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

## STUDENTS ENTERING IN 2021 MECHANICAL ENGINEERING MAJOR GENERAL OPTION DIVISIONS 3&4 CURRICULUM ROADMAP

8/23/21 Subject to Change

**Total Units: 147** 

FALL 2021         Arts Elective (Area C1-Lower Div)         CHE 110       General Chemistry (Area B1)         CHE 110L       General Chemistry Lab (Area B3)         EGL 100       English Composition (Area A2) "G4"         ENG 110       Introduction to Engineering and Technology         ENG 112       Intro Technical Communication         (Area A1♠) "G4"         FF 100       Basic Marine Firefighting         ME 220       Computer Aided Design         MTH 210       Calculus I (Area B4) "G4"         PE 101       Swim Competency Exam	3.0 3.0 1.0 3.0 1.0 1.0 2.0 4.0 0.0 <b>Total 18.0</b>	SPRING 2022  DL 105 Marine Survival  DL 105L Marine Survival Lab  DL 105X USCG Lifeboatman's Exam  EGL 220 Critical Thinking  Critical Thinking Elective (Area A3) "G4"  EPO 110 Plant Operations I  EPO 125 Introduction to Marine Engineering  EPO 125L Introduction to Marine Engineering Lab  EPO 213 Welding Lab  MTH 211 Calculus II (Area B4)  NAU 104 Shipboard Security and Responsibility  PHY 200 Engineering Physics I (Area B1)  PHY 200L Engineering Physics I Lab (Area B3)	1.0 1.0 0.0 3.0 1.0 3.0 1.0 4.0 1.0 3.0 1.0 Total 20.0	SUMMER CRUISE 2022 CRU 150 Sea Training I (Engine) 8.0 EPO 220 Diesel Engineering I 2.0 Total 10.0
FALL 2022ENG 210Engineering Computer ProgrammingEPO 215Manufacturing Processes IME 230Engineering MaterialsME 232Engineering StaticsMTH 212Calculus III (Area B4)PHY 205Engineering Physics II (Area B1)	2.0 1.0 3.0 3.0 4.0 4.0 <b>Total 17.0</b>	Humanities Elective (Area C2-Lower Div) ENG 250 Electrical Circuits and Electronics ENG 250L Electrical Circuits and Electronics Lab Electrical Circuits and Electronics Lab Engineering Thermodynamics Engineering Dynamics Differential Equations (Area B4)	3.0 3.0 1.0 3.0 3.0 3.0 Total 16.0	SUMMER CO-OP 2023 CEP 250 ME Co-Op I 3.0 Total 3.0
FALL 2023 Arts OR Humanities Elective (Area C-Lower Div) Life Science Elective (Area B2) ME 332 Mechanics of Materials ME 340 Engineering Fluid Mechanics ME 360 Instrumentation and Measurement Systems ME 360L Instr. and Measurement Systems Lab	3.0 3.0 3.0 3.0 2.0 1.0 <b>Total 15.0</b>	SPRING 2024ME344Heat TransferME392Mechanical DesignME429Manufacturing Processes LabME436Mechatronic System DesignME436LMechatronic System Design LabME490Engineering Design Process(Area A1 ♠) "G4"Emphasis Specific Course (1st of 3) ♣	3.0 3.0 1.0 2.0 1.0 3.0 3.0	SUMMER CO-OP 2024 CEP 350 ME Co-Op II  Total 3.0  CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam (GWE) or passing EGL 300 Advanced Writing.  Meets CSU Graduate Writing Assessment Requirement (GWAR). (Must receive a "C-" or higher)  "G4" "Golden 4" Courses (Must receive a "C-" or higher)  GE Area A1 Sequence of Three Courses
FALL 2024 American Institutions I Elective (Area D-Lower Div) OR (Area F) Social Science Elective (Area D-Lower Div) ME 462 Experimental Methods in ME (Area A14) "G4" ME 462L Experimental Methods in ME Lab ME 492 Project Design I & ME 492L Project Design I Lab Emphasis Specific Course (2nd of 3)	3.0 3.0 1.0 1.0 2.0 1.0 3.0 Total 14.0	SPRING 2025 Arts/Humanities Upper Div Elective (Area C-Upper Div) EGL 300 Advanced Writing ENG 310 Engineering Ethics (Area D-Upper Div) GOV 200 American Government American Institutions II Elective (Area D-Lower Div) ME 494 Project Design II ME 494L Project Design II Lab Emphasis Specific Course (3rd of 3) ♣	3.0 (3.0) 3.0 3.0 2.0 1.0 3.0 Total 15.0	* 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