

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

CLASS OF 2021
MECHANICAL ENGINEERING MAJOR
THIRD ASSISTANT ENGINEER'S LICENSE OPTION
DIVISIONS 1&2
CURRICULUM

REVISED 4/25/18
Subject to Change

Total Units: 161

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 2017</u>	<u>SPRING 2018</u>	<u>SUMMER CRUISE 2018</u>	
CHE 110 General Chemistry 3.0	DL 105 Marine Survival▶ 1.0	CRU 150 Sea Training I (Engine)▶ 8.0	
CHE 110L General Chemistry 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	Total 10.0	
EGL 120 Technical Communication* 2.0	ELEC 20 Critical Thinking Elective 3.0		
ENG 110 Introduction to Engineering and Technology* 1.0	ELEC 21 Humanities Elective (Lower Division) 3.0		
EPO 110 Plant Operations I▶ 1.0	MTH 211 Calculus II 4.0		
EPO 125 Introduction to Marine Engineering 3.0	NAU 104 VPDS▶ 1.0		
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 101 Swim Competency Exam 0.0	Total 17.0		
PE 102 Beginning/Intermediate Swimming (0.5)			
Total 19.0			
<u>FALL 2018</u>	<u>SPRING 2019</u>	<u>SUMMER CRUISE 2019</u>	
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 4.0	ME 332 Mechanics of Materials* 3.0		
PHY 205 Engineering Physics II 4.0	MTH 215 Differential Equations 4.0		
Total 19.0	Total 17.0		
<u>FALL 2019</u>	<u>SPRING 2020</u>	<u>SUMMER CRUISE 2020</u>	
ENG 300 Engineering Numerical Modeling & Analysis* 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		
<u>FALL 2020</u>	<u>SPRING 2021</u>		
ELEC 8 American Institutions Elective 3.0	ELEC 9 American Institutions Elective 3.0		
ELEC 31 Social Science Elective (Lower Division) 3.0	ELEC 22 Humanities Elective (Upper Division) 3.0		
ENG 430 Naval Architecture▶* 3.0	EPO 217 Shipboard Medical▶ 1.0		
ME 349 Fluid/Thermal Lab* 2.0	HUM 310 Engineering Ethics 3.0		
ME 394 Fluid/Thermal Design* 3.0	ME 429 Manufacturing Processes Lab* 1.0		
ME 492 Project Design I* 3.0	ME 494 Project Design II* 3.0		
STEM 2 Stem Course (See Box)* 3.0	STEM 3 Stem Course (See Box)* 3.0		
Total 17.0	Total 16.0		

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

<u>STEM COURSES</u>	
<u>Energy Design Stem</u>	
1 - ME 440 Advanced Fluids & Thermodynamics (Spring 2020)*	
2 - ME 442 Heating, Ventilation and A/C Design (Fall 2020)*	
3 - ME 444 Energy Systems Design (Spring 2021)*	
<u>Mechanical Design Stem</u>	
1 - ME 436 Mechatronic System Design (Spring 2020)*	
2 - ME 430 Mechanical Vibrations (Fall 2020)*	
3 - ME 432 Machinery Design (Spring 2021)*	