

ENGINEERING TECHNOLOGY

The mission of the Engineering Technology department is to educate students who will become professionals within the maritime, facilities engineering, and power generation industries. This department emphasizes learn by doing through its extensive laboratories, simulators, and time at sea, which strongly support the foundational engineering coursework. Graduates will have already completed professional experiences prior to graduation and will be Day One-ready going into industry.

The Department of Engineering Technology offers two Bachelor of Science degree programs: Facilities Engineering Technology (FET) and Marine Engineering Technology (MET).

Both programs provide practical experience operating power generation equipment and develop proficiency in large-scale industrial and grid-level systems, including power distribution, energy storage, and management.

The FET program provides an undergraduate education for careers in large-scale facilities such as commercial buildings, power plants, and manufacturing plants. FET graduates must complete three practical training experiences: one sea training period aboard Training Ship *Golden Bear* and two industry co-operative education opportunities.

The MET program provides an undergraduate education for careers both at sea, aboard commercial and military vessels, and on land in ports, shipyards, and energy production. MET graduates must complete three practical training experiences at sea: two sea training periods aboard Training Ship *Golden Bear* and one sea training period aboard a military or commercial vessel. MET graduates earn a U.S. Coast Guard Third Assistant Engineer license, which qualifies them for careers aboard commercial and military vessels worldwide, as part of their degree program. Graduation from the MET program requires satisfactory completion of a qualifying examination administered by the U.S. Coast Guard to become a Third Assistant Engineer, Steam and Motor Vessels, Unlimited Horsepower.

Undergraduate Programs

- Facilities Engineering Technology (BS) (<https://catalog.calpoly.edu/engineering/engineering-technology/facilities-engineering-technology-bs/>)
- Marine Engineering Technology (BS) (<https://catalog.calpoly.edu/engineering/engineering-technology/marine-engineering-technology-bs/>)

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CEP Courses

CEP 2250 Mechanical Engineering Industry Cooperative I (3 units)

Term Typically Offered: SU

Prerequisite: ME 205 or ME 2205; and Sophomore standing.

First of two summer co-ops required for Mechanical Engineering program. Work onsite in an industry, research facility, or research institution under a cooperative education training agreement for a specified period of time. Practical work and current research experiences. Experiences will vary with the participating companies, facilities, and institutions. Work in a paid position under a degreed engineering supervisor in cooperation with the Career Development Center. Formerly CEP 250 at Cal Maritime.

CEP 2270 Facilities Engineering Technology Industry Cooperative I (3 units)

Term Typically Offered: SU

First of two summer co-ops required for the Facilities Engineering Technology major. Work in industry under a cooperative education training agreement by working onsite for a specified period of time. Current and practical work experience with various facilities. Prerequisite Sophomore standing; and CRU 150 or CRU 1150. Formerly CEP 270 at Cal Maritime.

CEP 3330 International Strategy and Security Cooperative (3 units)

Term Typically Offered: SU

Prerequisite: GMA 100 or GMA 1100; and GMA 105 or GMA 1105.

Provides experience in industry, government and NGO settings in areas relevant to the ISS major. Apply classroom knowledge to real-world issues and bring the work experience back to the classroom to enrich their academic understanding of maritime policy concerns. Specific experience varies, but includes written and oral communication skills, applied knowledge and opportunities for in-depth appreciation of a specific aspect of maritime security, environmental and other policy issues. Generally taken during the third summer, but may be done at any time with the permission of the Co-Op Coordinator and Department Chair. Formerly CEP 330 at Cal Maritime.

CEP 3350 Mechanical Engineering Industry Cooperative II (3 units)

Term Typically Offered: SU

Prerequisite: Junior standing; and CEP 250 or CEP 2250.

Second and final of two co-ops required for the Mechanical Engineering program. Work onsite in an industry, research facility, or research institution under a cooperative education training agreement for a specified period of time. Practical work and current research experiences. Experiences vary with the participating companies, facilities, and institutions but should include teamwork, communication, and engineering design problem-solving opportunities. Work in a paid position under a degreed engineering supervisor in cooperation with the Career Development Center. Formerly CEP 350 at Cal Maritime.

CEP 3370 Facilities Engineering Technology Industry Cooperative II (3 units)

Term Typically Offered: SU

Second and final of two cooperative education courses required by the Facilities Engineering Technology Program. Work in industry under a cooperative education training agreement by working onsite for a specified period of time. Current and practical work experience with various facilities. Prerequisite Junior standing; and CEP 270 or CEP 2270. Formerly CEP 370 at Cal Maritime.

EPO 1110 Plant Operations I (1 unit)

Term Typically Offered: F, SP

CR/NC

Inspection, maintenance, and repair of marine machinery and systems aboard the training ship. Safe and proper use of hand and power tools and the identification and repair of valves, pumps, fittings, piping, switches, controllers, and circuit breakers. Credit/No Credit grading only. 1 laboratory. Formerly EPO 110 at Cal Maritime.

EPO 1125 Introduction to Marine Engineering (3 units)

Term Typically Offered: F, SP

Concurrent: EPO 125L or EPO 1125L. Corequisite: EPO 110 or EPO 1110.

Introduction to marine engineering common shipboard systems, their function, arrangement, major components and principles of operation. Engineering systems aboard the Training Ship reinforce engineering system concepts. Shipboard practical training with the watch routine and safety equipment in preparation for follow-on practical training at sea. 3 lectures. Formerly EPO 125 at Cal Maritime.

EPO 1125L Introduction to Marine Engineering Laboratory (1 unit)

Term Typically Offered: F, SP

Concurrent: EPO 125 or EPO 1125. Corequisite: EPO 110 or EPO 1110.

Introduces primary engineering systems aboard the Training Ship. Shipboard familiarity while studying and tracing key systems such as engine jacket water, fuel oil, lubrication, cooling, and starting air. Additional topics include measurement methods, gear train and clutch, environmental protection, distillation, firefighting, and safety practices with essential marine engineering operations. 1 laboratory. Formerly EPO 125L at Cal Maritime.

EPO 2210 Plant Operations II (1 unit)

Term Typically Offered: F

CR/NC

Prerequisite: EPO 110 or EPO 1110.

Continuation of the practical work performed on the training ship or in facilities maintenance lab. Equipment maintenance on diesel engines, air compressors, generators, electrical equipment and pumps. Credit/No Credit grading only. 1 laboratory. Formerly EPO 210 at Cal Maritime.

EPO 2213 Welding Laboratory (1 unit)

Term Typically Offered: F, SP

Provides experience in welding, brazing, cutting, and burning techniques sufficient to effect emergency repairs and routine maintenance of engineering structures and systems. 1 laboratory. Formerly EPO 213 at Cal Maritime.

EPO 2214 Boilers (3 units)

Term Typically Offered: F, SP

Prerequisite: EPO 125 or EPO 1125.

Comprehensive study of fossil fuel steam generators, with emphasis on marine propulsion plants. The principles of boiler design and construction, boiler auxiliaries, principles of combustion, heat recovery equipment, automated boiler controls, and boiler water treatment. Prepares students for the steam plant section of the U.S. Coast Guard Third Assistant Engineer's Exam. 3 lectures. Formerly EPO 214 at Cal Maritime.

EPO 2215 Manufacturing Processes I (1 unit)

Term Typically Offered: F

Introduction to machine shop practices utilizing engine lathes and milling machines, precision measuring instruments, and hand tools. Execute designs developed in prior graphics design courses. 1 laboratory. Formerly EPO 215 at Cal Maritime.

EPO 2217 Shipboard Medical (1 unit)

Term Typically Offered: F, SP

Prerequisite: Senior standing.

Practical applications and the principles of First Aid and Medical Care. Includes body structure and function, resuscitation techniques, and bleeding control. Shock management, burns and scalds, cold and heat effects, rescue and casualty transport, toxicological hazards, spinal injuries, fractures, dislocation and muscular injuries, radio medical advice, pharmacology, sterilization, cardiac arrest and drowning. 1 laboratory. Formerly EPO 217 at Cal Maritime.

EPO 2220 Diesel Engineering I (1 unit)

Term Typically Offered: F, SP

Concurrent: EPO 220L or EPO 2220L.

Introduction to the internal combustion engine utilized by industry and merchant vessels. Includes basic theory, history of the diesel engine, gas exchange process, engine types, engine construction, engine parts, fuel injection, and merchant vessel propulsion. Emphasis given to the crosshead type slow-speed diesel engine. Preparation for the motor section of the USCG Third Assistant Engineer examination. 1 lecture. Formerly EPO 220 at Cal Maritime.

EPO 2220L Diesel Engineering I Laboratory (1 unit)

Term Typically Offered: F, SP

Concurrent: EPO 220 or EPO 2220.

Laboratory supporting Diesel Engineering I. 1 laboratory. Formerly EPO 220L at Cal Maritime.

EPO 2230 Steam Plant System Operations (1 unit)

Term Typically Offered: F, SP

Prerequisite: EPO 125 or EPO 1125; and CRU 150 or CRU 1150. Corequisite: EPO 214 or EPO 2214.

Introduction to the engineering systems, operating and emergency procedures, and watch requirements of a steam propulsion plant. Experience in the Steam Plant Simulator. 1 laboratory. Formerly EPO 230 at Cal Maritime.

EPO 2235 Steam Plant Watch Team Management (1 unit)

Term Typically Offered: F, SP

Prerequisite: EPO 214 or EPO 2214; and EPO 230 or EPO 2230.

Fault analysis techniques for steam propulsion plants, communication skills in a work environment, and management abilities. Experience in the Steam Plant Simulator. 1 laboratory. Formerly EPO 235 at Cal Maritime.

EPO 3310 Plant Operations III (1 unit)

Term Typically Offered: SP

Prerequisite: EPO 210 or EPO 2210.

Practical work performed on the training ship or in facilities maintenance. Supervision of equipment maintenance. Rotation in working on main propulsion, electrical, and auxiliary equipment. 1 laboratory. Formerly EPO 310 at Cal Maritime.

EPO 3312 Turbines (3 units)

Term Typically Offered: F, SP

Prerequisite: EPO 214 or EPO 2214.

Study of steam turbines, condensers, reduction gears, propulsion shafting, and gas turbines, with emphasis on marine propulsion plants. Steam and gas turbine controls, the thermodynamic principles of efficient steam plant operation, and operation and maintenance of turbines and their auxiliary systems are also included. Preparation for the steam plant section of the U.S. Coast Guard Third Assistant Engineer's Exam. 3 lectures. Formerly EPO 312 at Cal Maritime.

EPO 3315 Manufacturing Processes II (1 unit)

Term Typically Offered: SP

Prerequisite: EPO 215 or EPO 2215.

A continuation of Manufacturing Processes I, emphasizing work on metal lathes and vertical milling machines. 1 laboratory. Formerly EPO 315 at Cal Maritime.

EPO 3319 Facilities Engineering Diagnostics Laboratory (1 unit)

Term Typically Offered: F

Prerequisite: CRU 150 or CRU 1150.

Theory and application to machinery maintenance of vibration analysis, oil analysis, machinery alignment, thermography, and overall plant performance analysis. Study of various machinery maintenance programs applied to facilities engineering systems, including machinery history, trend analysis, and predictive maintenance. 1 laboratory. Formerly EPO 319 at Cal Maritime.

EPO 3321 Introduction to Power Generation Plants (1 unit)

Term Typically Offered: SP

Prerequisite: EPO 220 or EPO 2220.

Introduction to the operation, performance, and maintenance of simple cycle gas turbine, medium-speed reciprocating power generation systems, combined cycle gas turbine, and steam turbine power plants. The emphasis of this course is Power Plant Management and will train the students in common power plant systems and how they interact with each other. 1 laboratory. Formerly EPO 321 at Cal Maritime.

EPO 3322 Diesel Engineering II/Simulator (1 unit)

Term Typically Offered: F, SP

Prerequisite: EPO 220 or EPO 220. Concurrent: EPO 322L or EPO 3322L.

Engineering systems and components associated with diesel power plants. Includes exhaust treatment equipment and advanced engine technologies applied to the reduction of harmful emissions. Practical training in diesel engine systems, normal operations and maintenance, and casualty procedures. 1 lecture. Formerly EPO 322 at Cal Maritime.

EPO 3322L Diesel Engineering II/Simulator Laboratory (1 unit)

Term Typically Offered: F, SP

Prerequisite: EPO 220 or EPO 2220. Concurrent: EPO 322 or 3322.

Use Diesel Plant Simulator to operate a heavy-fuel diesel-propulsion plant under normal operating and emergency conditions. Diagnose combustion and machinery faults representative of those encountered in operating diesel power plants. Engine Team Management techniques utilizing the simulator as an instructional tool to train using good communication and problem solving even during stressful conditions. 1 laboratory. Formerly EPO 322L at Cal Maritime.

EPO 3343 Refrigeration & A/C (1 unit)

Term Typically Offered: SP

Prerequisite: ME 240 or ME 2241.

Introduction to refrigeration and air conditioning systems on merchant vessels. Basic thermodynamics theories of refrigeration systems: compressors, condensers, evaporators, control devices. Environmental regulations and requirements. Operational procedures: maintenance, troubleshooting and repair. 1 laboratory. Formerly EPO 343 at Cal Maritime.

EPO 3390 Independent Study (1-3 units)

Term Typically Offered: F, SP, SU

Prerequisite: Consent of instructor.

Substantial study above and beyond the regular offerings in the Academy catalog. Arrange with an Academy faculty member to be the Independent Study Advisor. Approved Application for Independent Study must be on file in the Office of the Registrar. Formerly EPO 390 at Cal Maritime.

EPO 3395 Special Topics (1-3 units)

Term Typically Offered: F, SP, SU

Prerequisite: Consent of instructor.

Special topic courses are intended to enable each department to offer an elective course of study when faculty scholarship activities, the expertise of visiting faculty, or off-campus educational programs may afford a unique and worthwhile learning experience. 1 to 3 lectures. Formerly EPO 395 at Cal Maritime.

ET 1110 Introduction to Engineering Technology (1 unit)

Term Typically Offered: F

Introduction to the engineering technology profession and curriculum. Engineering education, academic success strategies, and career opportunities. Field trips required. 1 lecture. Formerly ET 110 at Cal Maritime.

ET 2230 Properties of Materials (2 units)

Term Typically Offered: SP

Prerequisite: CHE 110 or CHE 1110; CHE 110L or CHE 1110L; and MTH 210 or MTH 2210.

Examination of the properties of materials from the atomic to the macroscopic levels, looking at crystal structures and the application of materials to engineering systems. Emphasis is on metals, and nonmetals. Mechanical properties, creep, fatigue, corrosion and failure characteristics. Current usage of advanced materials. 2 lectures. Formerly ET 230 at Cal Maritime.

ET 2230L Properties of Materials Laboratory (1 unit)

Term Typically Offered: F

Prerequisite: CHE 110 or CHE 1110; CHE 110L or CHE 1110L; ET 230 or ET 2230; and MTH 210 or MTH 2210.

Investigates the physical characteristics of materials through testing, data acquisition, and calculations. Tests conducted include tensile, fatigue, creep, impact energy, and hardenability. Learn how properties are derived. 1 laboratory. Formerly ET 230L at Cal Maritime.

ET 2232 Statics (3 units)

Term Typically Offered: SP

Prerequisite: MTH 210 or MTH 2210; PHY 200 or PHY 2200; and PHY 200L or PHY 2200L.

Force systems and the conditions of equilibrium for particles and rigid bodies are studied in two and three dimensions. Principles of equilibrium, moments, and dry friction are applied to engineering system components and structures. 3 lectures. Formerly ET 232 at Cal Maritime.

ET 2250 Electrical Circuits (3 units)

Term Typically Offered: F

Prerequisite: MTH 211 or MTH 2211; and PHY 205 or PHY 2205. Concurrent: ET 250L or ET 2250L.

Principles and applications of DC and AC circuit analysis, node and mesh equations, Thevenin equivalent circuits, maximum power transfer, first order transients, simple filters and amplifiers, phasors, power, power factor, and reactive power in single-phase systems. 3 lectures. Formerly ET 250 at Cal Maritime.

ET 2250L Electrical Circuits Laboratory (1 unit)

Term Typically Offered: F

Prerequisite: MTH 211 or MTH 2211; and PHY 205 or PHY 2205. Concurrent: ET 250 or ET 2250.

Application of circuit elements and principles in laboratory measurements and analysis. 1 laboratory. Formerly ET 250L at Cal Maritime.

ET 3330 Dynamics (3 units)

Term Typically Offered: F

Prerequisite: ET 232 or ET 2232.

Force systems and motion of particles and rigid bodies are studied in two and three dimensions. Principles of dependent and relative motion, work and energy, conservation of energy, and impulse and momentum are applied to engineering system components. 3 lectures. Formerly ET 330 at Cal Maritime.

ET 3332 Strength of Materials (3 units)

Term Typically Offered: F

Prerequisite: One of the following: ET 232, ET 2232, ME 232, or ME 2232; and MTH 211 or MTH 2211.

Basic concepts in strength of materials: normal, shear, bending, and bearing stress. Stress-strain relation and design properties of materials. Practical application of structure calculations for sizing bolts, rivets, shafts, beams, columns, and pressure vessels. 3 lectures. Formerly ET 332 at Cal Maritime.

ET 3340 Fluid Mechanics (3 units)

Term Typically Offered: SP

Prerequisite: MTH 211 or MTH 2211; and PHY 205 or PHY 2205. Concurrent: ET 340L or ET 3340L.

Application of principles of incompressible fluid flow. Includes forces in static fluids and fluids in motion, applications of Bernoulli's equation, pressure losses in pipe systems, open channel flows, pump selection, and air flow in ducts. 3 lectures. Formerly ET 340 at Cal Maritime.

ET 3340L Fluid Mechanics Laboratory (1 unit)

Term Typically Offered: SP

Prerequisite: MTH 211 or MTH 2211; and PHY 205 or PHY 2205. Concurrent: ET 340 or ET 3340.

Laboratory supporting Fluid Mechanics. 1 laboratory. Formerly ET 340L at Cal Maritime.

ET 3342 Refrigeration and Air Conditioning (2 units)

Term Typically Offered: SP

Prerequisite: One of the following: ET 344, ET 3344, ME 240, or ME 2240. Concurrent: ET 342L or ET 3342L.

Introduction to basic refrigeration and air conditioning principles and equipment. Theory and application of direct and indirect refrigeration cycles commonly found on merchant ships and ashore including main cargo freezers, air conditional systems, chill water systems, absorption systems, refrigerated vans, and ice machines. 2 lectures. Formerly ET 342 at Cal Maritime.

ET 3342L Refrigeration and Air Conditioning Laboratory (1 unit)

Term Typically Offered: SP

Prerequisite: ET 344 or ET 3344. Concurrent: ET 342 or ET 3342.

Refrigeration and air conditioning laboratory. 1 laboratory. Formerly ET 342L at Cal Maritime.

ET 3344 Thermodynamics (3 units)

Term Typically Offered: F

Prerequisite: PHY 200 or PHY 2200; and PHY 200L or PHY 2200L.

Basic laws of thermodynamics and their applications to heat-power machinery applied on shipboard heat-power plants, steam and gas turbines, internal combustion engines, and vapor-compression refrigeration systems. 3 lectures. Formerly ET 344 at Cal Maritime.

ET 3350 Electrical Machinery (3 units)

Term Typically Offered: F

Prerequisite: ET 250 or ET 2250, and ET 250L or ET 2250L; or ENG 250 or ENG 2250, and ENG 250L or ENG 2250L. Concurrent: ET 350L or ET 3350L.

Principles and application of magnetic circuits and transformers, three phase power, power factor correction, DC motors and generators, three phase AC motors and alternators, single-phase motors, stepper motors, electronic motor control, and circuit protection devices. 3 lectures. Formerly ET 350 at Cal Maritime.

ET 3350L Electrical Machinery Laboratory (1 unit)

Term Typically Offered: F

Prerequisite: Prerequisite: ET 250 or ET 2250, and ET 250L or ET 2250L; or ENG 250 or ENG 2250, and ENG 250L or ENG 2250L. Concurrent: ET 350 or ET 3350.

Application of the principles from electrical machinery in laboratory measurements and analysis. 1 laboratory. Formerly ET 350L at Cal Maritime.

ET 3370 Electronics (3 units)

Term Typically Offered: SP

Prerequisite: COM 220L or COM 2220L; ET 250 or ET 2250; and ET 250L or 2250L. Concurrent: ET 370L or ET 3370L.

Principles and application of electronic circuits and components, microcontrollers, operational amplifiers, comparators, peak detectors, active filters, timer circuits, AD conversion, serial communication, and micro electro-mechanical systems. 3 lectures. Formerly ET 370 at Cal Maritime.

ET 3370L Electronics Laboratory (1 unit)

Term Typically Offered: SP

Prerequisite: COM 220L or COM 2220L; ET 250 or ET 2250; and ET 250L or 2250L. Concurrent: ET 370 or ET 3370.

Application of the principles from Electronics in laboratory measurements and analysis, followed by a comprehensive team project. 1 laboratory. Formerly ET 370L at Cal Maritime.

ET 4400 Instrumentation and Measurement (3 units)

Term Typically Offered: F

Prerequisite: ET 370 or ET 3370; and ET 370L or ET 3370L. Concurrent: ET 400L or ET 4400L.

Instrumentation devices and their uses in monitoring processes. Instrumentation used for measuring temperature, pressure, level, flow, position and motion as well as other types of analytical measurement are studied. Principles of signal conditioning including op-amp applications, filtering, applications to pneumatic systems, and digital signal conditioning. Relationship to modern data acquisition systems and how to optimize measurements and effectively analyze measured signals. 3 lectures. Formerly ET 400 at Cal Maritime.

ET 4400L Instrumentation and Measurement Laboratory (1 unit)

Term Typically Offered: F

Prerequisite: ET 370 or ET 3370; and ET 370L or ET 3370L. Concurrent: ET 400 or ET 4400.

Lab designed to introduce instrumentation and measurement. Includes studies involving signal conditioning, Wheatstone bridge applications, use of operational amplifiers for signal conditioning, Boolean logic, thermal transducers, strain gage measurements, variable capacitance transducers, and optical transducers. Computer-based data acquisition. 1 laboratory. Formerly ET 400L at Cal Maritime.

ET 4442 Heating, Ventilation, and Air Conditioning (2 units)

Term Typically Offered: F

Prerequisite: ET 342 or ET 3342; and ET 342L or ET 3342L. Concurrent: ET 442L or ET 4442L.

Application of thermodynamics with regard to refrigeration/air conditioning cycle. Focus on the HVAC requirements of facilities with application to ships as well as any facility. Examination of design of HVAC systems, including heat balance, duct design and fan selection. 2 lectures. Formerly ET 442 at Cal Maritime.

ET 4442L Heating, Ventilation, and Air Conditioning Laboratory (1 unit)

Term Typically Offered: F

Prerequisite: ET 342 or ET 3342; and ET 342L or ET 3342L. Concurrent: ET 442 or ET 4442.

Laboratory supporting Heating, Ventilation, and Air Conditioning course. 1 laboratory. Formerly ET 442L at Cal Maritime.

ET 4460 Automation (3 units)

Term Typically Offered: SP

Prerequisite: ET 400 or ET 4400; and ET 400L or ET 4400L. Concurrent: ET 460L or ET 4460L.

Automation in power plants, engineering processes, and manufacturing processes leading to an understanding of modern control systems. Principles of analog and digital control systems as well as measurement methods and final control valves and actuators. PID (proportional plus integral plus derivative) control applications and programmable logic controllers. Investigate modeling, measurement and control of mechanical, thermal, fluid, and electrical systems. 3 lectures. Formerly ET 460 at Cal Maritime.

ET 4460L Automation Laboratory (1 unit)

Term Typically Offered: SP

Prerequisite: ET 400 or ET 4400; and ET 400L or ET 4400L. Concurrent: ET 460 or ET 4460.

Principles introduced and discussed in Automation. Introduction to the concepts of closed loop control, PLC (programmable logic controllers) programming, pneumatic logic and control applications, frequency response in systems (Bode plots), and process loop tuning methods. 1 laboratory. Formerly ET 460L at Cal Maritime.

ET 4470 Engineering Management (3 units)

Term Typically Offered: F

Prerequisite: Junior standing; EGL 220 or EGL 2220.

Introduction to the engineering profession with a focus on total quality management, personnel management, project management, legal concerns, professional liability, and ethics. 3 lectures. Formerly ET 470 at Cal Maritime.

ET 4490 Power Engineering Technology (3 units)

Term Typically Offered: SP

Prerequisite: ET 344 or ET 3344; ET 350 or ET 3350; and ET 350L or ET 3350L. Concurrent: ET 490L or ET 4490L.

Capstone course in engineering technology. Apply the engineering fundamentals of previous thermodynamics and electrical machinery to studies of combustion processes, combustion by-products and emission abatement and electrical distribution and transmissions systems commonly found in modern marine propulsion plants and the power industry. Familiarization with renewable energy resources. Field trip may be required. 3 lectures. Formerly ET 490 at Cal Maritime.

ET 4490L Power Engineering Technology Laboratory (1 unit)

Term Typically Offered: SP

Prerequisite: ET 344 or ET 3344; ET 350 or ET 3350; and ET 350L or ET 3350L. Concurrent: ET 490 or ET 4490.

Perform thermodynamic analyses of operating power generation equipment. 1 laboratory. Formerly ET 490L at Cal Maritime.