

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**  
**GENERAL OPTION**  
**DIVISIONS 3&4**  
**CURRICULUM ROADMAP**

**06/20/22**  
**Subject to Change**

**Total Units: 147**

<u>FALL 2022</u>	<u>SPRING 2023</u>	<u>SUMMER CRUISE 2023</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	EPO 220 Diesel Engineering I 2.0
CHE 110L General Chemistry Lab (Area B3) 1.0	DL 105X USCG Lifeboatman's Exam 0.0	<b>Total 10.0</b>
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 3.0	
FF 100 Basic Marine Firefighting 0.0	EPO 125 Introduction to Marine Engineering 1.0	
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 4.0	
PE 101 Swim Competency Exam 0.0	MTH 211 Calculus II (Area B4) 1.0	
<b>Total 18.0</b>	NAU 104 Shipboard Security and Responsibility 3.0	
	PHY 200 Engineering Physics I (Area B1) 1.0	
	PHY 200L Engineering Physics I Lab (Area B3) 1.0	
	<b>Total 20.0</b>	
<u>FALL 2023</u>	<u>SPRING 2024</u>	<u>SUMMER CO-OP 2024</u>
ENG 210 Engineering Computer Programming 2.0	Humanities Elective (Area C2-Lower Div) 3.0	CEP 250 ME Co-Op I 3.0
EPO 215 Manufacturing Processes I 1.0	ENG 250 Electrical Circuits and Electronics* 3.0	<b>Total 3.0</b>
ME 230 Engineering Materials* 3.0	ENG 250L Electrical Circuits and Electronics Lab* 1.0	
ME 232 Engineering Statics* 3.0	ME 240 Engineering Thermodynamics* 3.0	
MTH 212 Calculus III (Area B4) 4.0	ME 330 Engineering Dynamics* 3.0	
PHY 205 Engineering Physics II (Area B1) 4.0	MTH 215 Differential Equations (Area B4) 3.0	
<b>Total 17.0</b>	<b>Total 16.0</b>	
<u>FALL 2024</u>	<u>SPRING 2025</u>	<u>SUMMER CO-OP 2025</u>
Arts <u>OR</u> Humanities Elective (Area C-Lower Div) 3.0	ME 344 Heat Transfer* 3.0	CEP 350 ME Co-Op II 3.0
Life Science Elective (Area B2) 3.0	ME 392 Mechanical Design* 3.0	<b>Total 3.0</b>
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 15.0</b>	Emphasis Specific Course (1st of 3)* 3.0	
	<b>Total 16.0</b>	
<u>FALL 2025</u>	<u>SPRING 2026</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)	
ME 462 Experimental Methods in ME* (Area A1★) "G4" 1.0	ENG 310 Engineering Ethics (Area D-Upper Div) 3.0	
ME 462L Experimental Methods in ME Lab* 1.0	GOV 200 American Government 3.0	
ME 492 Project Design I* 2.0	American Institutions II Elective (Area D-Lower Div) 2.0	
ME 492L Project Design I Lab* 1.0	ME 494 Project Design II* 1.0	
Emphasis Specific Course (2nd of 3)* 3.0	ME 494L Project Design II Lab* 3.0	
<b>Total 14.0</b>	Emphasis Specific Course (3rd of 3)* 3.0	
	<b>Total 15.0</b>	

"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)

\* Courses in Major (CGPA = 2.0 is required)

**EMPHASIS SPECIFIC COURSES**

**Energy Design Emphasis**  
 1st – ME 440 Advanced Fluids & Thermodynamics  
 2nd – ME 442 Heating, Ventilation, and A/C Design OR  
 ENG 300 Power Engineering  
 3rd – ME 444 Energy Systems Design

**Mechanical Design Emphasis**  
 1st – ME 432 Machinery Design  
 2nd – ME 430 Mechanical Vibrations  
 3rd – ME 460 Automatic Feedback Control