 544	Ship Systems IV	3	
HIST 102	American Civilization II	3	
NAUT 308	Nautical Operations: Safety	2	
	Total Credits:	18	

ENGR 530	Summer Sea Term III	6	
ENGR 516	Engine License Seminar	0	

Senior Year

	Fall Semester	cr.	
CS 480	Computer Engineering I	3	
ENGR 481	Communications Theory	3	
ENGR 488	Electrical Design I	4	
PE 20x	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
CS 490	Computer Engineering II	3	
ENGR 371	Applied Naval Architecture	3	
ENGR 443	Engineering Economics	3	
ENGR 489	Electrical Design II	4	
ENGR 495	Marine Electrical Systems	3	
	Humanities/SS Elective	3	
	Total Credits:	19	

Total Credits for Degree: 161

Engr/Sci Elective: any ENGR course numbered 300, 400 or 600 or any course in computer science, oceanography or mathematics approved by the Science Department.

Bachelor of Engineering Electrical Engineering - Intern Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HIST 101	American Civilization I	3	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 290	Electrical Engineering I	3	
ENGR 344	Thermodynamics	3	
HIST 102	American Civilization II	3	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 525	Industrial Internship I	6	
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Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junior level work.

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Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to “test out” of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Electrical Engineering - Intern Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 383	Network Analysis	3	
ENGR 387	Electronics I	4	
ENGR 394	Electromagnetic Fields	3	
	Applied Engineering Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
ENGR 380	Electrical Engineering II	3	
ENGR 388	Electronics II	4	
ENGR 452	Controls	3	
	Applied Engineering Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	16	

ENGR 535	Industrial Internship II	6	
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Senior Year

	Fall Semester	cr.	
CS 480	Computer Engineering I	3	
ENGR 481	Communications Theory	3	
ENGR 488	Electrical Design I	4	
PE 20x	Lifetime Sports	1	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
CS 490	Computer Engineering II	3	
ENGR 443	Engineering Economics	3	
ENGR 489	Electrical Design II	4	
ENGR 495	Marine Electrical Systems	3	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	19	

Total Credits for Degree: 159

Applied Engineering Elective: Any ENGR course numbered 300 or above.

Engr/Sci Elective: any ENGR course numbered 300, 400 or 600 or any course in computer science, oceanography or mathematics approved by the Science Department.

Bachelor of Engineering Facilities Engineering - Engine License Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics <i>or</i>	3	
ENGR 344	Thermodynamics		
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 520	Summer Sea Term II	5	
PE 411	Medical Care Provider	1	

or

ENGR 521	Cadet Observer	6	
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(student taking Cadet Observer still owes PE 411)

Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junior level work.

SUNY Maritime College

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Degree Curricula

Class of 2012

Last Revised: 1/15/2009

Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to "test out" of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Facilities Engineering - Engine License Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 341	Fluid Mechanics	3	
ENGR 343	Engineering Analysis	3	
ENGR 344	Thermodynamics	3	
	<i>or</i>		
ENGR 244	Dynamics		
ENGR 380	Electrical Engineering II	3	
ENGR 543	Ship Systems III	3	
HIST 101	American Civilization I	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 347	Strength of Materials	3	
ENGR 351	Heat Transfer	3	
ENGR 354	Marine Engineering Design I	3	
ENGR 390	Electrical Engineering III	3	
ENGR 544	Ship Systems IV	3	
HIST 102	American Civilization II	3	
NAUT 308	Nautical Operations: Safety	2	
	Total Credits:	20	

ENGR 530	Summer Sea Term III	6	
ENGR 516	Engine License Seminar	0	

Senior Year

	Fall Semester	cr.	
ENGR 421	Plant Facilities Design I	4	
ENGR 443	Engineering Economics	3	
ENGR 453	Modern Concepts	3	
PE 20x	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 348	Strength of Materials Lab	1	
ENGR 349	Transport Processes Laboratory	1	
ENGR 371	Applied Naval Architecture	3	
ENGR 422	Plant Facilities Design II	4	
ENGR 452	Controls	3	
	Humanities/SS Elective	3	
	Total Credits:	15	

Total Credits for Degree: 161

Engr/Sci Elective: any ENGR course numbered 300, 400 or 600 or any course in computer science, oceanography or mathematics approved by the Science Department.

Bachelor of Engineering Facilities Engineering - Intern Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HIST 101	American Civilization I	3	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics	3	
	<i>or</i>		
ENGR 344	Thermodynamics		
ENGR 290	Electrical Engineering I	3	
HIST 102	American Civilization II	3	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 525	Industrial Internship I	6	
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Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junior level work.

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Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to "test out" of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Facilities Engineering - Intern Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 341	Fluid Mechanics	3	
ENGR 343	Engineering Analysis	3	
ENGR 344	Thermodynamics	3	
	<i>or</i>		
ENGR 244	Dynamics		
ENGR 380	Electrical Engineering II	3	
	Applied Engineering Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 347	Strength of Materials	3	
ENGR 351	Heat Transfer	3	
ENGR 354	Marine Engineering Design I	3	
ENGR 390	Electrical Engineering III	3	
	Applied Engineering Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	18	

ENGR 535	Industrial Internship II	6	
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Senior Year

	Fall Semester	cr.	
ENGR 421	Plant Facilities Design I	4	
ENGR 443	Engineering Economics	3	
ENGR 453	Modern Concepts	3	
PE 20x	Lifetime Sports	1	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 348	Strength of Materials Lab	1	
ENGR 349	Transport Processes Laboratory	1	
ENGR 422	Plant Facilities Design II	4	
ENGR 452	Controls	3	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	15	

Total Credits for Degree: 159

Applied Engineering Elective: Any ENGR course numbered 300 or above.

Engr/Sci Elective: any ENGR course numbered 300, 400 or 600 or any course in computer science, oceanography or mathematics approved by the Science Department.

Bachelor of Engineering

Marine Electrical and Electronic Systems - Deck License

Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
ENGR 100	Engineering Graphics	1	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	19	

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 102	Intro to Engineering	1	
MATH 102	Calculus II	4	
NAVG 112	Terrestrial Navigation	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
METE 201	Meteorology for Mariners	3	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 290	Electrical Engineering I	3	
ENGR 344	Thermodynamics	3	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
NAVG 212	Celestial Navigation	4	
	Total Credits:	20	

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits: 87

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

- Humanities:** ENGL101, ENGL102; HUMN201, HUMN202
- Mathematics:** MATH101, MATH102, MATH211, MATH212
- Science:** PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
- Engineering:** ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junior level work.

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Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to "test out" of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Marine Electrical and Electronic Systems - Deck License Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 371	Applied Naval Architecture	3	
ENGR 383	Network Analysis	3	
ENGR 387	Electronics I	4	
HIST 101	American Civilization I	3	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 388	Electronics II	4	
ENGR 443	Engineering Economics	3	
HIST 102	American Civilization II	3	
NAUT 307	Nautical Operations: Legal	2	
NAUT 308	Nautical Operations: Safety	2	
NAVG 312	Electr Nav & Voyage Planning	4	
	Total Credits:	18	

MT 530	Summer Sea Term III	5	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
CS 480	Computer Engineering I	3	
ENGR 380	Electrical Engineering II	3	
ENGR 481	Communications Theory	3	
ENGR 488	Electrical Design I	4	
MT 321	Intro to Cargo Ops & Stability	3	
	Total Credits:	16	

	Spring Semester	cr.	
CS 490	Computer Engineering II	3	
ENGR 446	Mar. Eng. Theory & Application	3	
ENGR 452	Controls	3	
ENGR 489	Electrical Design II	4	
MT 322	Marine Cargo Operations	3	
PE 20x	Lifetime Sports	1	
	Total Credits:	17	

	9th Semester	cr.	
MT 426	Maritime Communications	3	
NAUT 408	License Seminar	2	
NAUT 416	Bridge Watchstanding	3	
NAVG 402	Advanced Navigation	2	
	Humanities/SS Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	16	

Total Credits for Degree: 178

Bachelor of Engineering Marine Engineering - Engine License Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics	3	
	<i>or</i>		
ENGR 344	Thermodynamics		
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 520	Summer Sea Term II	5	
PE 411	Medical Care Provider	1	

or

ENGR 521	Cadet Observer	6	
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(student taking Cadet Observer still owes PE 411)

Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junior level work.

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Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to “test out” of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Marine Engineering - Engine License Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 341	Fluid Mechanics	3	
ENGR 344	Thermodynamics	3	
ENGR 244	<i>or</i> Dynamics		
ENGR 347	Strength of Materials	3	
ENGR 380	Electrical Engineering II	3	
ENGR 543	Ship Systems III	3	
HIST 101	American Civilization I	3	
NAUT 308	Nautical Operations: Safety	2	
	Total Credits:	20	

	Spring Semester	cr.	
ENGR 343	Engineering Analysis	3	
ENGR 348	Strength of Materials Lab	1	
ENGR 351	Heat Transfer	3	
ENGR 354	Marine Engineering Design I	3	
ENGR 390	Electrical Engineering III	3	
ENGR 544	Ship Systems IV	3	
HIST 102	American Civilization II	3	
	Total Credits:	19	

ENGR 530	Summer Sea Term III	6	
ENGR 516	Engine License Seminar	0	

Senior Year

	Fall Semester	cr.	
ENGR 371	Applied Naval Architecture	3	
ENGR 440	Marine Engineering Design II	3	
ENGR 443	Engineering Economics	3	
ENGR 452	Controls	3	
PE 20x	Lifetime Sports	1	
	Engr/Sci Elective A	3	
	Humanities/SS Elective	3	
	Total Credits:	19	

	Spring Semester	cr.	
ENGR 349	Transport Processes Laboratory	1	
ENGR 450	Marine Engineering Design III	3	
ENGR 453	Modern Concepts	3	
ENGR 495	Marine Electrical Systems	3	
	Engr/Sci Elective B	3	
	Humanities/SS Elective	3	
	Total Credits:	16	

Total Credits for Degree: 165

Courses currently offered for Engr/Sci Electives A/B sequence in senior year

Engr/Sci Elective A

CS 480	Computer Engineering I	3
ENGR 311	Kinematics	3
ENGR 387	Electronics I	4
ENGR 601	Independent Study in Engr. I	3

Engr/Sci Elective B

CS 490	Computer Engineering II	3
ENGR 312	Machine Design	3
ENGR 481	Communications Theory	3
ENGR 602	Independent Study in Engr. II	3

Bachelor of Engineering Mechanical Engineering - Engine License Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics	3	
	<i>or</i>		
ENGR 344	Thermodynamics		
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 520	Summer Sea Term II	5	
PE 411	Medical Care Provider	1	

or

ENGR 521	Cadet Observer	6	
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(student taking Cadet Observer still owes PE 411)

Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junior level work.

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Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to “test out” of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Mechanical Engineering - Engine License Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 343	Engineering Analysis	3	
ENGR 344	Thermodynamics	3	
ENGR 244	<i>or</i> Dynamics		
ENGR 347	Strength of Materials	3	
ENGR 380	Electrical Engineering II	3	
ENGR 543	Ship Systems III	3	
HIST 101	American Civilization I	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 311	Kinematics	3	
ENGR 312	Machine Design	3	
ENGR 354	Marine Engineering Design I	3	
ENGR 390	Electrical Engineering III	3	
ENGR 544	Ship Systems IV	3	
NAUT 308	Nautical Operations: Safety	2	
HIST 102	American Civilization II	3	
	Total Credits:	20	

ENGR 530	Summer Sea Term III	6	
ENGR 516	Engine License Seminar	0	

Senior Year

	Fall Semester	cr.	
ENGR 341	Fluid Mechanics	3	
ENGR 443	Engineering Economics	3	
ENGR 418	Mechanical Engineering Design I	4	
PE 20x	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 348	Strength of Materials Lab	1	
ENGR 349	Transport Processes Laboratory	1	
ENGR 351	Heat Transfer	3	
ENGR 371	Applied Naval Architecture	3	
ENGR 419	Mechanical Engineering Design II	4	
	Humanities/SS Elective	3	
	Total Credits:	15	

Total Credits for Degree: 161

Engr/Sci Elective: any ENGR course numbered 300, 400 or 600 or any course in computer science, oceanography or mathematics approved by the Science Department.

Bachelor of Engineering

Mechanical Engineering - Intern

Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HIST 101	American Civilization I	3	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics	3	
	<i>or</i>		
ENGR 344	Thermodynamics		
ENGR 290	Electrical Engineering I	3	
HIST 102	American Civilization II	3	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 525	Industrial Internship I	6	
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Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junio

Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to “test out” of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Mechanical Engineering - Intern Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 343	Engineering Analysis	3	
ENGR 344	Thermodynamics	3	
	<i>or</i>		
ENGR 244	Dynamics		
ENGR 347	Strength of Materials	3	
ENGR 380	Electrical Engineering II	3	
	Applied Engineering Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 311	Kinematics	3	
ENGR 312	Machine Design	3	
ENGR 354	Marine Engineering Design I	3	
ENGR 390	Electrical Engineering III	3	
	Applied Engineering Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	18	

ENGR 535	Industrial Internship II	6	
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Senior Year

	Fall Semester	cr.	
ENGR 341	Fluid Mechanics	3	
ENGR 443	Engineering Economics	3	
ENGR 418	Mechanical Engineering Design I	4	
PE 20x	Lifetime Sports	1	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 348	Strength of Materials Lab	1	
ENGR 349	Transport Processes Laboratory	1	
ENGR 351	Heat Transfer	3	
ENGR 419	Mechanical Engineering Design II	4	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	15	

Total Credits for Degree: 159

Applied Engineering Elective: Any ENGR course numbered 300 or above.

Engr/Sci Elective: any ENGR course numbered 300, 400 or 600 or any course in computer science, oceanography or mathematics approved by the Science Department.

**Bachelor of Engineering
Naval Architecture - Deck License
Lower Division**

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
ENGR 100	Engineering Graphics	1	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	19	

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 102	Intro to Engineering	1	
MATH 102	Calculus II	4	
NAVG 112	Terrestrial Navigation	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
METE 201	Meteorology for Mariners	3	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics	3	
ENGR 344	Thermodynamics	3	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
NAVG 212	Celestial Navigation	4	
	Total Credits:	20	

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits: 87

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

- Humanities:** ENGL101, ENGL102; HUMN201, HUMN202
- Mathematics:** MATH101, MATH102, MATH211, MATH212
- Science:** PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
- Engineering:** ENGR242, ENGR244*, ENGR290*

*Specific courses may be excluded from subset GPA calculation if the student's engineering program does not require the courses for junio

Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to “test out” of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Naval Architecture - Deck License Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 341	Fluid Mechanics	3	
ENGR 347	Strength of Materials	3	
ENGR 363	Ship Statics	3	
ENGR 365	Ship Form and Graphics	3	
HIST 101	American Civilization I	3	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
	Total Credits:	20	

	Spring Semester	cr.	
ENGR 366	Ship Structure	3	
ENGR 368	Ship Design I	3	
ENGR 443	Engineering Economics	3	
HIST 102	American Civilization II	3	
NAUT 307	Nautical Operations: Legal	2	
NAUT 308	Nautical Operations: Safety	2	
NAVG 312	Electr Nav & Voyage Planning	4	
	Total Credits:	20	

MT 530	Summer Sea Term III	5	
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PE 411	Medical Care Provider	1	
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Senior Year

	Fall Semester	cr.	
ENGR 290	Electrical Engineering I	3	
ENGR 343	Engineering Analysis	3	
ENGR 348	Strength of Materials Lab	1	
ENGR 461	Ship Design II	4	
ENGR 462	Ship Resistance and Propulsion	3	
MT 321	Intro to Cargo Ops & Stability	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 471	Ship Design III	4	
ENGR 354	Marine Engineering Design I	3	
ENGR 473	Ship Dynamics	3	
MT 322	Marine Cargo Operations	3	
PE 20x	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Total Credits:	17	

	9th Semester	cr.	
MT 426	Maritime Communications	3	
NAUT 408	License Seminar	2	
NAUT 416	Bridge Watchstanding	3	
NAVG 402	Advanced Navigation	2	
	Humanities/SS Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	16	

Total Credits for Degree: 183

Engr/Sci Elective: any ENGR course numbered 300, 400 or 600 or any course in computer science, SUNY Maritime College Geography or mathematics approved by the Science Department.

Degree Curricula
Class of 2012

Last Revised: 1/15/2009

Bachelor of Engineering Naval Architecture - Engine License Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics	3	
	<i>or</i>		
ENGR 344	Thermodynamics		
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 520	Summer Sea Term II	5	
PE 411	Medical Care Provider	1	

or

ENGR 521	Cadet Observer	6	
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(student taking Cadet Observer still owes PE 411)

Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

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Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to "test out" of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

**Bachelor of Engineering
Naval Architecture - Engine License
Upper Division**

Junior Year

	Fall Semester	cr.	
ENGR 344	Thermodynamics	3	
	<i>or</i>		
ENGR 244	Dynamics		
ENGR 347	Strength of Materials	3	
ENGR 363	Ship Statics	3	
ENGR 365	Ship Form and Graphics	3	
ENGR 380	Electrical Engineering II	3	
ENGR 543	Ship Systems III	3	
HIST 101	American Civilization I	3	
	Total Credits:	21	

	Spring Semester	cr.	
ENGR 341	Fluid Mechanics	3	
ENGR 366	Ship Structure	3	
ENGR 368	Ship Design I	3	
ENGR 443	Engineering Economics	3	
ENGR 544	Ship Systems IV	3	
HIST 102	American Civilization II	3	
NAUT 308	Nautical Operations: Safety	2	
	Total Credits:	20	

ENGR 530	Summer Sea Term III	6	
ENGR 516	Engine License Seminar	0	

Senior Year

	Fall Semester	cr.	
ENGR 343	Engineering Analysis	3	
ENGR 348	Strength of Materials Lab	1	
ENGR 461	Ship Design II	4	
ENGR 462	Ship Resistance and Propulsion	3	
PE 20x	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 354	Marine Engineering Design I	3	
ENGR 390	Electrical Engineering III	3	
ENGR 471	Ship Design III	4	
ENGR 473	Ship Dynamics	3	
	Humanities/SS Elective	3	
	Total Credits:	16	

Total Credits for Degree: 166

Engr/Sci Elective: any ENGR course numbered 300, 400 or 600 or any course in computer science, oceanography or mathematics approved by the Science Department.

Bachelor of Engineering Naval Architecture - Intern Lower Division

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 101	Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
ENGR 540	Intro to Ship Systems	3	
MATH 102	Calculus II	4	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 102	Engineering Physics I	4	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HIST 101	American Civilization I	3	
HUMN 201	Humanities I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 244	Dynamics	3	
	<i>or</i>		
ENGR 344	Thermodynamics		
ENGR 290	Electrical Engineering I	3	
HIST 102	American Civilization II	3	
HUMN 202	Humanities II	3	
MATH 212	Differential Equations	4	
	Total Credits:	19	

ENGR 525	Industrial Internship I	6	
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Total Lower Division Credits: 85

Engineering Department Lower Division Competency Requirement

B.E. Engineering students must satisfy a lower division competency requirement. Students must achieve a minimum mastery level in defined subject areas prior to achieving the status of matriculated upper division student. The required standard is a 2.0 GPA in each of the following lower division subsets.

Humanities: ENGL101, ENGL102; HUMN201, HUMN202
Mathematics: MATH101, MATH102, MATH211, MATH212
Science: PHYS102, PHYS201, PHYS202, CHEM121, CHEM122, CHEM212
Engineering: ENGR242, ENGR244*, ENGR290*

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Engineering Department Lower Division Competency Requirement

(Continued)

Students who do not achieve the minimum subset GPA should expect to be required to remediate in subset area(s) prior to becoming eligible for removal from remediation status. Students in remediation status must have a corrective program developed in conjunction with their faculty advisor and approved by the respective area Chair and the Engineering Department Chair. Students who at any time have a subset average between 1.7 and 2.0 may be given a subset warning and; should expect to be required to repeat one or more subset courses as part of the remediation process. Students with subset averages below 1.7 will be required to repeat one or more subset courses as part of the remediation process. At the discretion of the Engineering Department chair students may be allowed to “test out” of remediation status. Students in remediation status will not be allowed to register for upper division courses in their major. Additional registration restrictions will be imposed on students on academic probation or restricted registration status.

Bachelor of Engineering Naval Architecture - Intern Upper Division

Junior Year

	Fall Semester	cr.	
ENGR 347	Strength of Materials	3	
ENGR 363	Ship Statics	3	
ENGR 365	Ship Form and Graphics	3	
ENGR 380	Electrical Engineering II	3	
ENGR 551	Designated Duty Engineer I	4	
	Humanities/SS Elective	3	
	Total Credits:	19	

	Spring Semester	cr.	
ENGR 341	Fluid Mechanics	3	
ENGR 344	Thermodynamics	3	
	<i>or</i>		
ENGR 244	Dynamics		
ENGR 366	Ship Structure	3	
ENGR 368	Ship Design I	3	
ENGR 443	Engineering Economics	3	
ENGR 552	Designated Duty Engineer II	4	
	Total Credits:	19	

ENGR 535	Industrial Internship II	6	
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Senior Year

	Fall Semester	cr.	
ENGR 343	Engineering Analysis	3	
ENGR 348	Strength of Materials Lab	1	
ENGR 461	Ship Design II	4	
ENGR 462	Ship Resistance and Propulsion	3	
ENGR 472	Sail Boat Principles & Design	3	
PE 20x	Lifetime Sports	1	
	Applied Engineering Elective	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 354	Marine Engineering Design I	3	
ENGR 471	Ship Design III	4	
ENGR 473	Ship Dynamics	3	
ENGR 476	Power Boat Principles & Design	3	
	Applied Engineering Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	19	

Total Credits for Degree: 166

Applied Engineering Elective Any ENGR course numbered 300 or above.

Bachelor of Science International Transportation and Trade - Intern Lower Division

This page shows the first two years for all students majoring in International Transportation and Trade

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
GBUS 100	Intro to Business & Economics	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 90	Intro. to College Mathematics	4	
	<i>or</i>		
MATH 111	Applied Calculus I		
NVSC 103	Basic Naval Science*	1	
PS 111	Professional Studies	2	
	Total Credits:	17	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBEC 121	Macroeconomics	3	
HIST 101	American Civilization I	3	
	Laboratory Science Elective	4	
	Liberal Arts & Sciences Elective	3	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBAC 311	Financial Accounting	3	
HIST 102	American Civilization II	3	
HUMN 201	Humanities I	3	
PE 101	Lifetime Fitness & Conditioning	1	
	Liberal Arts & Sciences Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBAC 315	Managerial Accounting	3	
GBEC 122	Microeconomics	3	
HUMN 202	Humanities II	3	
HUMN 4xx	General Education -The Arts	3	
MATH 251	Statistics	3	
PE 20x	Lifetime Sports	1	
	Total Credits:	16	

Total Lower Division Credits: 65

Lower Division Competency Requirement

ITT students must satisfy a lower division competency requirement in order to register for upper division major courses. Competency is defined as having achieved a GPA of 2.5 in each of two groups of courses:

**ENGL 101, MATH 90 or 111, MATH 251;
GBUS 100, GBEC 121, GBEC 122, GBAC 311, BGAC 315.**

Bachelor of Science International Transportation and Trade - Intern Lower Division

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
GBUS 100	Intro to Business & Economics	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 90	Intro. to College Mathematics	4	
	<i>or</i>		
MATH 111	Applied Calculus I		
NVSC 103	Basic Naval Science*	1	
PS 111	Professional Studies	2	
	Total Credits:	17	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBEC 121	Macroeconomics	3	
HIST 101	American Civilization I	3	
	Laboratory Science Elective	4	
	Liberal Arts & Sciences Elective	3	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBAC 311	Financial Accounting	3	
HIST 102	American Civilization II	3	
HUMN 201	Humanities I	3	
PE 101	Lifetime Fitness & Conditioning	1	
	Liberal Arts & Sciences Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBAC 315	Managerial Accounting	3	
GBEC 122	Microeconomics	3	
HUMN 202	Humanities II	3	
HUMN 4xx	General Education -The Arts	3	
MATH 251	Statistics	3	
PE 20x	Lifetime Sports	1	
	Total Credits:	16	

Total Lower Division Credits: 65

Lower Division Competency Requirement

ITT students must satisfy a lower division competency requirement in order to register for upper division major courses. Competency is defined as having achieved a GPA of 2.5 in each of two groups of courses:

**ENGL 101, MATH 90 or 111, MATH 251;
GBUS 100, GBEC 121, GBEC 122, GBAC 311, BGAC 315.**

**Bachelor of Science
International Transportation and Trade - Intern
Upper Division**

Junior Year

	Fall Semester	cr.	
GBLW 431	Business Law	3	
GBMG 341	Organizational Management	3	
GBTT 251	Transportation Systems	3	
GBTT 451	Marine Insurance	3	
	International Studies Elective	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 424	Intl. Economics and Finance	3	
GBEC 427	Financial Management	3	
GBMG 345	Fundamentals of Marketing	3	
GBTT 252	Business of Shipping	3	
	GBAT Elective	3	
	Total Credits:	15	

GBUS 525	ITT Internship / Work Exp.	6	
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Senior Year

	Fall Semester	cr.	
GBEC 428	Economic Geography	3	
GBLW 433	Admiralty Law	3	
GBTT 453	Import/Export & Traffic Mgt.	3	
GBTT 457	Port and Terminal Operations	3	
	International Studies Elective	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 429	Seminar: Transport. Economics <i>or</i>	3	
GBMG 440	Seminar: Strategy and Policy		
GBMG 446	Operations Research	3	
GBTT 351	International Logistics	3	
GBUS 300	International Business	3	
PE 100	Swimming and Water Safety	1	
	GBAT Elective	3	
	Total Credits:	16	

Total Upper Division Credits: 67

Total Credits for Degree: 132

Electives

	GBAT Electives	cr.
GBLW 435	Environmental Law & Policy	3
GBLW 437	International Law	3
GBMG 442	International Marketing Mgt.	3
GBMG 443	Cross-Cultural Management	3
GBTT 455	Advanced Transportation Mgt.	3

	International Studies Electives	cr.
ENGL 416	Literature of the Sea	3
HIST 416	U.S. Maritime Hist. to Civil War	3
HIST 417	U.S. Maritime Hist. since 1865	3
HIST 418	Hist. of American Foreign Policy	3
HIST 440	Hist. of American Enterprise I	3
HIST 441	Hist. of American Enterprise II	3
SS 400	Fund. of International Relations	3

**Bachelor of Science
International Transportation and Trade - Intern
Minor in Business Communications
Lower Division**

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
GBUS 100	Intro to Business & Economics	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 90	Intro. to College Mathematics	4	
	<i>or</i>		
MATH 111	Applied Calculus I		
NVSC 103	Basic Naval Science*	1	
PS 111	Professional Studies	2	
	Total Credits:	17	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBEC 121	Macroeconomics	3	
HIST 101	American Civilization I	3	
	Laboratory Science Elective	4	
	Liberal Arts & Sciences Elective	3	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBAC 311	Financial Accounting	3	
HIST 102	American Civilization II	3	
HUMN 201	Humanities I	3	
PE 101	Lifetime Fitness & Conditioning	1	
	Liberal Arts & Sciences Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBAC 315	Managerial Accounting	3	
GBEC 122	Microeconomics	3	
HUMN 202	Humanities II	3	
HUMN 4xx	General Education -The Arts	3	
MATH 251	Statistics	3	
PE 20x	Lifetime Sports	1	
	Total Credits:	16	

Total Lower Division Credits: 65

Lower Division Competency Requirement

ITT students must satisfy a lower division competency requirement in order to register for upper division major courses. Competency is defined as having achieved a GPA of 2.5 in each of two groups of courses:

**ENGL 101, MATH 90 or 111, MATH 251;
GBUS 100, GBEC 121, GBEC 122, GBAC 311, BGAC 315.**

**Bachelor of Science
International Transportation and Trade - Intern
Minor in Business Communications
Upper Division**

Junior Year

	Fall Semester	cr.	
GBLW 431	Business Law	3	
GBMG 341	Organizational Management	3	
GBMG 348	<i>Business Ethics</i>	3	
GBTT 251	Transportation Systems	3	
GBTT 451	Marine Insurance	3	
	Total Credits:	15	

	Spring Semester	cr.	
ENGL 450	<i>Speech</i>	3	
GBEC 424	Intl. Economics and Finance	3	
GBEC 427	Financial Management	3	
GBMG 345	Fundamentals of Marketing	3	
GBTT 252	Business of Shipping	3	
	Total Credits:	15	

GBUS 525	ITT Internship / Work Exp.	6	
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Senior Year

	Fall Semester	cr.	
ENGL 456	<i>Advanced Technical Writing</i>	3	
GBEC 428	Economic Geography*	3	
GBLW 433	Admiralty Law*	3	
GBTT 453	Import/Export & Traffic Mgt.*	3	
GBTT 457	Port and Terminal Operations*	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 429	Seminar: Transport. Economics <i>or</i>	3	
GBMG 440	Seminar: Strategy and Policy		
GBMG 446	Operations Research	3	
GBTT 351	International Logistics*	3	
GBUS 300	International Business*	3	
PE 100	Swimming and Water Safety	1	
	<i>Business Commun. Elective</i>	3	
	Total Credits:	16	

* Students will meet with advisor to replace one of these courses by

	Business Commun. Elective	3	
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Total Upper Division Credits: 67

Total Credits for Degree: 132

Business Communications Electives (choose two)

ENGL 454	Journalism	3
GBLW 437	International Law	3
GBMG 347	Entr. in Intern. Transp. & Trade	3
HIST 425	History of Technology	3
HIST 440	History of Amer. Enterprise I	3
HIST 441	History of Amer. Enterprise II	3
HUMN 402	Images of Men, Women, Mach.	3

**Bachelor of Science
International Transportation and Trade - Intern
Minor in Intermodal and Maritime Security
Lower Division**

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
GBUS 100	Intro to Business & Economics	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 90	Intro. to College Mathematics	4	
	<i>or</i>		
MATH 111	Applied Calculus I		
NVSC 103	Basic Naval Science*	1	
PS 111	Professional Studies	2	
	Total Credits:	17	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBEC 121	Macroeconomics	3	
HIST 101	American Civilization I	3	
	Laboratory Science Elective	4	
	Liberal Arts & Sciences Elective	3	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBAC 311	Financial Accounting	3	
HIST 102	American Civilization II	3	
HUMN 201	Humanities I	3	
PE 101	Lifetime Fitness & Conditioning	1	
	Liberal Arts & Sciences Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBAC 315	Managerial Accounting	3	
GBEC 122	Microeconomics	3	
HUMN 202	Humanities II	3	
HUMN 4xx	General Education -The Arts	3	
MATH 251	Statistics	3	
PE 20x	Lifetime Sports	1	
	Total Credits:	16	

Total Lower Division Credits: 65

Lower Division Competency Requirement

ITT students must satisfy a lower division competency requirement in order to register for upper division major courses. Competency is defined as having achieved a GPA of 2.5 in each of two groups of courses:

**ENGL 101, MATH 90 or 111, MATH 251;
GBUS 100, GBEC 121, GBEC 122, GBAC 311, BGAC 315.**

**Bachelor of Science
International Transportation and Trade - Intern
Minor in Intermodal and Maritime Security
Upper Division**

Junior Year

	Fall Semester	cr.	
GBLW 431	Business Law	3	
GBMG 341	Organizational Management	3	
GBTT 251	Transportation Systems	3	
GBTT 451	Marine Insurance	3	
MT 435	<i>Maritime Security</i>	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 424	Intl. Economics and Finance	3	
GBEC 427	Financial Management	3	
GBMG 345	Fundamentals of Marketing	3	
GBTT 252	Business of Shipping	3	
GBTT 460	<i>Global Supply Chain Security</i>	3	
	Total Credits:	15	

GBUS 525	ITT Internship / Work Exp.	6	
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Senior Year

	Fall Semester	cr.	
GBEC 428	Economic Geography*	3	
GBLW 433	Admiralty Law*	3	
GBTT 453	Import/Export & Traffic Mgt.*	3	
GBTT 457	Port and Terminal Operations*	3	
GBTT 462	<i>Sci & Tech Issues of Security</i>	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 429	Seminar: Transport. Economics <i>or</i>	3	
GBMG 440	Seminar: Strategy and Policy		
GBMG 446	Operations Research	3	
GBTT 351	International Logistics*	3	
GBUS 300	International Business*	3	
MT 430	<i>Emergency Mgt. Systems</i>	3	
PE 100	Swimming and Water Safety	1	
	Total Credits:	16	

* Students will meet with advisor to replace one of these courses by

GBTT 465	<i>Contemporary Security Issues</i>	3	
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Total Upper Division Credits: 67

Total Credits for Degree: 132

Requirements for the Minor:

- (i) For acceptance in the Minor, generally students must be of senior standing and have a GPA of 3.0 or greater.
- (ii) The student's cumulative GPA for the five Minor courses must be 3.0 for the Minor to be transcribed on the record. The courses constituting the Minor are listed above *in italics*.

Bachelor of Science
International Transportation and Trade - Intern
2-Year Program
Lower Division Transfer Requirements

Maritime College's B.S. in International Transportation and Trade (ITT) welcomes well-qualified transfer students. In order to complete the upper division work in two years of full-time study, a student must take the appropriate courses during his/her first two years. While students who do not fulfill all the lower division transfer requirements will still be considered for admission into the ITT program, it may not be possible to complete the work in the two-year time frame. An overall GPA of 2.5 is required to transfer into the ITT program.

Students should take courses that correspond as closely as possible to the following list.

Note: The SUNY General Education category is listed in parentheses, where applicable.

	cr.
ENGL 101, Freshman English I - Composition (Gen Ed: Basic Communications)	3
ENGL 102, Freshman English II - Literature	3
HUMN 201/202, Humanities I & II (Gen Ed: Western and Other Civilizations)	6
ENGL 452, Technical Writing	3
MATH 90, Intro to College Math or MATH 111, Applied Calculus	4
MATH 251, Statistics	3
HIST 101/102, American Civilization I&II (Gen Ed: American History)	6
CS 100/101, Introduction to Business Computing & Computer Laboratory	3
Laboratory Science (Gen Ed: Science)	4
HUMN 400+, The Arts (Gen Ed: The Arts)	3
GBUS 100, Introduction to Business & Economics	3
GBEC 121, Macroeconomics (Gen Ed: Social Sciences)	3
GBEC 122, Microeconomics	3
GBAC 311, Financial Accounting	3
GBAC 315, Managerial Accounting	3
Liberal Arts and Sciences	9
Total Lower Division Transfer Credits:	62

Total Upper Division Program (found on previous pages) Credits: 67

Total Credits for Degree: 129

Lower Division Competency Requirement

ITT students must satisfy a lower division competency requirement in order to register for upper division major courses. Competency is defined as having achieved a GPA of 2.5 in each of two groups of courses:

ENGL 101, MATH 90 or 111, MATH 251;
GBUS 100, GBEC 121, GBEC 122, GBAC 311, BGAC 315.

**Bachelor of Science
Marine Business and Commerce - Deck License
Humanities Study Area Concentration
Lower Division**

The first two years of this curriculum are identical to those of the Marine Transportation curriculum.

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calculus I	4	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBUS 100	Intro to Business & Economics	3	
MATH 112	Applied Calculus II	3	
NAVG 112	Terrestrial Navigation	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
	Total Credits:	15	

*NVSC 101 in Fall semester for NROTC/MMR candidates

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBTT 251	Transportation Systems	3	
HUMN 201	Humanities I	3	
METE 201	Meteorology for Mariners	3	
MT 250	Ship Construction & Stability	2	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	17.5	

	Spring Semester	cr.	
GBAC 311	Financial Accounting	3	
GBEC 122	Microeconomics	3	
GBTT 252	Business of Shipping	3	
HUMN 202	Humanities II	3	
MATH 251	Statistics	3	
NAVG 212	Celestial Navigation	4	
	Total Credits:	19	

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits: 79.5

**Bachelor of Science
Marine Business and Commerce - Deck License
Humanities Minor
Upper Division**

Each semester below includes a group of Humanities Minor Electives.
These courses are to be chosen in consultation with student's advisor.

Junior Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
HIST 101	American Civilization I	3	
MT 321	Intro to Cargo Ops & Stability	3	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
PE 20x	Lifetime Sports	1	
	Humanities Minor Elective	3	
	Humanities Minor Elective	3	
	Total Credits:	21	

	Spring Semester	cr.	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
NAUT 307	Nautical Operations: Legal	2	
NAUT 308	Nautical Operations: Safety	2	
NAVG 312	Electr Nav & Voyage Planning	4	
	Humanities Minor Elective	3	
	Humanities Minor Elective	3	
	Total Credits:	20	

MT 530	Summer Sea Term III	5	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
GBLW 431	Business Law	3	
NAUT 408	License Seminar	2	
NAVG 402	Advanced Marine Navigation	2	
	Humanities Minor Elective	3	
	Humanities Minor Elective	3	
	Humanities Minor Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBEC 427	Financial Management	3	
MT 426	Maritime Communications	3	
NAUT 416	Bridge Watchstanding	3	
	Humanities Minor Elective	3	
	Humanities Minor Elective	3	
	Humanities Minor Elective	3	
	Total Credits:	18	

Total Credits for Degree: 160.5

Bachelor of Science Marine Environmental Science Lower Division

This page shows the first two years for all students majoring in Marine Environmental Science

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
NVSC 103	Basic Naval Science*	1	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CHEM 123	General Chemistry II	3	
CHEM 124	General Chemistry II Laboratory	1	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
PE 100	Swimming and Water Safety	1	
	Total Credits:	14	

Deck License Only:

NAVG 112	Terrestrial Navigation	4	
	Total Credits:	18	

Deck License Only:

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	Humanities I	3	
MATH 251	Statistics	3	
METE 201	Meteorology for Mariners	3	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	16.5	

	Spring Semester	cr.	
BIO 210	Ecology	3	
CHEM 221	Organic Chemistry	3	
CHEM 222	Organic Chemistry Laboratory	1	
HUMN 202	Humanities II	3	
PE 20x	Lifetime Sports	1	
PHYS 214	General Physics II	4	
PHYS 216	General Physics II Lab	0.5	
	Total Credits:	15.5	

Deck License Only:

MT 250	Ship Construction & Stability	2	
	Total Credits:	18.5	

Deck License Only:

NAVG 212	Celestial Navigation	4	
	Total Credits:	19.5	

Deck License Only:

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits

without license courses: **64**

with license courses: **86**

**Bachelor of Science
Marine Environmental Science - Deck License
Marine Biology Minor
Lower Division**

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
NVSC 103	Basic Naval Science*	1	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CHEM 123	General Chemistry II	3	
CHEM 124	General Chemistry II Laboratory	1	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
NAVG 112	Terrestrial Navigation	4	
PE 100	Swimming and Water Safety	1	
	Total Credits:	18	

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	Humanities I	3	
MATH 251	Statistics	3	
METE 201	Meteorology for Mariners	3	
MT 250	Ship Construction & Stability	2	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	18.5	

	Spring Semester	cr.	
BIO 210	Ecology	3	
CHEM 221	Organic Chemistry	3	
CHEM 222	Organic Chemistry Laboratory	1	
HUMN 202	Humanities II	3	
NAVG 212	Celestial Navigation	4	
PE 20x	Lifetime Sports	1	
PHYS 214	General Physics II	4	
PHYS 216	General Physics II Lab	0.5	
	Total Credits:	19.5	

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits 86

**Bachelor of Science
Marine Environmental Science - Deck License
Marine Biology Minor
Upper Division**

Junior Year

	Fall Semester	cr.	
BIO 315	Marine Biology	3	
CHEM 220	Environmental Chemistry	3	
HIST 101	American Civilization I	3	
MT 321	Intro to Cargo Ops & Stability	3	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
OCEA 303	General Oceanography	4	
	Total Credits:	21	

	Spring Semester	cr.	
BIO 320	Invertebrate Zoology	4	
ES 304	Remote Sensing	2	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
NAUT 307	Nautical Operations: Legal	2	
NAUT 308	Nautical Operations: Safety	2	
NAVG 312	Electr Nav & Voyage Planning	4	
	Total Credits:	20	

MT 530	Summer Sea Term III	5	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
BIO 415	Ichthyology	3	
ES 420	Environmental Pollution	3	
GEOL 301	General Geology	3	
MT 426	Maritime Communications	3	
NAUT 408	License Seminar	2	
NAVG 402	Advanced Marine Navigation	2	
	Humanities/SS Elective	3	
	Total Credits:	19	

	Spring Semester	cr.	
BIO 416	Fisheries Science	3	
GBLW 435	Environmental Law & Policy	3	
NAUT 416	Bridge Watchstanding	3	
OCEA 415	Marine Biogeochemistry	3	
OCEA 416	Marine Biogeochemistry Lab	1	
	Humanities/SS Elective	3	
	MES Elective	3	
	Total Credits:	19	

Total Credits for Degree: 171

MES Electives

Marine Biology Minor cr.

ES 410	Marine Microbiology	3
ES 430	Environmntl. Impact Assessment	3
	Alternatively, any course with the prefix BIO, ES, METE or OCEA	3

**Bachelor of Science
Marine Environmental Science - Intern
Marine Biology Minor
Lower Division**

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
NVSC 103	Basic Naval Science*	1	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 123	General Chemistry II	3	
CHEM 124	General Chemistry II Laboratory	1	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
PE 100	Swimming and Water Safety	1	
	Total Credits:	14	

*NVSC 101 for NROTC/MMR candidates

Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	Humanities I	3	
MATH 251	Statistics	3	
METE 201	Meteorology for Mariners	3	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	16.5	

	Spring Semester	cr.	
BIO 210	Ecology	3	
CHEM 221	Organic Chemistry	3	
CHEM 222	Organic Chemistry Laboratory	1	
HUMN 202	Humanities II	3	
PE 20x	Lifetime Sports	1	
PHYS 214	General Physics II	4	
PHYS 216	General Physics II Lab	0.5	
	Total Credits:	15.5	

Total Lower Division Credits 64

**Bachelor of Science
Marine Environmental Science - Intern
Marine Biology Minor
Upper Division**

Junior Year

	Fall Semester	cr.	
BIO 315	Marine Biology	3	
CHEM 220	Environmental Chemistry	3	
HIST 101	American Civilization I	3	
OCEA 303	General Oceanography	4	
PE 411	Medical Care Provider	1	
	Total Credits:	14	

	Spring Semester	cr.	
BIO 320	Invertebrate Zoology	4	
ES 304	Remote Sensing	2	
HIST 102	American Civilization II	3	
	Free Elective	3	
	MES elective	3	
	Science/Mathematics Elective	3	
	Total Credits:	18	

ES 505	Environmental Sci. Internship I	3	
ES 515	Environmental Sci. Internship II	3	

Senior Year

	Fall Semester	cr.	
BIO 415	Ichthyology	3	
ES 420	Environmental Pollution	3	
GEOL 301	General Geology	3	
	Free Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	15	

	Spring Semester	cr.	
BIO 416	Fisheries Science	3	
GBLW 435	Environmental Law & Policy	3	
OCEA 415	Marine Biogeochemistry	3	
OCEA 416	Marine Biogeochemistry Lab	1	
	Humanities/SS Elective	3	
	MES Elective	3	
	Total Credits:	16	

Total Credits for Degree: 133

MES Electives

Marine Biology Minor cr.

ES 410	Marine Microbiology	3
ES 430	Environmntl. Impact Assessment	3
	Alternatively, any course with the prefix BIO, ES, METE or OCEA	3

**Bachelor of Science
Marine Environmental Science - Deck License
Meteorology and Oceanography Minor
Lower Division**

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
NVSC 103	Basic Naval Science*	1	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CHEM 123	General Chemistry II	3	
CHEM 124	General Chemistry II Laboratory	1	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
NAVG 112	Terrestrial Navigation	4	
PE 100	Swimming and Water Safety	1	
	Total Credits:	18	

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	Humanities I	3	
MATH 251	Statistics	3	
METE 201	Meteorology for Mariners	3	
MT 250	Ship Construction & Stability	2	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	18.5	

	Spring Semester	cr.	
BIO 210	Ecology	3	
CHEM 221	Organic Chemistry	3	
CHEM 222	Organic Chemistry Laboratory	1	
HUMN 202	Humanities II	3	
NAVG 212	Celestial Navigation	4	
PE 20x	Lifetime Sports	1	
PHYS 214	General Physics II	4	
PHYS 216	General Physics II Lab	0.5	
	Total Credits:	19.5	

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits 86

Bachelor of Science
Marine Environmental Science - Deck License
Meteorology and Oceanography Minor
Upper Division

Junior Year

	Fall Semester	cr.	
BIO 315	Marine Biology	3	
CHEM 220	Environmental Chemistry	3	
HIST 101	American Civilization I	3	
MT 321	Intro to Cargo Ops & Stability	3	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
OCEA 303	General Oceanography	4	
	Total Credits:	21	

	Spring Semester	cr.	
ES 304	Remote Sensing	2	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
NAUT 307	Nautical Operations: Legal	2	
NAUT 308	Nautical Operations: Safety	2	
NAVG 312	Electr Nav & Voyage Planning	4	
OCEA 308	Dynamic Oceanography	3	
	Total Credits:	19	

MT 530	Summer Sea Term III	5	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
ES 420	Environmental Pollution	3	
GEOL 301	General Geology	3	
METE 350	Synoptic Meteorology	4	
MT 426	Maritime Communications	3	
NAUT 408	License Seminar	2	
NAVG 402	Advanced Marine Navigation	2	
	Humanities/SS Elective	3	
	Total Credits:	20	

	Spring Semester	cr.	
GBLW 435	Environmental Law & Policy	3	
METE 408	Dynamic Meteorology	3	
NAUT 416	Bridge Watchstanding	3	
OCEA 415	Marine Biogeochemistry	3	
OCEA 416	Marine Biogeochemistry Lab	1	
	Humanities/SS Elective	3	
	MES Elective	3	
	Total Credits:	19	

Total Credits for Degree: 171

MES Electives

Mete. & Ocea. Minor cr.

METE 402	Tropical Cyclones	3
METE 411	Marine Climatology	3
METE 422	Weather Forecasting	3
OCEA 402	Estuaries & Coastal Processes	3
OCEA 414	Marine Geology	3
	Alternatively, any course with the prefix BIO, ES, METE or OCEA	3

**Bachelor of Science
Marine Environmental Science - Intern
Meteorology and Oceanography Minor
Lower Division**

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
NVSC 103	Basic Naval Science*	1	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 123	General Chemistry II	3	
CHEM 124	General Chemistry II Laboratory	1	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
PE 100	Swimming and Water Safety	1	
	Total Credits:	14	

*NVSC 101 for NROTC/MMR candidates

Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	Humanities I	3	
MATH 251	Statistics	3	
METE 201	Meteorology for Mariners	3	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	16.5	

	Spring Semester	cr.	
BIO 210	Ecology	3	
CHEM 221	Organic Chemistry	3	
CHEM 222	Organic Chemistry Laboratory	1	
HUMN 202	Humanities II	3	
PE 20x	Lifetime Sports	1	
PHYS 214	General Physics II	4	
PHYS 216	General Physics II Lab	0.5	
	Total Credits:	15.5	

Total Lower Division Credits 64

**Bachelor of Science
Marine Environmental Science - Intern
Meteorology and Oceanography Minor
Upper Division**

Junior Year

	Fall Semester	cr.	
BIO 315	Marine Biology	3	
CHEM 220	Environmental Chemistry	3	
HIST 101	American Civilization I	3	
OCEA 303	General Oceanography	4	
PE 411	Medical Care Provider	1	
	Total Credits:	14	

	Spring Semester	cr.	
ES 304	Remote Sensing	2	
HIST 102	American Civilization II	3	
OCEA 308	Dynamic Oceanography	3	
	Free Elective	3	
	MES Elective	3	
	Science/Mathematics Elective	3	
	Total Credits:	17	

ES 505	Environmental Sci. Internship I	3	
ES 515	Environmental Sci. Internship II	3	

Senior Year

	Fall Semester	cr.	
ES 420	Environmental Pollution	3	
GEOL 301	General Geology	3	
METE 350	Synoptic Meteorology	4	
	Free Elective	3	
	Humanities/SS Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBLW 435	Environmental Law & Policy	3	
METE 408	Dynamic Meteorology	3	
OCEA 415	Marine Biogeochemistry	3	
OCEA 416	Marine Biogeochemistry Lab	1	
	Humanities/SS Elective	3	
	MES Elective	3	
	Total Credits:	16	

Total Credits for Degree: 133

MES Electives

	Mete. & Ocea. Minor	cr.
METE 402	Tropical Cyclones	3
METE 411	Marine Climatology	3
METE 422	Weather Forecasting	3
OCEA 402	Estuaries & Coastal Processes	3
OCEA 414	Marine Geology	3
	Alternatively, any course with the prefix BIO, ES, METE or OCEA	3

**Bachelor of Science
Marine Operations- Deck License
Lower Division**

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calculus I	4	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBUS 100	Intro to Business & Economics	3	
MATH 112	Applied Calculus II	3	
NAVG 112	Terrestrial Navigation	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
	Total Credits:	15	

*NVSC 101 for NROTC/MMR candidates

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
GBTT 251	Transportation Systems	3	
HIST 101	American Civilization I	3	
HUMN 201	Humanities I	3	
METE 201	Meteorology for Mariners	3	
MT 250	Ship Construction & Stability	2	
NAUT 307	Nautical Operations: Legal	2	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	19.5	

	Spring Semester	cr.	
CHEM 100	Introductory Chemistry	3	
ENGR 540	Intro to Ship Systems	3	
HIST 102	American Civilization II	3	
GBTT 252	Business of Shipping	3	
HUMN 202	Humanities II	3	
NAVG 212	Celestial Navigation	4	
PE 20x	Lifetime Sports	1	
	Total Credits:	20.0	

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits 83

**Bachelor of Science
Marine Operations- Deck License
Upper Division**

Junior Year

	Fall Semester	cr.	
ENGR 541	Ship Systems I	3	
GBMG 341	Organizational Management	3	
MT 212	Ship Management	3	
MT 321	Intro to Cargo Ops & Stability	3	
NAUT 308	Nautical Operations: Safety	2	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
	Total Credits:	19	

	Spring Semester	cr.	
GBAC 311	Financial Accounting	3	
GBUS 300	International Business	3	
MATH 251	Statistics	3	
MT 322	Marine Cargo Operations	3	
NAUT 416	Bridge Watchstanding	3	
NAVG 312	Electr Nav & Voyage Planning	4	
	Total Credits:	19	

MT 530	Summer Sea Term III	5	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
GBTT 457	Port and Terminal Operations	3	
MT 408	International Safety Mgt	3	
MT 426	Maritime Communications	3	
NAUT 408	License Seminar	2	
NAVG 402	Advanced Marine Navigation	2	
	Humanities/SS elective	3	
	MT/GBAT Elective	3	
	Total Credits:	19	

	Spring Semester	cr.	
GBLW 435	Environmental Law and Policy	3	
MT 435	Maritime Security	3	
	Humanities/SS elective	3	
	MT/GBAT Elective	3	
	MT/GBAT Elective	3	
	Total Credits:	15	

Total Credits for Degree: 161

Bachelor of Science Marine Operations- Engine License Lower Division

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calculus I	4	
NVSC 103	Basic Naval Science*	1	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies I	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

*NVSC 101 for NROTC/MMR candidates

	Spring Semester	cr.	
CHEM 100	Introductory Chemistry	3	
ENGL 102	Freshman English II	3	
ENGR 540	Intro to Ship Systems	3	
ENGR 100	Engineering Graphics	1	
ENGR 102	Intro to Engineering	1	
GBUS 100	Intro to Business & Economics	3	
MATH 112	Applied Calculus II	3	
PE 100	Swimming and Water Safety	1	
	Total Credits:	18	

ENGR 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
CHEM 212	Materials Science	3	
ENGR 503	Manufacturing Process I	1	
ENGR 541	Ship Systems I	2	
GBTT 251	Transportation Systems	3	
HIST 101	American Civilization I	3	
HUMN 201	Humanities I	3	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	18.5	

	Spring Semester	cr.	
ENGR 504	Manufacturing Process II	1	
ENGR 542	Intro to Ship Systems II	3	
HIST 102	American Civilization II	3	
GBTT 252	The Business of Shipping	3	
HUMN 202	Humanities II	3	
PHYS 214	General Physics II	4	
PHYS 216	General Physics Lab	0.5	
	Total Credits:	17.5	

ENGR 520	Summer Sea Term II	5	
PE 411	Medical Care Provider	1	

or

ENGR 521	Cadet Observer	6	
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(student taking Cadet Observer still owes PE 411)

Total Lower Division Credits 83

**Bachelor of Science
Marine Operations- Engine License
Upper Division**

Junior Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 290	Electrical Engineering I	3	
ENGR 243	Transport Processes	3	
ENGR 543	Ship Systems III	3	
GBMG 341	Organizational Management	3	
MT 212	Ship Management	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 371	Applied Naval Architecture	3	
ENGR 380	Electrical Engineering II	3	
ENGR 544	Ship Systems IV	3	
GBAC 311	Financial Accounting	3	
MATH 251	Statistics	3	
NAUT 308	Nautical Operations: Safety	2	
PE 20x	Lifetime Sports	1	
	Total Credits:	18	

ENGR 530	Summer Sea Term III	6	
ENGR 516	Engine License Seminar	0	

Senior Year

	Fall Semester	cr.	
GBTT 457	Port and Terminal Operations	3	
GBUS 300	International Business	3	
MT 408	International Safety Mgt	3	
	Humanities/SS elective	3	
	MT/GBAT Elective	3	
	MT/GBAT elective	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 446	Marine Engine Theory & Appl.	3	
GBLW 435	Environmental Law and Policy	3	
MT 435	Maritime Security	3	
	Humanities/SS elective	3	
	MT/GBAT Elective	3	
	Total Credits:	15	

Total Credits for Degree: 158

Bachelor of Science Marine Transportation - Deck License Lower Division

This page shows the first two years for all students majoring in Marine Transportation

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calculus I	4	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBUS 100	Intro to Business & Economics	3	
MATH 112	Applied Calculus II	3	
NAVG 112	Terrestrial Navigation	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
	Total Credits:	15	

*NVSC 101 in Fall semester for NROTC/MMR candidates

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBTT 251	Transportation Systems	3	
HUMN 201	Humanities I	3	
METE 201	Meteorology for Mariners	3	
MT 250	Ship Construction & Stability	2	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	17.5	

	Spring Semester	cr.	
GBAC 311	Financial Accounting	3	
GBEC 122	Microeconomics	3	
GBTT 252	Business of Shipping <i>or</i>	3	
MT 212	Ship Management*		
HUMN 202	Humanities II	3	
MATH 251	Statistics	3	
NAVG 212	Celestial Navigation	4	
	Total Credits:	19	

* for students pursuing minor in
Ship Management

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits: 79.5

**Bachelor of Science
Marine Transportation - Deck License
Lower Division**

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calculus I	4	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBUS 100	Intro to Business & Economics	3	
MATH 112	Applied Calculus II	3	
NAVG 112	Terrestrial Navigation	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
	Total Credits:	15	

*NVSC 101 in Fall semester for NROTC/MMR candidates

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBT 251	Transportation Systems	3	
HUMN 201	Humanities I	3	
METE 201	Meteorology for Mariners	3	
MT 250	Ship Construction & Stability	2	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	17.5	

	Spring Semester	cr.	
GBAC 311	Financial Accounting	3	
GBEC 122	Microeconomics	3	
GBT 252	Business of Shipping	3	
HUMN 202	Humanities II	3	
MATH 251	Statistics	3	
NAVG 212	Celestial Navigation	4	
	Total Credits:	19	

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits: 79.5

**Bachelor of Science
Marine Transportation - Deck License
Upper Division**

Junior Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBMG 341	Organizational Management	3	
GBUS 300	International Business	3	
HIST 101	American Civilization I	3	
MT 321	Intro to Cargo Ops & Stability	3	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
PE 20x	Lifetime Sports	1	
	Total Credits:	21	

	Spring Semester	cr.	
GBEC 427	Financial Management	3	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
NAUT 307	Nautical Operations: Legal	2	
NAUT 308	Nautical Operations: Safety	2	
NAVG 312	Electr Nav & Voyage Planning	4	
	MT or GBAT Elective	3	
	Total Credits:	20	

MT 530	Summer Sea Term III	5	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
GBLW 431	Business Law	3	
GBMG 345	Fundamentals of Marketing	3	
MT 426	Maritime Communications	3	
NAUT 408	License Seminar	2	
NAVG 402	Advanced Marine Navigation	2	
	Humanities/SS Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBEC 429	Seminar: Transport. Economics <i>or</i>	3	
GBMG 440	Seminar: Strategy and Policy		
GBMG 446	Operations Research	3	
NAUT 416	Bridge Watchstanding	3	
	Humanities/SS Elective	3	
	MT Elective	3	
	MT Elective	3	
	Total Credits:	18	

Total Credits for Degree: 160.5

**Bachelor of Science
Marine Transportation - Deck License
Ship Management Minor
Lower Division**

Freshman Year

	Fall Semester	cr.	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calculus I	4	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBUS 100	Intro to Business & Economics	3	
MATH 112	Applied Calculus II	3	
NAVG 112	Terrestrial Navigation	4	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
	Total Credits:	15	

*NVSC 101 in Fall semester for NROTC/MMR candidates

MT 510	Summer Sea Term I	6	
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Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBTT 251	Transportation Systems	3	
HUMN 201	Humanities I	3	
METE 201	Meteorology for Mariners	3	
MT 250	Ship Construction & Stability	2	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	17.5	

	Spring Semester	cr.	
GBAC 311	Financial Accounting	3	
GBEC 122	Microeconomics	3	
MT 212	Ship Management	3	
HUMN 202	Humanities II	3	
MATH 251	Statistics	3	
NAVG 212	Celestial Navigation	4	
	Total Credits:	19	

MT 520	Summer Sea Term II	6	
	<i>or</i>		
MT 521	Cadet Observer		

Total Lower Division Credits: 79.5

**Bachelor of Science
Marine Transportation - Deck License
Ship Management Minor
Upper Division**

Junior Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBMG 341	Organizational Management	3	
HIST 101	American Civilization I	3	
MT 321	Intro to Cargo Ops & Stability	3	
MT 426	Maritime Communications	3	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
PE 20x	Lifetime Sports	1	
	Total Credits:	21	

	Spring Semester	cr.	
GBEC 427	Financial Management	3	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
NAUT 307	Nautical Operations: Legal	2	
NAUT 308	Nautical Operations: Safety	2	
NAUT 416	Bridge Watchstanding	3	
NAVG 312	Electr Nav & Voyage Planning	4	
	Total Credits:	20	

MT 530	Summer Sea Term III	5	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
GBLW 431	Business Law	3	
GBMG 443	Cross-Cultural Management	3	
GBUS 300	International Business	3	
NAUT 408	License Seminar	2	
NAVG 402	Advanced Marine Navigation	2	
	Humanities/SS Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBEC 429	Seminar: Transport. Economics <i>or</i>	3	
GBMG 440	Seminar: Strategy and Policy		
GBMG 446	Operations Research	3	
MT 404	Environmental Management	3	
MT 408	International Safety Management	3	
	Humanities/SS Elective	3	
	MT Elective	3	
	Total Credits:	18	

Total Credits for Degree: 160.5

**Bachelor of Science
Maritime Studies - Intern
Lower Division**

Freshman Year

	Fall Semester	cr.	
CHEM 121	General Chemistry I	3	
CHEM 122	General Chemistry I Laboratory	1	
CS 100	Intro to Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calculus I	4	
PS 111	Professional Studies	2	
	Total Credits:	17	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBUS 100	Intro to Business & Economics	3	
HIST 101	American Civilization I	3	
MATH 112	Applied Calculus II	3	
METE 201	Meteorology for Mariners	3	
NVSC 103	Basic Naval Science*	1	
PE 100	Swimming and Water Safety	1	
	Total Credits:	17	

*NVSC 101 in Fall semester for NROTC/MMR candidates

Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBTT 251	Transportation Systems	3	
HIST 102	American Civilization II	3	
HUMN 201	Humanities I	3	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	16.5	

	Spring Semester	cr.	
ENGL 452	Technical Writing	3	
GBEC 122	Microeconomics	3	
GBTT 252	Business of Shipping	3	
HUMN 202	Humanities II	3	
MATH 251	Statistics	3	
PE 20x	Lifetime Sports	1	
	Total Credits:	16	

Total Lower Division Credits: 66.5

**Bachelor of Science
Maritime Studies - Intern
Upper Division**

Junior Year

	Fall Semester	cr.	
BIO 201	General Biology <i>or</i>	4	
OCEA 303	General Oceanography		
GBLW 4xx	Law Elective	3	
	Foreign Language/Culture I	3	
	Track Option Course	3	
	Track Option Course	3	
	Total Credits:	16	

	Spring Semester	cr.	
BIO 210	Ecology <i>or</i>		
HIST 465	History of Science <i>or</i>	3	
OCEA xxx	Oceanography Elective		
GBLW 4xx	Law Elective	3	
	Foreign Language/Culture II	3	
	Track Option Course	3	
	Track Option Course	3	
	Total Credits:	15	

Senior Year

	Fall Semester	cr.	
ENGL 456	Advanced Technical Writing <i>or</i>	3	
HUMN 465	Humanities Research Methods		
HUMN 505	Humanities Internship I	3	
	Humanities/SS Elective	3	
	Track Option Course	3	
	Track Option Course	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 424	Intl. Economics and Finance <i>or</i>		
GBEC 428	Economic Geography <i>or</i>	3	
GBMG 341	Organizational Management		
HUMN 490	Seminar in Maritime Studies	3	
HUMN 515	Humanities Internship II <i>or</i>	3	
	Free Elective		
	Humanities/SS Elective	3	
	Track Option Course	3	
	Total Credits:	15	

Total Credits for Degree: 127.5

**Bachelor of Science
Maritime Studies
Track Option Courses**

All students take a total of 7 courses, with 3 or 4 courses from each track.
Courses with indication of FLC are Foreign Language/Culture Electives.

TRACK I: THE ARTS

		cr.			cr.	
ENGL 407	Poetry	3		ENGL 468	Biography/Autobiography	3
ENGL 408	Modern Poetry	3		ENGL 470	Major British Authors	3
ENGL 409	Drama	3		ENGL 471	Major American Authors	3
ENGL 410	Greek Drama	3		ENGL 474	Film I	3
ENGL 411	The Novel I	3		ENGL 475	Film II	3
ENGL 412	The Novel II	3		ENGL 477	Film and Fiction Studies	3
ENGL 413	Novels of Latin America	3	FLC	HUMN 300	Humanities III	3
ENGL 415	Literature of Colonialism	3		HUMN 400	History of Art	3
ENGL 418	Contemporary Literature	3		HUMN 401	Studio Drawing and Painting	3
ENGL 420	Comedy	3		HUMN 402	Images of Men, Women, Machines	3
ENGL 423	Shakespeare	3		HUMN 403	A History of Western Music	3
ENGL 426	Science and Literature	3		HUMN 404	Art and Technology	3
ENGL 453	Creative Writing	3				

TRACK II: THE HUMANITIES

		cr.			cr.		
ENGL 416	Literature of the Sea	3		HIST 422	Turning Points in U.S. History	3	
ENGL 450	Speech	3		HIST 425	History of Technology	3	
HIST 401	Topics in European Civil. I	3		HUMN 407	Literature of Leadership	3	
HIST 402	Topics in European Civil. II	3		HUMN 412	Models for Decision Making	3	
HIST 415	Topics in American Social Hist.	3		HUMN 458	Moral Choices in Literature	3	
HIST 416	U.S. Maritime Hist. to Civil War	3		HUMN 460	The Bible as/in Literature	3	
HIST 417	U.S. Maritime Hist. after 1865	3		HUMN 461	Religion	3	
HIST 418	Hist. of American Foreign Policy	3		SPAN 101	Spanish I	3	FLC
HIST 420	Sea Power and Maritime Affairs	3		SPAN 102	Spanish II	3	FLC
HIST 421	Vietnam and America	3	FLC	SS 400	Fund. of International Relations	3	

Associate in Applied Science Marine Technology/Small Vessel Operations

Freshman Year

	Fall Semester	cr.	
CS 100	Intro To Business Computing	2	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 90	Intro to College Math	4	
PE 100	Swimming	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
GBUS 100	Intro to Business and Economics	3	
HIST 101	American Civilization I	3	
MT 250	Ship Construction & Stability	2	
NAVG 112	Terrestrial Navigation	4	
PE 101	Lifetime Fitness & Conditioning	1	
	Total Credits:	16	

MT 510	Summer Sea Term I	6	
MTDO 524	Cadet Observer Lim Tonnage I	2	

Sophomore Year

	Fall Semester	cr.	
METE 201	Meteorology for Mariners	3	
MT 321	Intro to Cargo Ops & Stability	3	
NAUT 307	Nautical Operations: Legal	2	
NAUT 308	Nautical Operations: Safety	2	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
NAUT 410	Tugs and Towing I	3	
	Total Credits:	18	

	Spring Semester	cr.	
MT 322	Marine Cargo Operations	3	
NAUT 411	Tugs & Towing II	3	
NAUT 416	Bridge Watchstanding	3	
NAVG 312	Electr Nav & Voyage Planning	4	
PE 411	Medical Care Provider	1	
	Total Credits:	14	
Ocean Endorsement Option:			
MT 426	Maritime Communications	3	
NAVG 212	Celestial Navigation	4	
	Total Credits:	21	

MTDO 525	Cadet Observer Lim Tonnage II	4	
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Total Credits for Degree 76
Ocean Endorsement 83