

Please inform the Registrar's Office if you choose an alternate option.
Otherwise your Academic Advisement Report will be incorrect.

STUDENTS ENTERING IN 2025
MECHANICAL ENGINEERING MAJOR
U.S. COAST GUARD THIRD ASSISTANT ENGINEER LICENSE OPTION
DIVISIONS 1&2
CURRICULUM ROADMAP

11/06/24
Subject to Change

Total Units: 171

FALL 2025			SPRING 2026			SUMMER SEA TERM 2026		
CHE 110	General Chemistry (Area 5A-Lower Div)	3.0	Arts Elective (Area 3A-Lower Div)	3.0	CRU 150 Sea Training I (Engine)▶	8.0		
CHE 110L	General Chemistry Lab (Area 5C-Lower Div)	1.0	DL 105	Marine Survival▶	1.0			Total 8.0
EGL 100	English Composition (Area 1A) "G4"	3.0	DL 105L	Marine Survival Lab▶	1.0			
ENG 110	Introduction to Engineering and Technology*	1.0	DL 105X	USCG Lifeboatman's Exam	0.0			
ENG 112	Intro to Technical Communication* (Area 1C★) "G4"	2.0	EGL 220	Critical Thinking	3.0			
EPO 110	Plant Operations I▶	1.0		Critical Thinking Elective (Area 1B) "G4"				
EPO 125	Introduction to Marine Engineering	3.0	FF 100	Basic Marine Firefighting▶	0.0	English Communication		
EPO 125L	Introduction to Marine Engineering Lab	1.0	ME 220	Computer Aided Design▶*	2.0			
EPO 213	Welding Lab▶	1.0	MTH 211	Calculus II (Area 2-Lower Div)	4.0	Mathematical Concepts and Quantitative Reasoning		
MTH 210	Calculus I (Area 2-Lower Div) "G4"	4.0	NAU 104	Shipboard Security and Responsibility▶	1.0			
PE 101	Swim Competency Exam	0.0	PHY 200	Engineering Physics I (Area 5A-Lower Div)	3.0	Arts and Humanities		
PE 102	Beginning/Intermediate Swimming	(0.5)	PHY 200L	Engineering Physics I Lab (Area 5C-Lower Div)	1.0			
Total		20.0	Total		19.0			
FALL 2026			SPRING 2027			SUMMER SEA TERM 2027		
ENG 210	Engineering Computer Programming	2.0	Humanities Elective (Area 3B-Lower Div)	3.0	CRU 250 Sea Training II	8.0		
EPO 210	Plant Operations II▶	1.0	ENG 250	Electrical Circuits and Electronics▶*	3.0			Total 8.0
EPO 215	Manufacturing Processes I▶	1.0	ENG 250L	Electrical Circuits and Electronics Lab▶*	1.0			
EPO 220	Diesel Engineering I	1.0	EPO 214	Boilers▶	3.0			
EPO 220L	Diesel Engineering I Lab	1.0	EPO 230	Steam Plant System Operations▶	1.0	Social and Behavioral Sciences		
ME 230	Engineering Materials*	3.0	ME 240	Engineering Thermodynamics*	3.0			
ME 232	Engineering Statics*	3.0	ME 330	Engineering Dynamics*	3.0	Physical and Biological Sciences		
MTH 212	Calculus III (Area 2-Lower Div)	4.0	MTH 215	Differential Equations (Area 2-Lower Div)	3.0			
PHY 205	Engineering Physics II (Area 5A-Lower Div)	3.0				Ethnic Studies		
PHY 205L	Engineering Physics II Lab	1.0	Total		20.0			
Total		20.0						
FALL 2027			SPRING 2028			SUMMER SEA TERM 2028		
Life Science Elective (Area 5B-Lower Div)	3.0		CSU Graduate Writing Assessment Requirement (GWAR) Elective♦	(3.0)	CRU 350 Sea Training III (Engine)▶	8.0		
EPO 235	Steam Plant Watch Team Management▶	1.0	EPO 310	Plant Operations III▶	1.0			Total 8.0
EPO 312	Turbines▶	3.0	EPO 343	Refrigeration & A/C▶	1.0			
EPO 322	Diesel Engineering II/Simulator	1.0	ME 344	Heat Transfer*	3.0			
EPO 322L	Diesel Engineering II/Simulator Lab▶	1.0	ME 392	Mechanical Design*	3.0			
ME 332	Mechanics of Materials*	3.0	ME 429	Manufacturing Processes Lab*	1.0			
ME 340	Engineering Fluid Mechanics*	3.0	ME 436	Mechatronic System Design▶*	2.0			
ME 360	Instrumentation and Measurement Systems*	2.0	ME 436L	Mechatronic System Design Lab▶*	1.0			
ME 360L	Instr. and Measurement Systems Lab*	1.0	ME 490	Engineering Design Process* (Area 1C★) "G4"	3.0			
Total		18.0	Total		15.0			
FALL 2028			SPRING 2029					
HIS 100	U.S. History (to 1877) OR HIS 101 U.S. History (from 1877)	3.0	Arts/Humanities Upper Div Elective (Area 3-Upper Div)	3.0				
American Institutions I Elective (Area 4-Lower Div) OR (Area 6)	3.0		ENG 310	Engineering Ethics (Area 4-Upper Div)	3.0			
Social Science Elective (Area 4-Lower Div)	3.0		EPO 217	Shipboard Medical▶	1.0			
ENG 430	Naval Architecture▶*	3.0	FF 300	Advanced Marine Firefighting▶	0.0			
ME 350	Electromechanical Machinery*	3.0	GOV 200	American Government	3.0			
ME 350L	Electromechanical Machinery Lab▶*	1.0		American Institutions II Elective (Area 4-Lower Div)				
ME 462	Experimental Methods in ME*	2.0	ME 460	Automatic Feedback Control▶*	3.0			
ME 462L	Experimental Methods in ME Lab*	1.0	ME 494	Project Design II*	2.0			
ME 492	Project Design I*	2.0	ME 494L	Project Design II Lab*	1.0			
ME 492L	Project Design I Lab*	1.0	Total		16.0			
Total		19.0						

**THIRD ASSISTANT ENGINEER/OICEW LICENSE
REQUIRED FOR GRADUATION**

"G4" "Golden 4" Courses (Must receive a "C-" or higher)

★ GE Area 1C Sequence of Two Courses

♦ The CSU Graduate Writing Assessment Requirement (GWAR) may be met by passing one of the following courses: EGL 300 Advanced Writing or EGL 302 Nonfiction Writing. (Must receive a "C-" or higher)

▶ STCW Courses (Must receive a "C-" or higher, or "CR")

* Courses in Major (CGPA = 2.0 is required)