

Marine Transportation Department Marine Operations Degree – Engine License

Upon completion of a Bachelor program in **Marine Operations –Engine License** the student will:

Objective 1: Pass the US Coast Guard Third Assistant Engineer.

Objective 2: Be able to stand an underway watch on a commercial vessel and assume all the duties of a Third Assistant Engineer in international or domestic service

Objective 3: Have a thorough understanding of power plants, engineering principles, and management practices

Have a thorough understanding of the marine transportation business and its place in global commerce with a focus on fleet management practices.

Objective 4: Understand the marine transportation industry and relevant international standards of operation.

Objective 5: Through the regimental experience and summer sea terms graduates will have developed leadership and organizational skills to assume positions of responsibility in their careers after graduation

Grid Matrix

- **Major (4):** Topics are fully introduced, developed, and reinforced throughout the course in course lectures, labs, homework assignments, tests, exams, projects; an “application knowledge”
- **Moderate (2):** Topics are introduced and further developed and reinforced in course lectures, labs, assignments, tests, etc; a “working knowledge”
- **Minor (1):** Topics introduced in course lectures, labs, homework, assignments, etc; a “talking knowledge” or “awareness”

- **(0):** Does not relate

License sequence

Course/ Number	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5
PS 112 Basic Safety Training	4	4			
ENGR 540 Intro to Ship Systems	4	4	4		
ENGR 100 Engineering Graphics	2	2	2		
PE 100 Swimming and Water Safety	2	2	2		
ENGR 102 Intro to Engineering	4	4	4		
ENGR 510 Summer Sea Term I				4	4
ENGR 503 Manufacturing Process I	4	4	4		
ENGR 541 Ship Systems I	4	4	4		
ENGR 504 Manufacturing Process II	4	4	4		
ENGR 542 Intro to Ship Systems II	4	4	4		
ENGR 520 Summer Sea Term II OR ENGR 521 Cadet Observer				4	4

PE 411 Medical Care Provider	2	2			
ENGR 290 Electrical Engineering I	4	4	4		
ENGR 243 Transport Processes	4	4	4		
ENGR 543 Ship Systems III	4	4	4		
ENGR 380 Electrical Engineering II	4	4	4		
ENGR 544 Ship Systems IV	4	4	4		
NAUT 308 Nautical Operations: Safety	4				
ENGR 530 Summer Sea Term III				4	4
ENGR 516 Engine License Seminar	4				
ENGR 446 Marine Engine Theory & Appl.	4	4			

Academic Degree Sequence

Course Number	Course Name	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5
CS100	Intro to Business Computing				4	
CS 101	Computer Laboratory				4	
ENGL 101	Freshman English I				2	
LEAD 101	Leadership/Maritime Experience				2	
Math 111	Applied Calculus I				4	
PE 101	Lifetime Fitness & Conditioning				2	
PS 111	Professional Studies I					
CHEM 100	Introductory Chemistry	4	4	4		
ENGL 102	Freshman English II				2	
GBUS 100	Intro to Business & Economics				2	
MATH 112	Applied Calculus II					
CHEM 212	Materials Science	2			2	
GBTT 251	Transportation Systems	2			2	
HIST 101	American Civilization I				2	
HUMN 201	World Literature & Culture I				2	
PHYS 211	General Physics I	2	2		2	
PHYS 213	General Physics I Lab	2	2		2	
HIST 102	American Civilization II				2	
GBTT 252	The Business of		2	2	4	

	Shipping					
HUMN 202	World Literature & Culture II				2	
PHYS 214	General Physics II		2		2	
PHYS 216	General Physics Lab		2		2	
ENGR 242	Statics	2	2			
GBMG 341	Organizational Management				4	
MT 212	Ship Management				4	
ENGR 371	Applied Naval Architecture	2	2	2		
GBAC 311	Financial Accounting				4	
MATH 251	Statistics				2	
PE 20x	Lifetime Sports				2	
GBT 457	Port and Terminal Operations				4	
GBUS 300	International Business				4	
MT 408	International Safety Mgt				4	
	General Education: Humanities				2	
	MT/GBAT Elective				2	
	MT/GBAT Elective				2	
GBLW 435	Environmental Law and Policy				4	
MT 435	Maritime Security				4	
	General Education: The Arts				2	
	MT/GBAT Elective				2	

