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

STUDENTS ENTERING IN 2025
MECHANICAL ENGINEERING MAJOR
ENERGY DESIGN & MECHANICAL DESIGN OPTIONS
DIVISIONS 1&2
CURRICULUM ROADMAP

11/06/24
Subject to Change

Total Units: 146

FALL 2025

CHE	110	General Chemistry (Area 5A-Lower Div)	3.0
CHE	110L	General Chemistry Lab (Area 5C-Lower Div)	1.0
EGL	100	English Composition (Area 1A) **"G4"**	3.0
ENG	110	Introduction to Engineering and Technology✸	1.0
ENG	112	Intro to Technical Communication✸ (Area 1C☆) **"G4"**	2.0
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 2-Lower Div) **"G4"**	4.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
		Total	**20.0**

FALL 2026

ENG	210	Engineering Computer Programming	2.0
EPO	215	Manufacturing Processes I	1.0
ME	205	Engineering Career Preparation✸	1.0
ME	230	Engineering Materials✸	3.0
ME	232	Engineering Statics✸	3.0
MTH	212	Calculus III (Area 2-Lower Div)	4.0
PHY	205	Engineering Physics II (Area 5A-Lower Div)	3.0
PHY	205L	Engineering Physics II Lab	1.0
		Total	**18.0**

FALL 2027

CSU Graduate Writing Assessment Requirement (GWAR) Elective♦			(3.0)
Life Science Elective (Area 5B-Lower Div)			3.0
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	**12.0**

FALL 2028

HIS 100 U.S. History (to 1877) **OR** HIS 101 U.S. History (from 1877) American Institutions I Elective (Area 4-Lower Div) **OR** (Area 6)			3.0
Social Science Elective (Area 4-Lower Div)			3.0
ME	405	Fundamentals of Engineering Exam Seminar✸	1.0
ME	462	Experimental Methods in ME✸	2.0
ME	462L	Experimental Methods in ME Lab✸	1.0
ME	492	Project Design I✸	2.0
ME	492L	Project Design I Lab✸	1.0
Option Specific Course (2nd of 3)✸			3.0
		Total	**16.0**

SPRING 2026

Arts Elective (Area 3A-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 1B) **"G4"**			
FF	100	Basic Marine Firefighting	0.0
ME	220	Computer Aided Design✸	2.0
MTH	211	Calculus II (Area 2-Lower Div)	4.0
NAU	104	Shipboard Security and Responsibility	1.0
PHY	200	Engineering Physics I (Area 5A-Lower Div)	3.0
PHY	200L	Engineering Physics I Lab (Area 5C-Lower Div)	1.0
		Total	**19.0**

SPRING 2027

Humanities Elective (Area 3B-Lower Div)			3.0
ENG	250	Electrical Circuits and Electronics✸	3.0
ENG	250L	Electrical Circuits and Electronics Lab✸	1.0
ME	240	Engineering Thermodynamics✸	3.0
ME	330	Engineering Dynamics✸	3.0
MTH	215	Differential Equations (Area 2-Lower Div)	3.0
		Total	**16.0**

SPRING 2028

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✸ (Area 1C☆) **"G4"**	3.0
Option Specific Course (1st of 3)✸			3.0
		Total	**16.0**

SPRING 2029

Arts/Humanities Elective (Area 3-Upper Div)			3.0
ENG	310	Engineering Ethics (Area 4-Upper Div)	3.0
GOV	200	American Government	3.0
American Institutions II Elective (Area 4-Lower Div)			
ME	494	Project Design II✸	2.0
ME	494L	Project Design II Lab✸	1.0
Option Specific Course (3rd of 3) ✸			3.0
		Total	**15.0**

SUMMER SEA TERM 2026

CRU 150 Sea Training I (Engine)	8.0
Total	**8.0**

SUMMER INTERNSHIP 2027

CEP 250 ME Co-Op I	3.0
Total	**3.0**

SUMMER INTERNSHIP 2028

CEP 350 ME Co-Op II	3.0
Total	**3.0**

"G4" "Golden 4" Courses (Must receive a "C-" or higher)

☆ GE Area 1C Sequence of Two 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

English Communication
Arts and Humanities
Physical and Biological Sciences
Mathematical Concepts and Quantitative Reasoning
Social and Behavioral Sciences
Ethnic Studies