

All	11.1.A	This task is covered for engineers in the STAR Center Leadership and Managerial Skills course	
All	12.1.A	This task is covered for engineers in the STAR Center Leadership and Managerial Skills course	
All	7.1.D	This task is covered for engineers in the Leadership and Managerial Skills course	
All	13.1.B	The KUP is demonstrated if the candidate has maintained STCW Adv FF competence/endorsement.	
All	13.1.C	The KUP is demonstrated if the candidate holds a valid PSC Proficiency in Survival Craft (PSC) endorsement	
All	14.1.A	The KUP is demonstrated by successfully completing the approved Leadership and Managerial Skills course	
E121-Steam	1.2.A	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Marine Steam Propulsion Plant
E121-Steam	1.2.B	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Marine Steam Propulsion Plant
E121-Steam	1.2.C	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Marine Steam Propulsion Plant
E121-Steam	1.2.D	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Marine Steam Propulsion Plant
E121-Steam	3.2.A	Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery	Start up and shut down main propulsion and auxiliary machinery, including associated systems. Operating limits of propulsion plant. The efficient operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery. Functions and mechanism of automatic control for main engine
E121-Steam	7.1.B	Manage safe and effective maintenance and repair procedures	Management techniques of maintenance and repair procedures related to main propulsion and auxiliary / ancillary machinery and equipment

E122-GT	1.3.A	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Gas Turbine Propulsion Plant
E122-GT	1.3.B	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Gas Turbine Propulsion Plant
E122-GT	1.3.C	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Gas Turbine Propulsion Plant
E122-GT	1.3.D	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Gas Turbine Propulsion Plant
E122-GT	3.3.A	Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery	Start up and shut down main propulsion and auxiliary machinery, including associated systems. Operating limits of propulsion plant. The efficient operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery. Functions and mechanism of automatic control for main engine
E122-GT	7.1.C	Manage safe and effective maintenance and repair procedures	Management techniques of maintenance and repair procedures related to main propulsion and auxiliary / ancillary machinery and equipment

E135-General Engineering	1.1.A	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Marine Diesel Engine Propulsion Plant
E135-General Engineering	1.1.B	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Marine Diesel Engine Propulsion Plant
E135-General Engineering	1.1.C	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Marine Diesel Engine Propulsion Plant
E135-General Engineering	1.1.D	Manage the operation of propulsion plant machinery	Design features, and operative mechanism of the following machinery and associated auxiliaries: Marine Diesel Engine Propulsion Plant
E135-General Engineering	2.1.A	Plan and schedule operations	<ol style="list-style-type: none"> 1. Thermodynamics and heat transmission 2. Mechanics and hydromechanics 3. Propulsive characteristics of diesel engines, steam and gas turbines, including speed, output and fuel consumption 4. Heat cycle, thermal efficiency and heat balance of the following: <ol style="list-style-type: none"> .1 Marine diesel engine .2 Marine steam turbine .3 Marine gas turbine .4 Marine steam boiler 5. Refrigerators and refrigeration cycle 6. Physical and chemical properties of fuels and lubricants 7. Technology of materials 8. Naval architecture and ship construction, including damage control
E135-General Engineering	3.1.A	Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery	Start up and shut down main propulsion and auxiliary machinery, including associated systems. Operating limits of propulsion plant. The efficient operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery. Functions and mechanism of automatic control for main engine

E135-General Engineering	3.4.A	By Course Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery	Functions and mechanism of automatic control for auxiliary machinery including but not limited to: .1 Generator distribution systems .2 Steam boilers .3 Oil purifier .4 Refrigeration system .5 Pumping and piping systems .6 Steering gear system .7 Cargo-handling equipment and deck machinery
E135-General Engineering	3.5.A	Operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery	The efficient operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery. Functions and mechanism of automatic control for auxiliary machinery
E135-General Engineering	4.1.A	Manage fuel, lubrication and ballast operations	Operation and maintenance of machinery, including pumps and piping systems
E135-General Engineering	7.1.A	Manage safe and effective maintenance and repair procedures	Management techniques of maintenance and repair procedures related to main propulsion and auxiliary / ancillary machinery and equipment

E135-General Engineering	8.1.A	<p style="text-align: right;">By Course</p> Detect and identify the cause of machinery malfunctions and correct faults	Detection of machinery malfunction, location of faults and action to prevent damage Inspection and adjustment of equipment Non-destructive examination
E135-General Engineering	9.1.A	Ensure Safe Working Practices	Safe Working Practices
E135-General Engineering	10.1.A	Control trim, stability and stress	1. Understanding of fundamental principles of ship construction and theories and factors affecting trim and stability and measures necessary to preserve trim and stability. Knowledge of the effect on trim and stability in the event of damage to and flooding of a compartment. Knowledge of IMO recommendations concerning ship's stability.
E135-General Engineering	13.1.A	Develop emergency and damage control plans and handle emergency situations	Ship construction, including damage control

Approved MEEC Course	5.1.	Manage the operation of electrical, electronic and control equipment	The KUP is demonstrated by successfully completing the approved Management of Electrical and Electronic Control Equipment (MEECE) Course
Approved MEEC Course	6.1	Manage troubleshooting, restoration of electrical and electronic control equipment to operating condition	The KUP is demonstrated by successfully completing the approved Management of Electrical and Electronic Control Equipment (MEECE) Course