

Please inform Student Records if you choose an alternate option. Otherwise your Degree Progress Report will be incorrect.

**MECHANICAL ENGINEERING MAJOR  
THIRD ASSISTANT ENGINEER'S LICENSE OPTION  
GOLD COMPANY  
CURRICULUM**

**Subject to Change**

**Total Units: 164**

**Third Assistant Engineer's/OICEW License Required for Graduation**

**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.

<u>FALL (Freshman Year)</u>		<u>SPRING (Freshman Year)</u>		<u>SPRING CRUISE (Freshman Year)</u>	
CHE 100 Chemistry I	3.0	DL 105 Marine Survival▶	1.0	CRU 150 Sea Training I (Engine)▶	8.0
CHE 100L Chemistry I Lab	1.0	DL 105L Marine Survival Lab▶	1.0	EPO 220 Diesel Engineering I	2.0
EGL 100 English Composition	3.0	DL 105X USCG Lifeboatman's Exam	0.0	<b>Total</b>	<b>10.0</b>
ENG 110 Intro to Engineering and Technology*	1.0	ELEC 20 Critical Thinking Elective	3.0		
ENG 120 Engineering Communications▶*	2.0	ELEC 21 Humanities Elective (Lower Div.)	3.0		
EPO 110 Plant Operations I▶	1.0	MTH 211 Calculus II	4.0		
EPO 125 Intro to Marine Engineering	3.0	<b>NSC 100 Naval Science for the MMO</b>	<b>3.0</b>		
EPO 213 Welding Lab▶	1.0	PHY 200 Engineering Physics I	3.0		
MTH 210 Calculus I	4.0	PHY 200L Engineering Physics I Lab	1.0		
PE 100 Beginning/Intermediate Swimming	(.5)	<b>Total</b>	<b>16.0</b>		
<b>Total</b>	<b>19.0</b>				

<u>FALL (Sophomore Year)</u>		<u>SPRING (Sophomore Year)</u>		<u>SPRING CRUISE (Sophomore Year)</u>	
ENG 210 Engineering Computer Programming	2.0	ENG 250 Electrical Circ & Electronics*	3.0	CRU 250 Sea Training II (Engine)	8.0
<b>EPO 210 Plant Operations II▶</b>	<b>1.0</b>	ENG 250L Electrical Circ & Electronics Lab▶*	1.0	<b>Total</b>	<b>8.0</b>
EPO 215 Manufacturing Processes I▶	1.0	<b>EPO 214 Boilers</b>	<b>3.0</b>		
ME 220 Computer Aided Engineering*	2.0	<b>EPO 230 Steam Plant System Operations▶</b>	<b>1.0</b>		
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	4.0	ME 332 Mechanics of Materials*	3.0		
PHY 205 Engineering Physics II	4.0	MTH 215 Differential Equations	4.0		
<b>Total</b>	<b>19.0</b>	<b>Total</b>	<b>17.0</b>		

<u>FALL (Junior Year)</u>		<u>SPRING (Junior Year)</u>		<u>SPRING CRUISE (Junior Year)</u>	
ENG 300 Engineering Numerical Analysis*	4.0	EGL 300 Advanced Writing▶	(3.0)	CRU 350 Sea Training III (Engine)▶	8.0
<b>EPO 235 Steam Plant Watch Team Mgmt▶</b>	<b>1.0</b>	<b>EPO 310 Plant Operations III</b>	<b>1.0</b>	<b>Total</b>	<b>8.0</b>
<b>EPO 312 Turbines</b>	<b>3.0</b>	ME 339 Material/Mechanical Lab▶*	2.0		
<b>EPO 322 Diesel Engineering II/Simulator</b>	<b>1.0</b>	ME 344 Heat Transfer*	3.0	▶ <b>STCW Courses (Must receive a</b>	
<b>EPO 322L Diesel Engineering II/Simulator Lab▶</b>	<b>1.0</b>	ME 392 Mechanical Design*	3.0	<b>"C-" or better, or "CR")</b>	
<b>FF 200 Basic/Adv Marine Firefighting▶</b>	<b>0.0</b>	ME 460 Automatic Feedback Control*	3.0	<b>* Courses in Major</b>	
ME 340 Engineering Fluid Mechanics*	3.0	ME 460L Automatic Feedback Control Lab*	1.0	<b>(CGPA = 2.0 is Required)</b>	
ME 350 Electromech Machinery*	3.0	ME 490 Engineering Design Process*	3.0	<b>■ FF 200 Basic/Advanced Marine</b>	
ME 350L Electromech Machinery Lab▶*	1.0	STEM 1 Stem Course (See Box)*	3.0	<b>Firefighting is also offered Spring</b>	
ME 360 Instr. & Measurement Sys*	2.0	<b>Total</b>	<b>18.0</b>	<b>(Junior Year)</b>	
ME 360L Instr. & Measurement Sys Lab*	1.0				
<b>Total</b>	<b>14.0</b>				

<u>FALL (Senior Year)</u>		<u>SPRING (Senior Year)</u>		<u>STEM COURSES</u>	
ELEC 8 American Institutions Elective	3.0	ELEC 9 American Institutions Elective	3.0	<b>Energy Design Stem</b>	
<b>ENG 430 Naval Architecture▶*</b>	<b>3.0</b>	<b>EPO 217 Shipboard Medical▶</b>	<b>1.0</b>	ME 440 Advanced Fluids & Thermodynamics*	
ENG 470 Engineering Management*	3.0	HUM 310 Engineering Ethics	3.0	ME 442 HVAC Design*	
ME 349 Fluid/Thermal Lab*	2.0	ME 312 Refrigeration & A/C*	3.0	ME 444 Energy Systems Design*	
ME 394 Fluid/Thermal Design*	3.0	ME 429 Manufacturing Processes Lab▶*	2.0	<b>Mechanical Design Stem</b>	
ME 492 Project Design I*	3.0	ME 494 Project Design II*	3.0	ME 434 Advanced Mechanics of Materials*	
STEM 2 Stem Course (See Box)*	3.0	STEM 3 Stem Course (See Box)*	4.0	ME 430 Mechanical Vibrations*	
<b>Total</b>	<b>17.0</b>	<b>Total</b>	<b>18.0</b>	ME 432 Machinery Design*	

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**MECHANICAL ENGINEERING MAJOR  
THIRD ASSISTANT ENGINEER'S LICENSE OPTION  
BLUE COMPANY  
CURRICULUM**

**Subject to Change**

**Total Units: 164**

**Third Assistant Engineer's/OICEW License Required for Graduation**

**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.

<u>FALL (Freshman Year)</u>		<u>SPRING (Freshman Year)</u>		<u>SPRING CRUISE (Freshman Year)</u>	
CHE 100 Chemistry I	3.0	DL 105 Marine Survival▶	1.0	CRU 150 Sea Training I (Engine)▶	8.0
CHE 100L Chemistry I Lab	1.0	DL 105L Marine Survival Lab▶	1.0	EPO 220 Diesel Engineering I	2.0
EGL 100 English Composition	3.0	DL 105X USCG Lifeboatman's Exam	0.0	<b>Total</b>	<b>10.0</b>
ELEC 21 Humanities Elective (Lower Division)	3.0	ELEC 20 Critical Thinking Elective	3.0		
ENG 110 Intro to Engineering and Technology*	1.0	EPO 110 Plant Operations I▶	1.0		
ENG 120 Engineering Communications▶*	2.0	EPO 125 Intro to Marine Engineering	3.0		
MTH 210 Calculus I	4.0	EPO 213 Welding Lab▶	1.0		
<b>NSC 100 Naval Science for the MMO</b>	<b>3.0</b>	MTH 211 Calculus II	4.0		
PE 100 Beginning/Intermediate Swimming	(.5)	PHY 200 Engineering Physics I	3.0		
<b>Total</b>	<b>17.0</b>	PHY 200L Engineering Physics I Lab	1.0		
		<b>Total</b>	<b>18.0</b>		

<u>FALL (Sophomore Year)</u>		<u>SPRING (Sophomore Year)</u>		<u>SPRING CRUISE (Sophomore Year)</u>	
ENG 210 Engineering Computer Programming	2.0	ENG 250 Electrical Circ & Electronics*	3.0	CRU 250 Sea Training II (Engine)	8.0
<b>EPO 210 Plant Operations II▶</b>	<b>1.0</b>	ENG 250L Electrical Circ & Electronics Lab▶*	1.0	<b>Total</b>	<b>8.0</b>
EPO 215 Manufacturing Processes I▶	1.0	<b>EPO 214 Boilers</b>	<b>3.0</b>		
ME 220 Computer Aided Engineering*	2.0	<b>EPO 230 Steam Plant System Operations▶</b>	<b>1.0</b>		
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	4.0	ME 332 Mechanics of Materials*	3.0		
PHY 205 Engineering Physics II	4.0	MTH 215 Differential Equations	4.0		
<b>Total</b>	<b>19.0</b>	<b>Total</b>	<b>17.0</b>		

<u>FALL (Junior Year)</u>		<u>SPRING (Junior Year)</u>		<u>SPRING CRUISE (Junior Year)</u>	
ENG 300 Engineering Numerical Analysis*	4.0	EGL 300 Advanced Writing▶	(3.0)	CRU 350 Sea Training III (Engine)▶	8.0
<b>EPO 235 Steam Plant Watch Team Mgmt▶</b>	<b>1.0</b>	<b>EPO 310 Plant Operations III</b>	<b>1.0</b>	<b>Total</b>	<b>8.0</b>
<b>EPO 312 Turbines</b>	<b>3.0</b>	ME 339 Material/Mechanical Lab▶*	2.0		
<b>EPO 322 Diesel Engineering II/Simulator</b>	<b>1.0</b>	ME 344 Heat Transfer*	3.0	▶ <b>STCW Courses (Must receive a</b>	
<b>EPO 322L Diesel Engineering II/Simulator Lab▶</b>	<b>1.0</b>	ME 392 Mechanical Design*	3.0	<b>"C-" or better, or "CR")</b>	
<b>FF 200 Basic/Adv Marine Firefighting▶</b>	<b>0.0</b>	ME 460 Automatic Feedback Control*	3.0	<b>* Courses in Major</b>	
ME 340 Engineering Fluid Mechanics*	3.0	ME 460L Automatic Feedback Control Lab*	1.0	<b>(CGPA = 2.0 is Required)</b>	
ME 350 Electromech Machinery*	3.0	ME 490 Engineering Design Process*	3.0	<b>■ FF 200 Basic/Advanced Marine</b>	
ME 350L Electromech Machinery Lab▶*	1.0	STEM 1 Stem Course (See Box)*	3.0	<b>Firefighting is also offered Spring</b>	
ME 360 Instr. & Measurement Sys*	2.0	<b>Total</b>	<b>18.0</b>	<b>(Junior Year)</b>	
ME 360L Instr. & Measurement Sys Lab*	1.0				
<b>Total</b>	<b>14.0</b>				

<u>FALL (Senior Year)</u>		<u>SPRING (Senior Year)</u>		<u>STEM COURSES</u>	
ELEC 8 American Institutions Elective	3.0	ELEC 9 American Institutions Elective	3.0	<b>Energy Design Stem</b>	
<b>ENG 430 Naval Architecture▶*</b>	<b>3.0</b>	<b>EPO 217 Shipboard Medical▶</b>	<b>1.0</b>	ME 440 Advanced Fluids & Thermodynamics*	
ENG 470 Engineering Management*	3.0	HUM 310 Engineering Ethics	3.0	ME 442 HVAC Design*	
ME 349 Fluid/Thermal Lab*	2.0	ME 312 Refrigeration & A/C*	3.0	ME 444 Energy Systems Design*	
ME 394 Fluid/Thermal Design*	3.0	ME 429 Manufacturing Processes Lab▶*	2.0	<b>Mechanical Design Stem</b>	
ME 492 Project Design I*	3.0	ME 494 Project Design II*	3.0	ME 434 Advanced Mechanics of Materials*	
STEM 2 Stem Course (See Box)*	3.0	STEM 3 Stem Course (See Box)*	4.0	ME 430 Mechanical Vibrations*	
<b>Total</b>	<b>17.0</b>	<b>Total</b>	<b>18.0</b>	ME 432 Machinery Design*	