

Los Medanos College
Certificate of Achievement in Transit Electrical Technology
Narrative

Criteria A. Appropriateness to Mission

1. Statement of Program Goals and Objectives:

Transit agencies across the nation are facing issues of retirement, lack of trained personnel and an increase in technical requirements as the industry seeks to enhance efficiencies, modernize, and accommodate a growing population of riders. This new program is focusing on the technical trades of Electrical and Electronic specialization for entry level transit maintenance worker classifications with an annual starting pay from \$59,475 to \$77,745.

The goal of the Certificate of Achievement in Transit Electrical Technology is to train students for the skills required by the technical positions which include: diagnosing operational problems in heavy industrial electrical equipment and systems and determining parts and labor required for repairs; performing preventive maintenance on electrical systems and equipment; assessing and troubleshooting electronic, electrical and mechanical yard and train control equipment problems down to the component level; installing, repairing and maintaining yard and train control equipment.

2. Catalog Description

CERTIFICATE OF ACHIEVEMENT
TRANSIT ELECTRICAL TECHNOLOGY

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REQUIRED COURSES:

ETEC-010 Direct Current Circuits	4
ETEC-012 Alternating Current Circuits	4
ETEC-020 Electric Motor Control	3
ETEC-022 Semiconductor Devices	2
ETEC-024 Digital Devices	2
ETEC-040 National Electrical Code	3
ETEC-042 Wiring Methods and Code Application	1
ETEC-044 Power Distribution & Transformers	3
ETEC-046 DC & AC Motors & Generators	3
TOTAL UNITS FOR THIS CERTIFICATE	25

Program Student Learning Outcomes

1. Gain entry-level or mid-level employment in the transit electrical field.
2. Troubleshoot, analyze, operate, repair, and install electrical & electronics equipment.
3. Communicate the technical status of equipment in writing and verbally; be able to work and communicate with teams.
4. Safely use electrical and electronics test equipment.
5. Demonstrate the operational concepts of equipment and technology used in the electrical or electronics field.
6. Demonstrate the skills and knowledge necessary to take and pass certification exams for career advancement in transit electrical fields.