Please inform the Registrar's Office if you choose an alternate option. **STUDENTS ENTERING IN 2024** **05/09/24**
Otherwise your Academic Advisement Report will be incorrect. **MECHANICAL ENGINEERING MAJOR** **Subject to Change**

ENERGY DESIGN & MECHANICAL DESIGN OPTIONS
DIVISIONS 3&4
CURRICULUM ROADMAP

Total Units: 147

FALL 2024

Arts Elective (Area C1-Lower Div)			3.0
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
ENG	112	Intro to Technical Communication❁ (Area A1☆) **"G4"**	1.0
FF	100	Basic Marine Firefighting	0.0
ME	220	Computer Aided Design❁	2.0
MTH	210	Calculus I (Area B4) **"G4"**	4.0
PE	101	Swim Competency Exam	0.0
PE	102	Beginning/Intermediate Swimming	(0.5)
		Total	**18.0**

FALL 2025

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 B4)	4.0
PHY	205	Engineering Physics II (Area B1)	3.0
PHY	205L	Engineering Physics II Lab	1.0
		Total	**18.0**

FALL 2026

Arts **OR** Humanities Elective (Area C-Lower Div)			3.0
Life Science Elective (Area B2)			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	**15.0**

FALL 2027

American Institutions I Elective (Area D-Lower Div) **OR** (Area F)			3.0
Social Science Elective (Area D-Lower Div)			3.0
ME	405	Fundamentals of Engineering Exam Seminar❁	1.0
ME	462	Experimental Methods in ME❁ (Area A1☆) **"G4"**	1.0
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	**15.0**

SPRING 2025

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"**			
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	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**

SPRING 2026

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
ME	240	Engineering Thermodynamics❁	3.0
ME	330	Engineering Dynamics❁	3.0
MTH	215	Differential Equations (Area B4)	3.0
		Total	**16.0**

SPRING 2027

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 A1☆) **"G4"**	3.0
Option Specific Course (1st of 3)❁			3.0
		Total	**16.0**

SPRING 2028

Arts/Humanities Upper Div Elective (Area C-Upper Div)			3.0
CSU Graduate Writing Assessment Requirement (GWAR) Elective♦			(3.0)
ENG	310	Engineering Ethics (Area D-Upper Div)	3.0
GOV	200	American Government	3.0
American Institutions II Elective (Area D-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 2025

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

SUMMER INTERNSHIP 2026

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

SUMMER INTERNSHIP 2027

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

"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