

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

**STUDENTS ENTERING IN 2018**  
**MECHANICAL ENGINEERING MAJOR**  
**THIRD ASSISTANT ENGINEER'S LICENSE OPTION**  
**DIVISIONS 1&2**  
**CURRICULUM**

**REVISED 10/04/21**  
**Subject to Change**

**Total Units: 162**

**THIRD ASSISTANT ENGINEER'S LICENSE COURSES ARE BOLDED. ADDITIONAL UNITS MUST BE ADDED TO TOTAL FOR EACH SEMESTER.**

<u>FALL 2018</u>	<u>SPRING 2019</u>	<u>SUMMER CRUISE 2019</u>
CHE 110 General Chemistry (Area B1) 3.0	Humanities Elective (Area C2-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) 3.0	DL 105L Marine Survival Lab▶ 1.0	<b>Total 10.0</b>
EGL 120 Technical Communication* (Area A1) 3.0	DL 105X USCG Lifeboatman's Exam 0.0	
ENG 110 Introduction to Engineering and Technology* 1.0	EGL 220 Critical Thinking 3.0	
EPO 110 Plant Operations I▶ 1.0	[Critical Thinking Elective] (Area A3) 3.0	
EPO 125 Introduction to Marine Engineering 3.0	MTH 211 Calculus II (Area B4) 4.0	
EPO 213 Welding Lab▶ 1.0	NAU 104 Shipboard Security and Responsibility▶ 1.0	
MTH 210 Calculus I (Area B4) 4.0	PHY 200 Engineering Physics I (Area B1) 3.0	
PE 101 Swim Competency Exam 0.0	PHY 200L Engineering Physics I Lab (Area B3) 1.0	
PE 102 Beginning/Intermediate Swimming (0.5)	<b>Total 17.0</b>	
<b>Total 20.0</b>		
<u>FALL 2019</u>	<u>SPRING 2020</u>	<u>SUMMER CRUISE 2020</u>
ENG 210 Engineering Computer Programming 2.0	ENG 250 Electrical Circuits and Electronics▶* 3.0	CRU 250 Sea Training II 8.0
<b>EPO 210 Plant Operations II▶ 1.0</b>	ENG 250L Electrical Circuits and Electronics Lab▶* 1.0	<b>Total 8.0</b>
EPO 215 Manufacturing Processes I▶ 1.0	<b>EPO 214 Boilers▶ 3.0</b>	
ME 220 Computer Aided Engineering▶* 2.0	<b>EPO 230 Steam Plant System Operations▶ 1.0</b>	
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	ME 332 Mechanics of Materials* 3.0	
PHY 205 Engineering Physics II (Area B1) 4.0	MTH 215 Differential Equations (Area B4) 4.0	
<b>Total 19.0</b>	<b>Total 17.0</b>	
<u>FALL 2020</u>	<u>SPRING 2021</u>	<u>SUMMER CRUISE 2021</u>
Life Science Elective (Area B2) 3.0	EGL 300 Advanced Writing (3.0)	CRU 350 Sea Training III (Engine)▶ 8.0
<b>EPO 235 Steam Plant Watch Team Management▶ 1.0</b>	<b>EPO 310 Plant Operations III▶ 1.0</b>	<b>Total 8.0</b>
<b>EPO 312 Turbines▶ 3.0</b>	<b>EPO 343 Refrigeration &amp; A/C▶ 1.0</b>	
<b>EPO 322 Diesel Engineering II/Simulator 1.0</b>	<b>FF 200 Basic/Advanced Marine Firefighting▶ 0.0</b>	
<b>EPO 322L Diesel Engineering II/Simulator Lab▶ 1.0</b>	ME 339 Material/Mechanical Lab* 2.0	
ME 340 Engineering Fluid Mechanics* 3.0	ME 344 Heat Transfer* 3.0	
ME 350 Electromechanical Machinery* 3.0	ME 392 Mechanical Design* 3.0	
ME 350L Electromechanical Machinery Lab▶* 1.0	ME 460 Automatic Feedback Control▶* 2.0	
ME 360 Instrumentation and Measurement Systems* 2.0	ME 460L Automatic Feedback Control Lab* 1.0	
ME 360L Instr. and Measurement Systems Lab* 1.0	ME 490 Engineering Design Process* 3.0	
<b>Total 13.0</b>	STEM 1 Stem Course (See Box)* 3.0	
	<b>Total 17.0</b>	
<u>FALL 2021</u>	<u>SPRING 2022</u>	
American Institutions I Elective (Area D-Lower Div) 3.0	Humanities Elective (Area C-Upper Div) 3.0	
Social Science Elective (Area D-Lower Div) 3.0	ENG 310 Engineering Ethics (Area D-Upper Div) 3.0	
<b>ENG 430 Naval Architecture▶* 3.0</b>	<b>EPO 217 Shipboard Medical▶ 1.0</b>	
ME 349 Fluid/Thermal Lab* 2.0	GOV 200 American Government 3.0	
ME 394 Fluid/Thermal Design* 3.0	[American Institutions II Elective] (Area D-Lower Div) 3.0	
ME 492 Project Design I* 2.0	ME 429 Manufacturing Processes Lab* 1.0	
ME 492L Project Design I Lab* 1.0	ME 494 Project Design II* 2.0	
STEM 2 Stem Course (See Box)* 3.0	ME 494L Project Design II Lab* 1.0	
<b>Total 17.0</b>	STEM 3 Stem Course (See Box)* 3.0	
	<b>Total 16.0</b>	

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

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

▶ STCW Courses (Must receive a "C-" or higher, or "CR")  
 \* Courses in Major (CGPA = 2.0 is required)

**STEM COURSES**

**Energy Design Stem**  
 1 - ME 440 Advanced Fluids & Thermodynamics (Spring 2021)\*  
 2 - ME 442 Heating, Ventilation and A/C Design (Fall 2021)\*  
 3 - ME 444 Energy Systems Design (Spring 2022)\*

**Mechanical Design Stem**  
 1 - ME 436 Mechatronic System Design (Spring 2021)\*  
 2 - ME 430 Mechanical Vibrations (Fall 2021)\*  
 3 - ME 432 Machinery Design (Spring 2022)\*