

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

**STUDENTS ENTERING IN 2024**  
**MECHANICAL ENGINEERING MAJOR**  
**U.S. COAST GUARD THIRD ASSISTANT ENGINEER LICENSE OPTION**  
**DIVISIONS 3&4**  
**CURRICULUM ROADMAP**

05/09/24  
 Subject to Change

**Total Units: 172**

<u>FALL 2024</u>	<u>SPRING 2025</u>	<u>SUMMER SEA TERM 2025</u>
Arts Elective (Area C1-Lower Div) 3.0	DL 105 Marine Survival▶ 1.0	CRU 150 Sea Training I (Engine)▶ 8.0
CHE 110 General Chemistry (Area B1) 3.0	DL 105L Marine Survival Lab▶ 1.0	<b>Total 8.0</b>
CHE 110L General Chemistry Lab (Area B3) 1.0	DL 105X USCG Lifeboatman's Exam 0.0	
EGL 100 English Composition (Area A2) "G4" 3.0	EGL 220 Critical Thinking 3.0	
ENG 110 Introduction to Engineering and Technology* 1.0	Critical Thinking Elective (Area A3) "G4" 1.0	
ENG 112 Intro to Technical Communication* (Area A1★) "G4" 1.0	EPO 110 Plant Operations I▶ 1.0	
FF 100 Basic Marine Firefighting▶ 0.0	EPO 125 Introduction to Marine Engineering 3.0	
ME 220 Computer Aided Design▶* 2.0	EPO 125L Introduction to Marine Engineering Lab 1.0	
MTH 210 Calculus I (Area B4) "G4" 4.0	EPO 213 Welding Lab▶ 1.0	
PE 101 Swim Competency Exam 0.0	MTH 211 Calculus II (Area B4) 4.0	
PE 102 Beginning/Intermediate Swimming (0.5)	NAU 104 Shipboard Security and Responsibility▶ 1.0	
<b>Total 18.0</b>	PHY 200 Engineering Physics I (Area B1) 3.0	
	PHY 200L Engineering Physics I Lab (Area B3) 1.0	
	<b>Total 20.0</b>	
 <u>FALL 2025</u>	 <u>SPRING 2026</u>	 <u>SUMMER SEA TERM 2026</u>
ENG 210 Engineering Computer Programming 2.0	Humanities Elective (Area C2-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	<b>Total 8.0</b>
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	
ME 230 Engineering Materials* 3.0	ME 240 Engineering Thermodynamics* 3.0	
ME 232 Engineering Statics* 3.0	ME 330 Engineering Dynamics* 3.0	
MTH 212 Calculus III (Area B4) 4.0	MTH 215 Differential Equations (Area B4) 3.0	
PHY 205 Engineering Physics II (Area B1) 3.0	<b>Total 20.0</b>	
PHY 205L Engineering Physics II Lab 1.0		
<b>Total 20.0</b>		
 <u>FALL 2026</u>	 <u>SPRING 2027</u>	 <u>SUMMER SEA TERM 2027</u>
Life Science Elective (Area B2) 3.0	Arts <u>OR</u> Humanities Elective (Area C-Lower Div) 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	<b>Total 8.0</b>
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 A1★) "G4" 3.0	
<b>Total 18.0</b>	<b>Total 18.0</b>	
 <u>FALL 2027</u>	 <u>SPRING 2028</u>	
American Institutions I Elective (Area D-Lower Div) <u>OR</u> (Area F) 3.0	Arts/Humanities Upper Div Elective (Area C-Upper Div) 3.0	
Social Science Elective (Area D-Lower Div) 3.0	CSU Graduate Writing Assessment Requirement (GWAR) Elective♦ (3.0)	
ENG 430 Naval Architecture▶* 3.0	ENG 310 Engineering Ethics (Area D-Upper Div) 3.0	
ME 350 Electromechanical Machinery* 3.0	EPO 217 Shipboard Medical▶ 1.0	
ME 350L Electromechanical Machinery Lab▶* 1.0	FF 300 Advanced Marine Firefighting▶ 0.0	
ME 462 Experimental Methods in ME* (Area A1★) "G4" 1.0	GOV 200 American Government 3.0	
ME 462L Experimental Methods in ME Lab* 1.0	American Institutions II Elective (Area D-Lower Div) 1.0	
ME 492 Project Design I* 2.0	ME 460 Automatic Feedback Control▶* 3.0	
ME 492L Project Design I Lab* 1.0	ME 494 Project Design II* 2.0	
<b>Total 18.0</b>	ME 494L Project Design II Lab* 1.0	
	<b>Total 16.0</b>	

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

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

★ GE Area A1 Sequence of Three 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)