U.S. COAST GUARD THIRD ASSISTANT ENGINEER LICENSE OPTION
DIVISIONS 1&2
CURRICULUM ROADMAP

Total Units: 172

FALL 2021

CHE	110	General Chemistry (Area B1)	3.0
CHE	110L	General Chemistry Lab (Area B3)	1.0
EGL	100	English Composition (Area A2) **"G4"**	3.0
ENG	110	Introduction to Engineering and Technology✱	1.0
EPO	110	Plant Operations I▶	1.0
EPO	125	Introduction to Marine Engineering	3.0
EPO	125L	Introduction to Marine Engineering Lab	1.0
EPO	213	Welding Lab▶	1.0
MTH	210	Calculus I (Area B4) **"G4"**	4.0
PE	101	Swim Competency Exam	0.0
		Total	**18.0**

SPRING 2022

		Arts Elective (Area C1-Lower Div)	3.0
DL	105	Marine Survival▶	1.0
DL	105L	Marine Survival Lab▶	1.0
DL	105X	USCG Lifeboatman's Exam	0.0
EGL	220	Critical Thinking	3.0
		Critical Thinking Elective (Area A3) **"G4"**	
ENG	112	Intro to Technical Communication✱	1.0
		(Area A1✿) **"G4"**	
FF	100	Basic Marine Firefighting▶	0.0
ME	220	Computer Aided Design▶✱	2.0
MTH	211	Calculus II (Area B4)	4.0
NAU	104	Shipboard Security and Responsibility▶	1.0
PHY	200	Engineering Physics I (Area B1)	3.0
PHY	200L	Engineering Physics I Lab (Area B3)	1.0
		Total	**20.0**

SUMMER CRUISE 2022

CRU	150 Sea Training I (Engine)▶	8.0
EPO	220 Diesel Engineering I	2.0
	Total	**10.0**

FALL 2022

ENG	210	Engineering Computer Programming	2.0
EPO	210	Plant Operations II▶	1.0
EPO	215	Manufacturing Processes I▶	1.0
ME	230	Engineering Materials✱	3.0
ME	232	Engineering Statics✱	3.0
MTH	212	Calculus III (Area B4)	4.0
PHY	205	Engineering Physics II (Area B1)	4.0
		Total	**18.0**

SPRING 2023

		Humanities Elective (Area C2-Lower Div)	3.0
ENG	250	Electrical Circuits and Electronics▶✱	3.0
ENG	250L	Electrical Circuits and Electronics Lab▶✱	1.0
EPO	214	Boilers▶	3.0
EPO	230	Steam Plant System Operations▶	1.0
ME	240	Engineering Thermodynamics✱	3.0
ME	330	Engineering Dynamics✱	3.0
MTH	215	Differential Equations (Area B4)	3.0
		Total	**20.0**

SUMMER CRUISE 2023

CRU	250 Sea Training II	8.0
	Total	**8.0**

FALL 2023

		Life Science Elective (Area B2)	3.0
EPO	235	Steam Plant Watch Team Management▶	1.0
EPO	312	Turbines▶	3.0
EPO	322	Diesel Engineering II/Simulator▶	1.0
EPO	322L	Diesel Engineering II/Simulator Lab▶	1.0
ME	332	Mechanics of Materials✱	3.0
ME	340	Engineering Fluid Mechanics✱	3.0
ME	360	Instrumentation and Measurement Systems✱	2.0
ME	360L	Instr. and Measurement Systems Lab✱	1.0
		Total	**18.0**

SPRING 2024

		Arts **OR** Humanities Elective (Area C-Lower Div)	3.0
EPO	310	Plant Operations III▶	1.0
EPO	343	Refrigeration & A/C▶	1.0
FF	300	Advanced Marine Firefighting▶	0.0
ME	344	Heat Transfer✱	3.0
ME	392	Mechanical Design✱	3.0
ME	429	Manufacturing Processes Lab✱	1.0
ME	436	Mechatronic System Design▶✱	2.0
ME	436L	Mechatronic System Design Lab▶✱	1.0
ME	490	Engineering Design Process✱	3.0
		(Area A1✿) **"G4"**	
		Total	**18.0**

SUMMER CRUISE 2024

CRU	350 Sea Training III (Engine)▶	8.0
	Total	**8.0**

FALL 2024

		American Institutions I Elective (Area D-Lower Div) **OR** (Area F)	3.0
		Social Science Elective (Area D-Lower Div)	3.0
ENG	430	Naval Architecture▶✱	3.0
ME	350	Electromechanical Machinery✱	3.0
ME	350L	Electromechanical Machinery Lab▶✱	1.0
ME	462	Experimental Methods in ME✱	1.0
		(Area A1✿) **"G4"**	
ME	462L	Experimental Methods in ME Lab✱	1.0
ME	492	Project Design I✱	2.0
ME	492L	Project Design I Lab✱	1.0
		Total	**18.0**

SPRING 2025

		Arts/Humanities Upper Div Elective (Area C-Upper Div)	3.0
EGL	300	Advanced Writing◆	(3.0)
ENG	310	Engineering Ethics (Area D-Upper Div)	3.0
EPO	217	Shipboard Medical▶	1.0
GOV	200	American Government	3.0
		American Institutions II Elective (Area D-Lower Div)	
ME	460	Automatic Feedback Control▶✱	3.0
ME	494	Project Design II✱	2.0
ME	494L	Project Design II Lab✱	1.0
		Total	**16.0**

THIRD ASSISTANT ENGINEER/OICEW LICENSE REQUIRED FOR GRADUATION

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam (GWE) or passing EGL 300 Advanced Writing.

◆ Meets CSU Graduate Writing Assessment Requirement (GWAR). (Must receive a "C-" or higher)
"G4" "Golden 4" Courses (Must receive a "C-" or higher)
✿ GE Area A1 Sequence of Three Courses
▶ STCW Courses (Must receive a "C-" or higher, or "CR")
✱ Courses in Major (CGPA = 2.0 is required)