



MARITIME COLLEGE
UNDERGRADUATE
DEGREE CURRICULA

For Students Entering
Maritime College
During
2012 - 2013 Academic Year

As of 10/3/2012

UNDERGRADUATE DEGREE CURRICULA

Bachelor of Engineering (common freshman year)

Electrical Engineering - Deck License

Electrical Engineering - Engine License

Electrical Engineering - Intern Option

Facilities Engineering - Engine License

Facilities Engineering - Intern Option

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 Concentration - Deck License

Bachelor of Science in Marine Environmental Science - MarineBiology Minor - Deck License

Bachelor of Science in Marine Environmental Science - MarineBiology Minor - Intern Option

Bachelor of Science in Marine Environmental Science - Meteorology & Oceanography Minor - Deck License

Bachelor of Science in Marine Environmental Science - 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 - Assistant Engineer Limited

Associate in Applied Science in Marine Technology: Small Vessel Operations - Deck Limited License

Bachelor of Engineering Engine License or Intern Option Common Freshman Curriculum

This page shows the first year 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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Engineer	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Bachelor of Engineering Deck License Common Freshman Curriculum

This page shows the first year for all Bachelor of Engineering students taking Deck License.

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Engineer	3	
MATH 102	Calculus II	4	
NAUT 102	Intro Vessel Ops & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PHYS 102	Engineering Physics I	4	
	Total Credits:	19	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Bachelor of Engineering Electrical Engineering - 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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Enginee	3	
MATH 102	Calculus II	4	
NAUT 102	IntroVesselOps & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PHYS 102	Engineering Physics I	4	
	Total Credits:	19	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HUMN 201	World Literature & Culture I	3	
MATH 211	Calculus III	4	
METE 201	Meteorology for Mariners	3	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	19	

	Spring Semester	cr.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 290	Electrical Engineering I	3	
HIST 101	American Civilization I	3	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
NAVG 212	Celestial Navigation	4	
	Total Credits:	19	

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

(Continued on next page)

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 - Deck License
Upper Division**

Junior Year

	Fall Semester	cr.	
ENGR 345	Engineering Statistical Analysis	3	
ENGR 383	Network Analysis	3	
ENGR 387	Electronics I	4	
ENGR 394	Electro Magnetic Fields	3	
NAUT 314	Rules of the Road	2	
NAUT 315	Collision Avoidance	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 384	Power Electronics	3	
ENGR 388	Electronics II	4	
ENGR 395	Electric Machines	3	
MT 250	Ship Construction and Stability	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.	
ENGR 443	Engineering Economics	3	
ENGR 481	Communications Theory	3	
ENGR 484	Electric Drives	3	
ENGR 488	Electrical Design I	4	
HIST 102	American Civilization II	3	
MT 321	Intro to Cargo Ops & Stability	3	
	Total Credits:	19	

	Spring Semester	cr.	
ENGR 428	Computerized Control Systems	3	
ENGR 483	Control Systems Theory	3	
ENGR 489	Electrical Design II	4	
ENGR 495	Marine Electrical System	3	
MT 322	Marine Cargo Operations	3	
PE 2xx	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 or SocSci elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

Total Credits for Degree: 181

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Enginee	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	World Literature & Culture 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.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 290	Electrical Engineering I	3	
HIST 101	American Civilization I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
	Total Credits:	18	

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

Total Lower Division Credits: 84

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.

(Continued on next page)

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 345	Engineering Statistical Analysis	3	
ENGR 371	Applied Naval Architecture	3	
ENGR 383	Network Analysis	3	
ENGR 387	Electronics I	4	
ENGR 394	Electromagnetic Fields	3	
ENGR 543	Ship Systems III	3	
	Total Credits:	19	

	Spring Semester	cr.	
ENGR 384	Power Electronics	3	
ENGR 388	Electronics II	4	
ENGR 395	Electric Machines	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	5	
ENGR 516	Engine License Seminar	0	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
ENGR 481	Communications Theory	3	
ENGR 484	Electric Drives	3	
ENGR 488	Electrical Design I	4	
PE 2xx	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 428	Computerized Control Systems	3	
ENGR 443	Engineering Economics	3	
ENGR 483	Control Systems Theory	3	
ENGR 489	Electrical Design II	4	
ENGR 495	Marine Electrical Systems	3	
	Humanities or SocSci elective	3	
	Total Credits:	19	

Total Credits for Degree: 163

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Engineer	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HUMN 201	World Literature & Culture I	3	
MATH 211	Calculus III	4	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Applied Engineering Elective	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 290	Electrical Engineering I	3	
HIST 101	American Civilization I	3	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
	Applied Engineering Elective	3	
	Total Credits:	18	

ENGR 525	Industrial Internship I	6	
----------	-------------------------	---	--

Total Lower Division Credits: 84

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.

(Continued on next page)

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 345	Engineering Statistical Analysis	3	
ENGR 383	Network Analysis	3	
ENGR 387	Electronics I	4	
ENGR 394	Electromagnetic Fields	3	
	Applied Engineering Elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	19	

	Spring Semester	cr.	
ENGR 384	Power Electronics	3	
ENGR 388	Electronics II	4	
ENGR 395	Electric Machines	3	
HIST 102	American Civilization II	3	
	Applied Engineering Elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	19	

ENGR 535	Industrial Internship II	6	
----------	--------------------------	---	--

Senior Year

	Fall Semester	cr.	
ENGR 443	Engineering Economics	3	
ENGR 481	Communications Theory	3	
ENGR 484	Electric Drives	3	
ENGR 488	Electrical Design I	4	
PE 2xx	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 428	Computerized Control Systems	3	
ENGR 483	Control Systems Theory	3	
ENGR 489	Electrical Design II	4	
ENGR 495	Marine Electrical Systems	3	
	Engr/Sci Elective	3	
		16	

Total Credits for Degree: 161

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Enginee	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	World Literature & Culture 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.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 244	Dynamics	3	
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
	Total Credits:	18	

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

Total Lower Division Credits: 84

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.

(Continued on next page)

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 344	Thermodynamics	3	
ENGR 345	Engineering Statistical Analysis	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 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	5	
ENGR 516	Engine License Seminar	0	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
ENGR 350	Analog Controls	3	
ENGR 423	HVAC System Design	3	
ENGR 425	Facilities Engr Design I	4	
ENGR 443	Engineering Economics	3	
PE 2xx	Lifetime Sports	1	
	Humanities or SocSci 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 426	Facilities Engr Design II	4	
ENGR 444	Project Management	3	
	Humanities or SocSci elective	3	
	Total Credits:	15	

Total Credits for Degree: 160

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Engineer	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HIST 101	American Civilization I	3	
HUMN 201	World Literature & Culture 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.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 244	Dynamics	3	
ENGR 290	Electrical Engineering I	3	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
HIST 102	American Civilization II	3	
	Total Credits:	18	

ENGR 525	Industrial Internship I	6	
----------	-------------------------	---	--

Total Lower Division Credits: 84

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.

(Continued on next page)

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 344	Thermodynamics	3	
ENGR 345	Engineering Statistical Analysis	3	
ENGR 380	Electrical Engineering II	3	
	Applied Engineering Elective	3	
	Humanities or SocSci 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 or SocSci elective	3	
	Total Credits:	18	

ENGR 535	Industrial Internship II	6	
----------	--------------------------	---	--

Senior Year

	Fall Semester	cr.	
ENGR 350	Analog Controls	3	
ENGR 423	HVAC System Design	3	
ENGR 425	Facilities Engr Design I	4	
ENGR 443	Engineering Economics	3	
PE 2xx	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 348	Strength of Materials Lab	1	
ENGR 349	Transport Processes Laboratory	1	
ENGR 426	Facilities Engr Design II	4	
ENGR 444	Project Management	3	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	15	

Total Credits for Degree: 158

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 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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Enginee	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	World Literature & Culture 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.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 244	Dynamics	3	
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
	Total Credits:	18	

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

Total Lower Division Credits: 84

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.

(Continued on next page)

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 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 345	Engineering Statistical 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	5	
ENGR 516	Engine License Seminar	0	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
ENGR 371	Applied Naval Architecture	3	
ENGR 440	Marine Engineering Design II	3	
ENGR 443	Engineering Economics	3	
ENGR 453	Modern Concepts	3	
PE 2xx	Lifetime Sports	1	
	Engr/Sci Elective A	3	
	Humanities or SocSci elective	3	
	Total Credits:	19	

	Spring Semester	cr.	
ENGR 349	Transport Processes Laboratory	1	
ENGR 350	Analog Controls	3	
ENGR 450	Marine Engineering Design III	3	
ENGR 495	Marine Electrical Systems	3	
	Engr/Sci Elective B	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

Total Credits for Degree: 164

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

ENGR 311	Kinematics	3
ENGR 387	Electronics I	4
ENGR 601	Independent Study in Engr. I	3

Engr/Sci Elective B

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Engineer	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	World Literature & Culture 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.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 244	Dynamics	3	
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
	Total Credits:	18	

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

Total Lower Division Credits: 84

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.

(Continued on next page)

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 344	Thermodynamics	3	
ENGR 347	Strength of Materials	3	
ENGR 348	Strength of Materials Lab	1	
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:	18	

	Spring Semester	cr.	
ENGR 312	Machine Design	3	
ENGR 341	Fluid Mechanics	3	
ENGR 345	Engineering Statistical Analysis	3	
ENGR 354	Marine Engineering Design I	3	
ENGR 544	Ship Systems IV	3	
HIST 102	American Civilization II	3	
	Total Credits:	18	

ENGR 530	Summer Sea Term III	5	
ENGR 516	Engine License Seminar	0	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
ENGR 371	Applied Naval Architecture	3	
ENGR 390	Electrical Engineering III	3	
ENGR 418	Mechanical Engineering Design	4	
ENGR 454	Vibrations	3	
PE 2xx	Lifetime Sports	1	
	Humanities or SocSci elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 349	Transport Processes Laboratory	1	
ENGR 351	Heat Transfer	3	
ENGR 419	Mechanical Engineering Design II	4	
ENGR 443	Engineering Economics	3	
	Engr/Sci Elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	17	

Total Credits for Degree: 160

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Enginee	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HIST 101	American Civilization I	3	
HUMN 201	World Literature & Culture 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.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 244	Dynamics	3	
ENGR 290	Electrical Engineering I	3	
HIST 102	American Civilization II	3	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
	Total Credits:	18	

ENGR 525	Industrial Internship I	6	
----------	-------------------------	---	--

Total Lower Division Credits: 84

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.

(Continued on next page)

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 344	Thermodynamics	3	
ENGR 347	Strength of Materials	3	
ENGR 348	Strength of Materials Lab	1	
ENGR 380	Electrical Engineering II	3	
	Applied Engineering Elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
ENGR 312	Machine Design	3	
ENGR 341	Fluid Mechanics	3	
ENGR 345	Engineering Statistical Analysis	3	
ENGR 354	Marine Engineering Design I	3	
	Applied Engineering Elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	18	

ENGR 535	Industrial Internship II	6	
----------	--------------------------	---	--

--	--	--	--

Senior Year

	Fall Semester	cr.	
ENGR 390	Electrical Engineering III	3	
ENGR 418	Mechanical Engineering Design	4	
ENGR 454	Vibrations	3	
PE 2xx	Lifetime Sports	1	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 349	Transport Processes Laboratory	1	
ENGR 351	Heat Transfer	3	
ENGR 419	Mechanical Engineering Design II	4	
ENGR 443	Engineering Economics	3	
	Applied Engineering Elective	3	
	Engr/Sci Elective	3	
	Total Credits:	17	

Total Credits for Degree: 158

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	18	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Enginee	3	
MATH 102	Calculus II	4	
NAUT 102	IntroVesselOps & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PHYS 102	Engineering Physics I	4	
	Total Credits:	19	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
HUMN 201	World Literature & Culture I	3	
MATH 211	Calculus III	4	
METE 201	Meteorology for Mariners	3	
PE 101	Lifetime Fitness & Conditioning	1	
PHYS 201	Engineering Physics II	4	
PHYS 202	Engineering Physics Lab	1	
	Total Credits:	19	

	Spring Semester	cr.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 244	Dynamics	3	
HIST 101	American Civilization I	3	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
NAVG 212	Celestial Navigation	4	
	Total Credits:	19	

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

(Continued on next page)

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 344	Thermodynamics	3	
ENGR 347	Strength of Materials	3	
ENGR 363	Ship Statics	3	
ENGR 365	Ship Form and Graphics	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 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.	
ENGR 290	Electrical Engineering I	3	
ENGR 345	Engineering Statistical 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 354	Marine Engineering Design I	3	
ENGR 471	Ship Design III	4	
ENGR 473	Ship Dynamics	3	
MT 322	Marine Cargo Operations	3	
PE 2xx	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 or SocSci elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

Total Credits for Degree: 181

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 - 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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Engineer	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	World Literature & Culture 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.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 244	Dynamics	3	
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
	Total Credits:	18	

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

Total Lower Division Credits: 84

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.

(Continued on next page)

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	
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	5	
ENGR 516	Engine License Seminar	0	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
ENGR 345	Engineering Statistical Analysis	3	
ENGR 348	Strength of Materials Lab	1	
ENGR 461	Ship Design II	4	
ENGR 462	Ship Resistance and Propulsion	3	
PE 2xx	Lifetime Sports	1	
	Engr/Sci Elective	3	
	Humanities or SocSci 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 or SocSci elective	3	
	Total Credits:	16	

Total Credits for Degree: 165

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	
PE 103	Water Safety & Survival	1	
PS 111	Professional Studies	2	
PS 112	Basic Safety Training	2	
	Total Credits:	17	

	Spring Semester	cr.	
CHEM 212	Materials Science I	3	
ENGL 103	Freshman English II for Engineer	3	
ENGR 100	Engineering Graphics	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:	19	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 503	Manufacturing Processes I	1	
ENGR 541	Ship Systems I	2	
HUMN 201	World Literature & Culture 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.	
ENGR 200	Intro to Engineering Analysis	2	
ENGR 244	Dynamics	3	
ENGR 290	Electrical Engineering I	3	
ENGR 504	Manufacturing Processes II	1	
ENGR 542	Ship Systems II	2	
HUMN 202	World Literature & Culture II	3	
MATH 212	Differential Equations	4	
	Total Credits:	18	

ENGR 525	Industrial Internship I	6	
----------	-------------------------	---	--

Total Lower Division Credits: 84

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.

(Continued on next page)

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.

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	
HIST 101	American Civilization I	3	
ENGR 543	Ship Systems III	3	
	Total Credits:	18	

	Spring Semester	cr.	
ENGR 341	Fluid Mechanics	3	
HIST 102	American Civilization II	3	
ENGR 344	Thermodynamics	3	
ENGR 366	Ship Structure	3	
ENGR 368	Ship Design I	3	
ENGR 443	Engineering Economics	3	
	Total Credits:	18	

ENGR 535	Industrial Internship II	6	
----------	--------------------------	---	--

Senior Year

	Fall Semester	cr.	
ENGR 345	Engineering Statistical 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 2xx	Lifetime Sports	1	
	Humanities or SocSci 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 or SocSci elective	3	
	Total Credits:	19	

Total Credits for Degree: 163

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		
PS 111	Professional Studies	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
HIST 101	American Civilization I	3	
MATH 251	Statistics	3	
PE 100	Swimming	1	
	Free Elective	3	
	GenEd: Natural Science w/Lab	3	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBAC 311	Financial Accounting	3	
GBEC 121	Macroeconomics	3	
HIST 102	American Civilization II	3	
HUMN 201	World Literature & Culture I	3	
PE 101	Lifetime Fitness & Conditioning	1	
	Total Credits:	16	

	Spring Semester	cr.	
GBAC 315	Managerial Accounting	3	
GBEC 122	Microeconomics	3	
HUMN 202	World Literature & Culture II	3	
PE 2xx	Lifetime Sports	1	
	Humanities or SocSci elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

Total Lower Division Credits: 64

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, GBAC 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 <i>or</i>	4	
MATH 111	Applied Calculus I		
PS 111	Professional Studies	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
HIST 101	American Civilization I	3	
MATH 251	Statistics	3	
PE 100	Swimming	1	
	Free Elective	3	
	GenEd: Natural Science w/Lab	3	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBAC 311	Financial Accounting	3	
GBEC 121	Macroeconomics	3	
HIST 102	American Civilization II	3	
HUMN 201	World Literature & Culture I	3	
PE 101	Lifetime Fitness & Conditioning	1	
	Total Credits:	16	

	Spring Semester	cr.	
GBAC 315	Managerial Accounting	3	
GBEC 122	Microeconomics	3	
HUMN 202	World Literature & Culture II	3	
PE 2xx	Lifetime Sports	1	
	Humanities or SocSci elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

Total Lower Division Credits: 64

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, GBAC 315.**

Bachelor of Science
International Transportation and Trade - Intern
Upper Division

Junior Year

	Fall Semester	cr.	
GBEC 424	Intl. Economics and Finance	3	
GBLW 431	Business Law	3	
GBMG 341	Organizational Management	3	
GBT 251	Transportation Systems	3	
	International Studies Elective	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 427	Financial Management	3	
GBEC 428	Economic Geography	3	
GBMG 345	Fundamentals of Marketing	3	
GBT 252	Business of Shipping	3	
GBT 451	Marine Insurance	3	
	GBAT Elective	3	
	Total Credits:	18	

GBUS 525	ITT Internship / Work Exp.	6	
	or		
GBUS 526	ITT Study Abroad		

Senior Year

	Fall Semester	cr.	
GBLW 433	Admiralty Law	3	
GBLW 435	Environmental Law & Policy	3	
GBT 453	Import/Export & Traffic Mgt.	3	
GBT 457	Port and Terminal Operations	3	
	International Studies Elective	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 429	Seminar: Transport. Economics	3	
	<i>or</i>		
GBMG 440	Seminar: Strategy and Policy		
MATH 446	Operations Research	3	
GBT 351	International Logistics	3	
GBUS 300	International Business	3	
	GBAT Elective	3	
	Total Credits:	15	

Total Upper Division Credits: 69
Total Credits for Degree: 133

GBAT Electives: Any GBAT course or any course in the Minor in Intermodal and Maritime Security

International Studies Electives

ENGL 413	Novels of Latin America	HIST 401-02	Topics in European Civilization I-II
ENGL 415	Literature of Colonialism	HIST 418	Hist. of American Foreign Policy
ENGL 416	Literature of the Sea	HIST 421	Vietnam and America
ENGL 418	Contemporary Literature	HIST 425	History of Technology
ENGL 470	Major British Authors	MT 408	International Safety Management
GBLW 437	International Law	MT 435	Maritime Security
GBMG 347	Entrepreneurship in ITT	NVSC 102	Sea Power and Maritime Affairs
GBMG 442	International Marketing Mgt.	NVSC 311	Evolution of Warfare
GBMG 443	Cross-Cultural Management		Foreign language courses.
GBT 460	Principles of Global Supply Chain Security		Courses in study abroad programs will be
GBUS 526	ITT Study Abroad		evaluated by the department chair.

**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		
PS 111	Professional Studies	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
HIST 101	American Civilization I	3	
MATH 251	Statistics	3	
PE 100	Swimming	1	
	Free Elective	3	
	GenEd: Natural Science w/Lab	3	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBAC 311	Financial Accounting	3	
GBEC 121	Macroeconomics	3	
HIST 102	American Civilization II	3	
HUMN 201	World Literature & Culture I	3	
PE 101	Lifetime Fitness & Conditioning	1	
	Total Credits:	16	

	Spring Semester	cr.	
GBAC 315	Managerial Accounting	3	
GBEC 122	Microeconomics	3	
HUMN 202	World Literature & Culture II	3	
PE 2xx	Lifetime Sports	1	
	Humanities or SocSci elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

Total Lower Division Credits: 64

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, GBAC 315.**

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

Junior Year

	Fall Semester	cr.	
GBEC 424	Intl. Economics and Finance	3	
GBLW 431	Business Law	3	
GBMG 341	Organizational Management	3	
GBMG 348	Business Ethics	3	
GBT 251	Transportation Systems	3	
	Total Credits:	15	

	Spring Semester	cr.	
ENGL 450	Speech	3	
GBEC 427	Financial Management	3	
GBEC 428	Economic Geography	3	
GBMG 345	Fundamentals of Marketing	3	
GBT 252	Business of Shipping	3	
GBT 451	Marine Insurance	3	
	Total Credits:	18	

GBUS 525	ITT Internship / Work Exp. or	6	
GBUS 526	ITT Study Abroad		

Senior Year

	Fall Semester	cr.	
ENGL 456	Advanced Technical Writing	3	
GBLW 433	Admiralty Law*	3	
GBLW 435	Environmental Law & Policy*	3	
GBT 453	Import/Export & Traffic Mgt.*	3	
GBT 457	Port and Terminal Operations*	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 429	Seminar: Transport. Economics or	3	
GBMG 440	Seminar: Strategy and Policy		
MATH 446	Operations Research	3	
GBT 351	International Logistics*	3	
GBUS 300	International Business*	3	
	Business Commun. Elective	3	
	Total Credits:	15	

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

	Business Commun. Elective	3	
--	---------------------------	---	--

Total Upper Division Credits: 69

Total Credits for Degree: 133

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		
PS 111	Professional Studies	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
HIST 101	American Civilization I	3	
MATH 251	Statistics	3	
PE 100	Swimming	1	
	Free Elective	3	
	GenEd: Natural Science w/Lab	3	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBAC 311	Financial Accounting	3	
GBEC 121	Macroeconomics	3	
HIST 102	American Civilization II	3	
HUMN 201	World Literature & Culture I	3	
PE 101	Lifetime Fitness & Conditioning	1	
	Total Credits:	16	

	Spring Semester	cr.	
GBAC 315	Managerial Accounting	3	
GBEC 122	Microeconomics	3	
HUMN 202	World Literature & Culture II	3	
PE 2xx	Lifetime Sports	1	
	Humanities or SocSci elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

Total Lower Division Credits: 64

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, GBAC 315.**

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

Junior Year

	Fall Semester	cr.	
GBEC 424	Intl. Economics and Finance	3	
GBLW 431	Business Law	3	
GBMG 341	Organizational Management	3	
GBTT 251	Transportation Systems	3	
MT 435	<i>Maritime Security</i>	3	
	Total Credits:	15	

	Spring Semester	cr.	
GBEC 427	Financial Management	3	
GBEC 428	Economic Geography	3	
GBMG 345	Fundamentals of Marketing	3	
GBTT 252	Business of Shipping	3	
GBTT 451	Marine Insurance	3	
GBTT 460	<i>Global Supply Chain Security</i>	3	
	Total Credits:	18	

GBUS 525	ITT Internship / Work Exp. or	6	
GBUS 526	ITT Study Abroad		

Senior Year

	Fall Semester	cr.	
GBLW 433	Admiralty Law*	3	
GBLW 435	Environmental Law & Policy*	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 or	3	
GBMG 440	Seminar: Strategy and Policy		
MATH 446	Operations Research	3	
GBTT 351	International Logistics*	3	
GBUS 300	International Business*	3	
MT 430	<i>Emergency Mgt. Systems</i>	3	
	Total Credits:	15	

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

GBTT 465	<i>Contemporary Security Issues</i>	3	
----------	-------------------------------------	---	--

Total Upper Division Credits: 69

Total Credits for Degree: 133

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.
CS 100/101, Introduction to Business Computing & Computer Laboratory	3
ENGL 101, Freshman English I - Composition	3
ENGL 102, Freshman English II - Literature	3
ENGL 452, Technical Writing	3
GBAC 311, Financial Accounting	3
GBAC 315, Managerial Accounting	3
GBEC 121, Macroeconomics	3
GBEC 122, Microeconomics	3
GBUS 100, Introduction to Business & Economics	3
HIST 101/102, American Civilization I&II (Gen Ed: American History)	6
HUMN 201/202, World Lit & Culture I & II (Gen Ed: Western and Other Civilizations)	6
MATH 251, Statistics	3
MATH 90, Intro to College Math or MATH 111, Applied Calculus I	4
PE Elective	1
Free Electives	6
Humanities or SocSci electives	6
General Education: Natural Science w/Lab	3
Total Lower Division Transfer Credits:	62

Total Upper Division Program (found on previous pages) Credits: 69

Total Credits for Degree: 131

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, GBAC 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 251	Statistics	3	
MT 250	Ship Construction & Stability	2	
NAUT 102	Intro Vessel Ops & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PE 103	Water Safety & Survival	1	
	Total Credits:	17	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBTT 251	Transportation Systems	3	
HUMN 201	World Literature & Culture I	3	
METE 201	Meteorology for Mariners	3	
MT 435	Maritime Security	3	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	18.5	

	Spring Semester	cr.	
GBAC 311	Financial Accounting	3	
GBEC 122	Microeconomics	3	
GBTT 252	Business of Shipping	3	
HUMN 202	World Literature & Culture II	3	
NAUT 314	Rules of the Road	2	
NAVG 212	Celestial Navigation	4	
	Total Credits:	18	

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

Total Lower Division Credits: 81.5

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

Each semester below includes a group of Humanities Study Area Concentration (SAC) 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 315	Collision Avoidance	3	
PE 2xx	Lifetime Sports	1	
	Humanities SAC Elective	3	
	Humanities SAC Elective	3	
	Total Credits:	19	

	Spring Semester	cr.	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
NAUT 308	Nautical Operations: Safety	2	
NAVG 312	Electr Nav & Voyage Planning	4	
	Humanities SAC Elective	3	
	Humanities SAC Elective	3	
	Total Credits:	18	

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 SAC Elective	3	
	Humanities SAC Elective	3	
	Humanities or SocSci elective	3	
	Total Credits:	16	

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

Total Credits for Degree: 158.5

**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	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
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	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
NAUT 102	IntroVesselOps & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
OCEA 101	General Oceanography	4	
PE 103	Water Safety & Survival	1	
	Total Credits:	20	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	World Literature & Culture 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	World Literature & Culture II	3	
NAVG 212	Celestial Navigation	4	
PE 2xx	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	
MT 521	<i>or</i> Cadet Observer		

Total Lower Division Credits 88

**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	
	Total Credits:	17	

	Spring Semester	cr.	
BIO 320	Invertebrate Zoology	4	
ES 305	Remote Sensing	3	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
NAUT 308	Nautical Operations: Safety	2	
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.	
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 or SocSci 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 402	Estuaries & Coastal Processes	3	
	Humanities or SocSci Elective	3	
	MES Elective	3	
	Total Credits:	18	

Total Credits for Degree: 167

MES Electives

Marine Biology Minor cr.

ES 410 Marine Microbiology 3

ES 430 Environmntl. Impact Assessmen 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	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
	Total Credits:	16	

	Spring Semester	cr.	
CHEM 123	General Chemistry II	3	
CHEM 124	General Chemistry II Laboratory	1	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
OCEA 101	General Oceanography	4	
PE 100	Swimming	1	
	Total Credits:	15	

Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	World Literature & Culture 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	World Literature & Culture II	3	
PE 2xx	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 63

**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	
	MES Elective	3	
	Total Credits:	12	

	Spring Semester	cr.	
BIO 320	Invertebrate Zoology	4	
ES 305	Remote Sensing	3	
HIST 102	American Civilization II	3	
	Free Elective	3	
	Science/Mathematics Elective	3	
	Total Credits:	16	

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 or SocSci Elective	3	
	Total Credits:	15	

	Spring Semester	cr.	
BIO 416	Fisheries Science	3	
GBLW 435	Environmental Law & Policy	3	
OCEA 402	Estuaries & Coastal Processes	3	
	Humanities or SocSci Elective	3	
	MES Elective	3	
	Total Credits:	15	

Total Credits for Degree: 127

MES Electives

Marine Biology Minor cr.

ES 410 Marine Microbiology 3

ES 430 Environmntl. Impact Assessmen 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	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
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	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
NAUT 102	IntroVesselOps & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
OCEA 101	General Oceanography	4	
PE 103	Water Safety & Survival	1	
	Total Credits:	20	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	World Literature & Culture 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	World Literature & Culture II	3	
NAVG 212	Celestial Navigation	4	
PE 2xx	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	
MT 521	<i>or</i> Cadet Observer		

Total Lower Division Credits 88

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	
	Total Credits:	17	

	Spring Semester	cr.	
ES 305	Remote Sensing	3	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
NAUT 308	Nautical Operations: Safety	2	
NAVG 312	Electr Nav & Voyage Planning	4	
OCEA 415	Marine Biogeochemistry	3	
OCEA 416	Marine Biogeochemistry Lab	1	
	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 or SocSci 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 402	Estuaries & Coastal Processes	3	
	Humanities or SocSci Elective	3	
	MES Elective	3	
	Total Credits:	18	

Total Credits for Degree: 168

MES Electives

	Mete. & Ocea. Minor	cr.
METE 402	Tropical Cyclones	3
METE 411	Marine Climatology	3
METE 422	Weather Forecasting	3
OCEA 308	Dynamic Oceanography	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	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
LEAD 101	Leadership/Maritime Experience	1	
MATH 111	Applied Calc I (or MATH 101)	4	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies	2	
	Total Credits:	16	

	Spring Semester	cr.	
CHEM 123	General Chemistry II	3	
CHEM 124	General Chemistry II Laboratory	1	
ENGL 102	Freshman English II	3	
MATH 112	Applied Calc II (or MATH 102)	3	
OCEA 101	General Oceanography	4	
PE 100	Swimming	1	
	Total Credits:	15	

Sophomore Year

	Fall Semester	cr.	
BIO 201	General Biology	4	
HUMN 201	World Literature & Culture 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	World Literature & Culture II	3	
PE 2xx	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 63

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	
	MES Elective	3	
	Total Credits:	12	

	Spring Semester	cr.	
ES 305	Remote Sensing	3	
HIST 102	American Civilization II	3	
OCEA 415	Marine Biogeochemistry	3	
OCEA 416	Marine Biogeochemistry Lab	1	
	Free Elective	3	
	Science/Mathematics Elective	3	
	Total Credits:	16	

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 or SocSci Elective	3	
	Total Credits:	16	

	Spring Semester	cr.	
GBLW 435	Environmental Law & Policy	3	
METE 408	Dynamic Meteorology	3	
OCEA 402	Estuaries & Coastal Processes	3	
	Humanities or SocSci Elective	3	
	MES Elective	3	
	Total Credits:	15	

Total Credits for Degree: 128

MES Electives

Mete. & Ocea. Minor cr.

METE 402	Tropical Cyclones	3
METE 411	Marine Climatology	3
METE 422	Weather Forecasting	3
OCEA 308	Dynamic Oceanography	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	
NAUT 102	Intro Vessel Ops & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PE 103	Water Safety & Survival	1	
	Total Credits:	15	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
GBTT 251	Transportation Systems	3	
HIST 101	American Civilization I	3	
HUMN 201	World Literature & Culture 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.	
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	World Literature & Culture II	3	
NAVG 212	Celestial Navigation	4	
PE 2xx	Lifetime Sports	1	
	Total Credits:	20	

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

Total Lower Division Credits 80.5

**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 or SocSci elective	3	
	MT or GBAT or PS Elective	3	
	Total Credits:	19	

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

Total Credits for Degree: 158.5

**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	
PE 101	Lifetime Fitness & Conditioning	1	
PS 111	Professional Studies I	2	
PS 112	Basic Safety Training	2	
	Total Credits:	16	

	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	
GBUS 100	Intro to Business & Economics	3	
MATH 112	Applied Calculus II	3	
PE 103	Water Safety & Survival	1	
	Total Credits:	17	

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
CHEM 212	Materials Science I	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	World Literature & Culture 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	Ship Systems II	2	
HIST 102	American Civilization II	3	
GBTT 252	The Business of Shipping	3	
HUMN 202	World Literature & Culture II	3	
PHYS 214	General Physics II	4	
PHYS 216	General Physics Lab	0.5	
	Total Credits:	16.5	

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

Total Lower Division Credits 80

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

Junior Year

	Fall Semester	cr.	
ENGR 242	Statics	3	
ENGR 243	Transport Processes	3	
ENGR 290	Electrical Engineering I	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 2xx	Lifetime Sports	1	
	Total Credits:	18	

ENGR 530	Summer Sea Term III	5	
ENGR 516	Engine License Seminar	0	
PE 411	Medical Care Provider	1	

Senior Year

	Fall Semester	cr.	
GBTT 457	Port and Terminal Operations	3	
GBUS 300	International Business	3	
MT 408	International Safety Mgt	3	
	Humanities or SocSci elective	3	
	MT or GBAT or PS Elective	3	
	MT or GBAT or PS 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 or SocSci elective	3	
	MT or GBAT or PS Elective	3	
	Total Credits:	15	

Total Credits for Degree: 155

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

This page shows the common 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 251	Statistics	3	
MT 250	Ship Construction & Stability	2	
NAUT 102	Intro Vessel Ops & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PE 103	Water Safety & Survival	1	
	Total Credits:	17	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBTT 251	Transportation Systems	3	
HUMN 201	World Literature & Culture I	3	
METE 201	Meteorology for Mariners	3	
MT 435	Maritime Security	3	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	18.5	

	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	World Literature & Culture II	3	
NAUT 314	Rules of the Road	2	
NAVG 212	Celestial Navigation	4	
	Total Credits:	18	

* for students pursuing minor in
Ship Management

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

Total Lower Division Credits: 81.5

**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 251	Statistics	3	
MT 250	Ship Construction & Stability	2	
NAUT 102	Intro Vessel Ops & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PE 103	Water Safety & Survival	1	
	Total Credits:	17	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBT 251	Transportation Systems	3	
HUMN 201	World Literature & Culture I	3	
METE 201	Meteorology for Mariners	3	
MT 435	Maritime Security	3	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	18.5	

	Spring Semester	cr.	
GBAC 311	Financial Accounting	3	
GBEC 122	Microeconomics	3	
GBT 252	Business of Shipping	3	
HUMN 202	World Literature & Culture II	3	
NAUT 314	Rules of the Road	2	
NAVG 212	Celestial Navigation	4	
	Total Credits:	18	

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

Total Lower Division Credits: 81.5

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

Junior Year

	Fall Semester	cr.	
ENGL 452	Technical Writing	3	
GBMG 341	Organizational Management	3	
GBMG 345	Fundamentals of Marketing	3	
HIST 101	American Civilization I	3	
MT 321	Intro to Cargo Ops & Stability	3	
NAUT 315	Collision Avoidance	3	
PE 2xx	Lifetime Sports	1	
	Total Credits:	19	

	Spring Semester	cr.	
GBEC 424	International Econ. & Finance	3	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
MT 404	Environmental Management	3	
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.	
GBLW 431	Business Law	3	
GBUS 300	International Business	3	
MT 426	Maritime Communications	3	
NAUT 408	License Seminar	2	
NAVG 402	Advanced Marine Navigation	2	
	Humanities or SocSci elective	3	
	Total Credits:	16	

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

Total Credits for Degree: 158.5

**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	
MT 250	Ship Construction & Stability	2	
NAUT 102	Intro Vessel Ops & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PE 103	Water Safety & Survival	1	
MATH 251	Statistics	3	
	Total Credits:	17	

MT 510	Summer Sea Term I	6	
--------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBTT 251	Transportation Systems	3	
HUMN 201	World Literature & Culture I	3	
METE 201	Meteorology for Mariners	3	
MT 435	Maritime Security	3	
PHYS 211	General Physics I	3	
PHYS 213	General Physics I Lab	0.5	
	Total Credits:	18.5	

	Spring Semester	cr.	
GBAC 311	Financial Accounting	3	
GBEC 122	Microeconomics	3	
MT 212	Ship Management	3	
HUMN 202	World Literature & Culture II	3	
NAUT 314	Rules of the Road	2	
NAVG 212	Celestial Navigation	4	
	Total Credits:	18	

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

Total Lower Division Credits: 81.5

**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 315	Collision Avoidance	3	
PE 2xx	Lifetime Sports	1	
NAUT 308	Nautical Operations: Safety	2	
	Total Credits:	21	

	Spring Semester	cr.	
GBEC 424	International Economics and Fin	3	
HIST 102	American Civilization II	3	
MT 322	Marine Cargo Operations	3	
MT 404	Environmental Management	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.	
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 or SocSci 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 350	Haz Mat & Oil Spill Response	3	
GBLW 437	International Law	3	
MT 408	International Safety Management	3	
	Humanities or SocSci elective	3	
	Total Credits:	18	

Total Credits for Degree: 161.5

**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	
PE 100	Swimming	1	
	Total Credits:	16	

Sophomore Year

	Fall Semester	cr.	
GBEC 121	Macroeconomics	3	
GBT 251	Transportation Systems	3	
HIST 102	American Civilization II	3	
HUMN 201	World Literature & Culture 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	
GBT 252	Business of Shipping	3	
HUMN 202	World Literature & Culture II	3	
MATH 251	Statistics	3	
PE 2xx	Lifetime Sports	1	
	Total Credits:	16	

Total Lower Division Credits: 65.5

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

Junior Year

	Fall Semester	cr.	
BIO 201	General Biology <i>or</i>	4	
OCEA 101	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 or SocSci 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>		
GBMG 341	Organizational Management	3	
HUMN 490	Seminar in Maritime Studies	3	
HUMN 515	Humanities Internship II <i>or</i>	3	
	Free Elective		
	Humanities or SocSci elective	3	
	Track Option Course	3	
	Total Credits:	15	

Total Credits for Degree: 126.5

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 425	History of Technology	3	
ENGL 450	Speech	3		HIST 436	Sports and American Society	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 421	Vietnam and America	3	FLC	SPAN 102	Spanish II	3	FLC
HIST 422	Turning Points in U.S. History	3		SS 400	Fund. of International Relations	3	

**Associate in Applied Science
Marine Technology: Small Vessel Operations
Assistant Engineer Limited License**

Freshman Year

	Fall Semester	cr.	
CS 101	Computer Laboratory	1	
ENGL 101	Freshman English I	3	
ENGR 503	Manufacturing Proc. I	1	
GBUS 100	Intro Business & Economics	3	
LEAD 101	Leadership and the Maritime Ex	1	
MATH 90	Intro to College Math	4	
PE 103	Water Safety & Survival	1	
PS 112	Basic Safety Training	2	
	Total Credits:	16	

	Spring Semester	cr.	
ENGL 102	Freshman English II	3	
ENGR 100	Engineering Graphics	1	
ENGR 504	Manufacturing Processes II	1	
ENGR 540	Introduction to Ship Systems	3	
MATH 251	Statistics	3	
PS 111	Professional Studies	2	
	Science Elective *	3	
	Total Credits:	16	

* CHEM 100 or PHYS 211 with PHYS 213 (lab)

ENGR 510	Summer Sea Term I	6	
----------	-------------------	---	--

Sophomore Year

	Fall Semester	cr.	
ENGR 541	Ships Systems I	2	
ENGR 561	Small Vessels Engineer I	4	
HIST 101	American Civilization I	3	
MT 250	Ship Construction & Stability	2	
NAUT 308	Nautical Ops: Safety	2	
PE 101	Lifetime Fitness and Conditioning	1	
PS 410	The Business of Towing	3	
	Total Credits:	17	

	Spring Semester	cr.	
ENGR 542	Ship Systems II	2	
ENGR 562	Small Vessels Engineer II	4	
MT 322	Marine Cargo Operations	3	
MTEO 201	Small Vessel Resource Mgmt	3	
PE 411	Medical Care Provider	1	
	Free Elective	3	
	Total Credits:	16	

MTEO 521	Cadet Obs Assist Engineer I	2	
MTEO 522	Cadet Obs Assist Engineer II	2	
MTEO 523	Cadet Obs Assist Engineer III	2	

Total Credits for Degree 77

**Associate in Applied Science
Marine Technology: Small Vessel Operations
Deck Limited License**

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 103	Water Safety & Survival	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	
NAUT 102	Intro Vessel Ops & Seamanship	1	
NAVG 112	Terrestrial Navigation	4	
PE 101	Lifetime Fitness & Conditioning	1	
	Total Credits:	17	

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

* MT 520 Summer Sea Term II 6
may be substituted for MTDO 524. Note
that MT 520 has prerequisites of MT 510,
METE 201, NAVG 212.

Sophomore Year

	Fall Semester	cr.	
METE 201	Meteorology for Mariners	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	
PS 410	The Business of Towing	3	
	Total Credits:	16	

	Spring Semester	cr.	
MT 322	Marine Cargo Operations	3	
NAUT 416	Bridge Watchstanding	3	
NAVG 312	Electr Nav & Voyage Planning	4	
PE 411	Medical Care Provider	1	
PS 411	Towing Operations	3	
	Total Credits:	14	

with Ocean Endorsement Option:

MT 426	Maritime Communications	3	
NAVG 212	Celestial Navigation	4	
	Total Credits:	21	

PS 210	ECDIS – Limited Deck License	1	
MTDO 525	Cadet Observer Lim Tonnage II	4	

Total Credits for Degree 75
with Ocean Endorsement 82