

RIVERSIDE COMMUNITY COLLEGE DISTRICT PROGRAM OUTLINE of RECORD

College: R__ M__ N_X__

TOPs Code: 0952.20

Facility Maintenance

PROGRAM PREREQUISITE:

None.

SHORT DESCRIPTION of PROGRAM

This program prepares residents to become an entry-level Facility Maintenance Technician. This certificate program is designed to provide students with the skills they need to be successful technicians. Students will gain skills in: safety standards, technical math, blueprint reading, safety, troubleshooting, preventative maintenance, drive components, lubrication, bearings, wiring methods, hydraulics, pneumatics, basic electricity, technical communication and more. Students will also build skills in electronics, computerized equipment maintenance and preventative and corrective maintenance. Students will learn and apply maintenance methods to repair and maintain commercial or industrial machinery in buildings, in a plant or factory setting, and ensure the machines' proper functionality.

Individuals with this experience will serve in roles that maintain commercial and industrial buildings, multi-housing units, hotels, and medical facilities. Their role will be to maximize the operational life of industrial facilities. Technicians also repair and maintain commercial or industrial machinery in buildings, in a plant or factory setting, and ensure the proper functionality of machines and equipment.

This program prepares students for jobs such as field service technician, industrial maintenance technician, maintenance mechanic, or maintenance repair mechanic.

PROGRAM LEARNING OUTCOMES

Upon successful completion of this program, students should be able to:

- Apply maintenance fundamentals to simulated and actual workplace applications.
- Identify the terms used in industry in the subject areas of maintenance, including welding, HVAC, industrial wiring, and electrical concepts.
- Apply preventative and corrective maintenance methods and be able to develop a maintenance action plan.
- Demonstrate the fundamentals of industrial fluid power, which includes pneumatic, hydraulic, and electrical theory.
- Demonstrate the fundamentals of mechanical, electrical, and plumbing.
- Demonstrate an ability to read and understand blueprints and schematics.
- Identify teamwork and effective communication skills.
- Plan, construct and explain safe and proper electrical circuits, using industry standard components, according to blueprints and verbal instructions, while following National Electrical Code (NEC) and OSHA rules.
- Describe the general principles of direct or alternating current pertaining to a DC motor, AC motor, or generator.
- Troubleshoot and repair a given, complex configuration of maintenance equipment and create a thorough report, including necessary interactions with tools and safety standards.
- Understand a preventative maintenance program.
- Ensure compliance with Federal, State, and local regulations.
- Understand techniques for equipment installation.
- Gain skills for general repair and preventative maintenance of an industrial plant.
- Earn Certified Maintenance and Reliability Technician (CMRT) certification credential. (Earning the CMRT credential indicates a level of ability consistent with the requirements for competence on the job as a multi-skilled maintenance and reliability technician.)

Required Courses:	Units
MAN-55: Occupational Safety and Health Administration (OSHA) Standards for General Industry	2
ELE/MAN-##: Fundamentals of Tooling and Test Equipment <i>(new course-see attached)</i>	2
ELE/MAN-##: Fundamentals of Maintenance <i>(new course-see attached)</i>	4
ELE 10: Fundamentals of AC/DC Electronics (name change)	4
ELE/ENE-27: Technical Communications for Industry (name change)	3
ENE-51: Industrial Blueprint Reading (name change)	2
ELE/MAN-77: Survey of Electrical Trades	4
MAN-60: Hydraulic and Pneumatics Systems	3
ELE/CON-66: National Electrical Code (list as ELE)	3
ENE 60: Math for Industrial Trades (name change) or MAT 36: Trigonometry and higher.	3
Total Units:	30

Associate of Science Degree

The Associate of Science Degree in Facility Maintenance will be awarded upon completion of the degree requirements, including general education and other graduation requirements as described in the college catalog.