

## **ADVANCED ENGINEER EQUIPMENT ELECTRICAL SYSTEM TECHNICIAN**

### **COURSE INFORMATION:**

**PREREQUISITES:** Corporal through Staff Sergeant, graduate of M03UAA2 - Basic Engineer Equipment Electrical Systems Technician course with 18 months experience in MOS 1142 or M0311D2 - Basic Refrigeration and Air Conditioning Technician Course with 18 months experience in MOS 1161, and a minimum of 12 months remaining in current enlistment upon course completion.

Certification of current sustainment for T&R event Conduct an Operational Risk Assessment (ORA).

Completion of MCI 1142B - Solid State Devices is required.

Completion of MCI 2820 - Electronic Mathematics for Marines, MCI 286G - Fundamentals of Digital Logic, MCI 1335C - Fundamentals of Diesel Engines, and MCI 1161 - Fundamentals of Refrigeration are recommended.

MOS 1142 and 1161 Lance Corporal with 18 months experience and a minimum of one year remaining in current enlistment may attend with a waiver by Utilities Instruction Company Academic Officer or Academics Chief.

**PURPOSE:** To provide designated advanced level training to Engineer Equipment Electrical Systems Technicians (MOS 1142) and Refrigeration and Air Conditioning Technician (MOS 1161) in compliance with the training continuum required by the Operating Forces.

**SCOPE:** This course is designed to impart advanced knowledge, skills and abilities to diagnose malfunctions of more complex engineer equipment electrical systems at the organizational and intermediate levels of field maintenance. The course consists of instruction in the integrated electrical systems of the Integrated Trailer/Environmental Control Unit (ECU)/Generator (ITEG II); the interaction between electrical and hydraulic systems of Material Handling Equipment (MHE); using the Caterpillar Electronic Tool (CAT E TOOL), along with reprogramming of fault codes and parameters on controls of tactical generator sets; electrical control of refrigerant systems and heater elements of Environmental Control Units (ECU); and diagnosing malfunctions to the electrical systems of Tactical Water Purification Systems (TWPS) and Containerized Batch Laundry (CBL) units. Diagnosis and repair of electrical

starters and alternators is also covered along with safety programs, managing equipment maintenance, and conducting unit training.

**REPORTING INSTRUCTIONS:**

GOVERNMENT MESSING IS DIRECTED AND AVAILABLE AT THE COURTHOUSE BAY CHOW HALL (BB-125). GOVERNMENT BILLETING IS DIRECTED AND AVAILABLE AT COURTHOUSE BAY IN THE UTILITIES INSTRUCTION COMPANY (UIC) BACHELOR ENLISTED QUARTERS (BEQ), BUILDING BB-250, OR AT A COST FOR STAFF SERGEANTS AT THE BACHELOR OFFICER QUARTERS (BOQ), BUILDING BB-45.

EXCEPTION: Those students from the local area already approved for BAS/BAH at their parent command.

Students report to Commanding Officer, Marine Corps Engineer School, Courthouse Bay, Camp Lejeune, North Carolina. During working hours, report to Building BB-12 (MCES Personnel Office), second building on the right (water side along Ellen Path) after turning left at the "Y" at the end of Horn Road (Marines Road). After working hours, report to the AOOD at Building BB-28 (Headquarters, MCES), second building on the left after entering Courthouse Bay (at the intersection of Horn Road and Command Drive). All students will report with Original Orders, Medical Records, and Dental Records. Students will report in service "Alpha" uniform. Graduation uniform will be the seasonal service "Bravo" or "Charlie" uniform.

For more information see the MCES website at:

<http://www.trngcmd.marines.mil/mces>

During working hours, contact the Academic Chief at COMM: (910) 440-7346 / DSN: 758-7346 or the Course Programmer at COMM: (910) 440-7340 / DSN: 758-7340. After working hours, contact the AOOD at COMM: (910) 440-7275 / DSN: 758-7275.