

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
ENERGY DESIGN & MECHANICAL DESIGN OPTIONS
DIVISIONS 1&2
CURRICULUM ROADMAP

05/09/24
Subject to Change

Total Units: 147

<u>FALL 2024</u>	3.0	<u>SPRING 2025</u>	3.0	<u>SUMMER SEA TERM 2025</u>	8.0
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	Total	8.0
EGL 100 English Composition (Area A2) "G4"	3.0	DL 105L Marine Survival Lab	1.0		
ENG 110 Introduction to Engineering and Technology*	1.0	DL 105X USCG Lifeboatman's Exam	0.0		
ENG 112 Intro to Technical Communication* (Area A1★) "G4"	1.0	EGL 220 Critical Thinking	3.0		
EPO 110 Plant Operations I	1.0	Critical Thinking Elective (Area A3) "G4"			
EPO 125 Introduction to Marine Engineering	3.0	FF 100 Basic Marine Firefighting	0.0		
EPO 125L Introduction to Marine Engineering Lab	1.0	ME 220 Computer Aided Design*	2.0		
EPO 213 Welding Lab	1.0	MTH 211 Calculus II (Area B4)	4.0		
MTH 210 Calculus I (Area B4) "G4"	4.0	NAU 104 Shipboard Security and Responsibility	1.0		
PE 101 Swim Competency Exam	0.0	PHY 200 Engineering Physics I (Area B1)	3.0		
PE 102 Beginning/Intermediate Swimming	(0.5)	PHY 200L Engineering Physics I Lab (Area B3)	1.0		
Total	19.0	Total	19.0		
<u>FALL 2025</u>	2.0	<u>SPRING 2026</u>	3.0	<u>SUMMER INTERNSHIP 2026</u>	3.0
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	Total	3.0
ME 205 Engineering Career Preparation*	1.0	ENG 250L Electrical Circuits and Electronics Lab*	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	Total	16.0		
PHY 205L Engineering Physics II Lab	1.0				
Total	18.0				
<u>FALL 2026</u>	3.0	<u>SPRING 2027</u>	3.0	<u>SUMMER INTERNSHIP 2027</u>	3.0
Arts OR 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	Total	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		
Total	15.0	Option Specific Course (1st of 3)*	3.0		
		Total	16.0		
<u>FALL 2027</u>	3.0	<u>SPRING 2028</u>	3.0		
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)		
ME 405 Fundamentals of Engineering Exam Seminar*	1.0	ENG 310 Engineering Ethics (Area D-Upper Div)	3.0		
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)			
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		
Option Specific Course (2nd of 3)*	3.0	Option Specific Course (3rd of 3) *	3.0		
Total	15.0	Total	15.0		

"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)

OPTION SPECIFIC COURSES

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