

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

STUDENTS ENTERING IN 2018
MECHANICAL ENGINEERING MAJOR
THIRD ASSISTANT ENGINEER'S LICENSE OPTION
DIVISIONS 1&2
CURRICULUM

REVISED 1/15/21
Subject to Change

Total Units: 162

THIRD ASSISTANT ENGINEER'S LICENSE COURSES ARE BOLDDED. ADDITIONAL UNITS MUST BE ADDED TO TOTAL FOR EACH SEMESTER.

| | | | | | | | | |
|------------------|---|-------------|--------------------|--|-------------|------------------------------------|--------------|-------------|
| FALL 2018 | | | SPRING 2019 | | | SUMMER CRUISE 2019 | | |
| CHE 110 | General Chemistry (Area B1) | 3.0 | | Humanities Elective (Area C2-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 | EPO 220 Diesel Engineering I | | 2.0 |
| EGL 100 | English Composition (Area A2) | 3.0 | DL 105L | Marine Survival Lab▶ | 1.0 | | Total | 10.0 |
| EGL 120 | Technical Communication* (Area A1) | 3.0 | DL 105X | USCG Lifeboatman's Exam | 0.0 | | | |
| ENG 110 | Introduction to Engineering and Technology* | 1.0 | EGL 220 | Critical Thinking | 3.0 | | | |
| EPO 110 | Plant Operations I▶ | 1.0 | | [Critical Thinking Elective] (Area A3) | | | | |
| EPO 125 | Introduction to Marine Engineering | 3.0 | MTH 211 | Calculus II (Area B4) | 4.0 | | | |
| EPO 213 | Welding Lab▶ | 1.0 | NAU 104 | Shipboard Security and Responsibility▶ | 1.0 | | | |
| MTH 210 | Calculus I (Area B4) | 4.0 | PHY 200 | Engineering Physics I (Area B1) | 3.0 | | | |
| PE 101 | Swim Competency Exam | 0.0 | PHY 200L | Engineering Physics I Lab (Area B3) | 1.0 | | | |
| PE 102 | Beginning/Intermediate Swimming | (0.5) | | | | | | |
| | Total | 20.0 | | Total | 17.0 | | | |
| FALL 2019 | | | SPRING 2020 | | | SUMMER CRUISE 2020 | | |
| ENG 210 | Engineering Computer Programming | 2.0 | ENG 250 | Electrical Circuits and Electronics▶* | 3.0 | CRU 250 Sea Training II | | 8.0 |
| EPO 210 | Plant Operations II▶ | 1.0 | ENG 250L | Electrical Circuits and Electronics Lab▶* | 1.0 | | Total | 8.0 |
| EPO 215 | Manufacturing Processes I▶ | 1.0 | EPO 214 | Boilers▶ | 3.0 | | | |
| ME 220 | Computer Aided Engineering▶* | 2.0 | EPO 230 | Steam Plant System Operations▶ | 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 | ME 332 | Mechanics of Materials* | 3.0 | | | |
| PHY 205 | Engineering Physics II (Area B1) | 4.0 | MTH 215 | Differential Equations (Area B4) | 4.0 | | | |
| | Total | 19.0 | | Total | 17.0 | | | |
| FALL 2020 | | | SPRING 2021 | | | SUMMER CRUISE 2021 | | |
| | Life Science Elective (Area B2) | 3.0 | EGL 300 | Advanced Writing | (3.0) | CRU 350 Sea Training III (Engine)▶ | | 8.0 |
| EPO 235 | Steam Plant Watch Team Management▶ | 1.0 | EPO 310 | Plant Operations III▶ | 1.0 | | Total | 8.0 |
| EPO 312 | Turbines▶ | 3.0 | EPO 343 | Refrigeration & A/C▶ | 1.0 | | | |
| EPO 322 | Diesel Engineering II/Simulator | 1.0 | FF 200 | Basic/Advanced Marine Firefighting▶ | 0.0 | | | |
| EPO 322L | Diesel Engineering II/Simulator Lab▶ | 1.0 | ME 339 | Material/Mechanical Lab* | 2.0 | | | |
| ME 340 | Engineering Fluid Mechanics* | 3.0 | ME 344 | Heat Transfer* | 3.0 | | | |
| ME 350 | Electromechanical Machinery* | 3.0 | ME 392 | Mechanical Design* | 3.0 | | | |
| ME 350L | Electromechanical Machinery Lab▶* | 1.0 | ME 460 | Automatic Feedback Control▶* | 2.0 | | | |
| ME 360 | Instrumentation and Measurement Systems* | 2.0 | ME 460L | Automatic Feedback Control Lab* | 1.0 | | | |
| ME 360L | Instr. and Measurement Systems Lab* | 1.0 | ME 490 | Engineering Design Process* | 3.0 | | | |
| | Total | 13.0 | STEM 1 | Stem Course (See Box)* | 3.0 | | | |
| | | | | Total | 17.0 | | | |
| FALL 2021 | | | SPRING 2022 | | | | | |
| | American Institutions I Elective (Area D-Lower Div) | 3.0 | | Humanities Elective (Area C-Upper Div) | 3.0 | | | |
| | Social Science Elective (Area D-Lower Div) | 3.0 | ENG 310 | Engineering Ethics (Area D-Upper Div) | 3.0 | | | |
| ENG 430 | Naval Architecture▶* | 3.0 | EPO 217 | Shipboard Medical▶ | 1.0 | | | |
| ME 349 | Fluid/Thermal Lab* | 2.0 | GOV 200 | American Government | 3.0 | | | |
| ME 394 | Fluid/Thermal Design* | 3.0 | | [American Institutions II Elective] (Area D-Lower Div) | | | | |
| ME 492 | Project Design I* | 3.0 | ME 429 | Manufacturing Processes Lab* | 3.0 | | | |
| STEM 2 | Stem Course (See Box)* | 3.0 | ME 494 | Project Design II* | 1.0 | | | |
| | Total | 17.0 | STEM 3 | Stem Course (See Box)* | 3.0 | | | |
| | | | | Total | 16.0 | | | |

**THIRD ASSISTANT ENGINEER'S/OICEW LICENSE
REQUIRED FOR GRADUATION**

CSU Writing Proficiency Requirements may be met by passing the Graduate Writing Exam, or passing EGL 300 Advanced Writing.

▶ STCW Courses (Must receive a "C-" or higher, or "CR")
* Courses in Major (CGPA = 2.0 is required)

STEM COURSES

Energy Design Stem

- 1 - ME 440 Advanced Fluids & Thermodynamics (Spring 2021)*
- 2 - ME 442 Heating, Ventilation and A/C Design (Fall 2021)*
- 3 - ME 444 Energy Systems Design (Spring 2022)*

Mechanical Design Stem

- 1 - ME 436 Mechatronic System Design (Spring 2021)*
- 2 - ME 430 Mechanical Vibrations (Fall 2021)*
- 3 - ME 432 Machinery Design (Spring 2022)*