

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

STUDENTS ENTERING IN 2022
MECHANICAL ENGINEERING MAJOR
U.S. COAST GUARD THIRD ASSISTANT ENGINEER LICENSE OPTION
DIVISIONS 1&2
CURRICULUM ROADMAP

06/20/22
Subject to Change

Total Units: 172

<u>FALL 2022</u>	<u>SPRING 2023</u>	<u>SUMMER CRUISE 2023</u>	
CHE 110 General Chemistry (Area B1)	3.0 Arts Elective (Area C1-Lower Div)	3.0 CRU 150 Sea Training I (Engine)▶	8.0
CHE 110L General Chemistry Lab (Area B3)	1.0 DL 105 Marine Survival▶	1.0 EPO 220 Diesel Engineering I	2.0
EGL 100 English Composition (Area A2) "G4"	3.0 DL 105L Marine Survival Lab▶		Total 10.0
ENG 110 Introduction to Engineering and Technology*	1.0 DL 105X USCG Lifeboatman's Exam		0.0
EPO 110 Plant Operations I▶	1.0 EGL 220 Critical Thinking		3.0
EPO 125 Introduction to Marine Engineering	3.0 Critical Thinking Elective (Area A3) "G4"		
EPO 125L Introduction to Marine Engineering Lab	1.0 ENG 112 Intro to Technical Communication* (Area A1★) "G4"	1.0	
EPO 213 Welding Lab▶	1.0 FF 100 Basic Marine Firefighting▶	0.0	
MTH 210 Calculus I (Area B4) "G4"	4.0 ME 220 Computer Aided Design▶*	2.0	
PE 101 Swim Competency Exam	0.0 MTH 211 Calculus II (Area B4)	4.0	
	NAU 104 Shipboard Security and Responsibility▶	1.0	
Total 18.0	PHY 200 Engineering Physics I (Area B1)	3.0	
	PHY 200L Engineering Physics I Lab (Area B3)	1.0	
	Total 20.0		
<u>FALL 2023</u>	<u>SPRING 2024</u>	<u>SUMMER CRUISE 2024</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▶*		Total 8.0
EPO 215 Manufacturing Processes I▶	1.0 ENG 250L Electrical Circuits and Electronics Lab▶*	1.0	
ME 230 Engineering Materials*	3.0 EPO 214 Boilers▶	3.0	
ME 232 Engineering Statics*	3.0 EPO 230 Steam Plant System Operations▶	1.0	
MTH 212 Calculus III (Area B4)	4.0 ME 240 Engineering Thermodynamics*	3.0	
PHY 205 Engineering Physics II (Area B1)	4.0 ME 330 Engineering Dynamics*	3.0	
	4.0 MTH 215 Differential Equations (Area B4)	3.0	
Total 18.0	Total 20.0		
<u>FALL 2024</u>	<u>SPRING 2025</u>	<u>SUMMER CRUISE 2025</u>	
Life Science Elective (Area B2)	3.0 Arts OR 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▶		Total 8.0
EPO 312 Turbines▶	3.0 EPO 343 Refrigeration & A/C▶	1.0	
EPO 322 Diesel Engineering II/Simulator	1.0 FF 300 Advanced Marine Firefighting▶	0.0	
EPO 322L Diesel Engineering II/Simulator Lab▶	1.0 ME 344 Heat Transfer*	3.0	
ME 332 Mechanics of Materials*	3.0 ME 392 Mechanical Design*	3.0	
ME 340 Engineering Fluid Mechanics*	3.0 ME 429 Manufacturing Processes Lab*	1.0	
ME 360 Instrumentation and Measurement Systems*	2.0 ME 436 Mechatronic System Design▶*	2.0	
ME 360L Instr. and Measurement Systems Lab*	1.0 ME 436L Mechatronic System Design Lab▶*	1.0	
	1.0 ME 490 Engineering Design Process* (Area A1★) "G4"	3.0	
Total 18.0	Total 18.0		
<u>FALL 2025</u>	<u>SPRING 2026</u>		
American Institutions I Elective (Area D-Lower Div) OR (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 GOV 200 American Government	3.0	
ME 462 Experimental Methods in ME* (Area A1★) "G4"	1.0 American Institutions II Elective (Area D-Lower Div)		
ME 462L Experimental Methods in ME Lab*	1.0 ME 460 Automatic Feedback Control▶*	3.0	
ME 492 Project Design I*	2.0 ME 494 Project Design II*	2.0	
ME 492L Project Design I Lab*	1.0 ME 494L Project Design II Lab*	1.0	
Total 18.0	Total 16.0		

**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)