**THIRD ASSISTANT ENGINEER’S LICENSE COURSES ARE BOLDED.  ADDITIONAL UNITS MUST BE ADDED TO TOTAL FOR EACH SEMESTER.**

**Writing Proficiency Requirement:** All Junior students must demonstrate upper division writing competency as a graduation requirement. This may be fulfilled by passing either the Graduation Writing Exam, or EGL 300 Advanced Writing.

**MECHANICAL ENGINEERING MAJOR**

**THIRD ASSISTANT ENGINEER’S LICENSE OPTION**

**DIVISIONS 1 & 2 CURRICULUM**

**CLASS OF 2020**

**REVISED 4/25/18 Subject to Change**

**Total Units: 161**

**Third Assistant Engineer’s/OICEW License Required For Graduation**

### FALL 2016
- **CHE 110** General Chemistry 3.0
- **CHE 110L** General Chemistry Lab 1.0
- **EGL 100** English Composition 3.0
- **ELEC 21** Humanities Elective (Lower Division) 3.0
- **ENG 110** Introduction to Engineering and Technology 1.0
- **ME 210** Calculus I 4.0
- **PE 101** Swim Competency Exam 0.5
- **PE 102** Beginning/Intermediate Swimming 1.0

### SPRING 2017
- **CHE 110** General Chemistry 3.0
- **DL 105** Marine Survival 1.0
- **DL 105L** Marine Survival Lab 1.0
- **EGL 100** English Composition 3.0
- **ELEC 21** Humanities Elective (Lower Division) 3.0
- **ENG 110** Introduction to Engineering and Technology 1.0
- **ME 210** Calculus I 4.0
- **ME 211** Calculus II 4.0
- **PE 101** Swim Competency Exam 0.5
- **PE 102** Beginning/Intermediate Swimming 1.0

### FALL 2017
- **ENG 210** Engineering Computer Programming 2.0
- **EPO 210** Plant Operations II 1.0
- **EPO 215** Manufacturing Processes 1.0
- **ME 220** Computer Aided Engineering 2.0
- **ME 230** Engineering Materials 3.0
- **ME 232** Engineering Statics 3.0
- **ME 212** Calculus I 4.0
- **PHY 205** Engineering Physics II 4.0

### SPRING 2018
- **ENG 210** Engineering Computer Programming 2.0
- **EPO 215** Manufacturing Processes 1.0
- **ME 220** Computer Aided Engineering 2.0
- **ME 230** Engineering Materials 3.0
- **ME 232** Engineering Statics 3.0
- **ME 212** Calculus I 4.0
- **PHY 205** Engineering Physics II 4.0

### FALL 2018
- **ENG 300** Engineering Numerical Modeling & Analysis 3.0
- **EPO 325** Steam Plant Watch Team Management 1.0
- **EPO 312** Turbines 3.0
- **EPO 322** Diesel Engineering II/Simulator 1.0
- **EPO 322L** Diesel Engineering II/Simulator Lab 1.0
- **FF 200** Basic/Advanced Marine Firefighting 0.0
- **ME 350** Electromechanical Machinery 3.0
- **ME 350L** Electromechanical Machinery Lab 2.0
- **ME 360** Instrumentation and Measurement Systems 2.0
- **ME 360L** Instr. and Measurement Systems Lab 1.0

### SPRING 2019
- **ENG 300** Engineering Numerical Modeling & Analysis 3.0
- **EPO 325** Steam Plant Watch Team Management 1.0
- **EPO 312** Turbines 3.0
- **EPO 322** Diesel Engineering II/Simulator 1.0
- **EPO 322L** Diesel Engineering II/Simulator Lab 1.0
- **FF 200** Basic/Advanced Marine Firefighting 0.0
- **ME 350** Electromechanical Machinery 3.0
- **ME 350L** Electromechanical Machinery Lab 2.0
- **ME 360** Instrumentation and Measurement Systems 2.0
- **ME 360L** Instr. and Measurement Systems Lab 1.0

### FALL 2019
- **ELEC 8** American Institutions Elective 3.0
- **ELEC 31** Social Science Elective (Lower Division) 3.0
- **ENG 430** Naval Architecture 3.0
- **ME 349** Fluid/Thermal Lab 3.0
- **ME 394** Fluid/Thermal Design 3.0
- **ME 492** Project Design 3.0
- **STEM 2** Stem Course (See Box) 3.0

### SPRING 2020
- **ELEC 8** American Institutions Elective 3.0
- **ELEC 31** Social Science Elective (Lower Division) 3.0
- **ENG 430** Naval Architecture 3.0
- **ME 349** Fluid/Thermal Lab 3.0
- **ME 394** Fluid/Thermal Design 3.0
- **ME 492** Project Design 3.0
- **STEM 2** Stem Course (See Box) 3.0

### SUMMARY

- **Total Units:** 161
- **Writing Proficiency Requirement:** All Junior students must demonstrate upper division writing competency as a graduation requirement. This may be fulfilled by passing either the Graduation Writing Exam, or EGL 300 Advanced Writing.

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**STEM COURSES**

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<tr>
<th>Subject</th>
<th>Course</th>
<th>Units</th>
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<td>Energy Design Stem</td>
<td>ME 444 Advanced Fluids &amp; Thermodynamics (Spring 2019)</td>
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<td>ME 442 Heating, Ventilation, and A/C Design (Fall 2019)</td>
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<td>ME 444 Energy Systems Design (Spring 2020)</td>
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<td>Mechanical Design Stem</td>
<td>ME 436 Mechatronic System Design (Spring 2019)</td>
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<td>ME 430 Mechanical Vibrations (Fall 2019)</td>
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<tr>
<td></td>
<td>ME 432 Machinery Design (Spring 2020)</td>
<td>3.0</td>
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