



Do You like...

- Working with electronics?
- Testing and repair?
- Working with computers?
- Reading diagrams and blueprints?
- Working with tools and technology?

If so, Electrical System Careers are for YOU!!

Electronic & Electrical Workers

Trainee level: Under general supervision, learns to perform and performs a variety of sub-journey level maintenance, repair, and installation duties on electrical circuits, motors, controls, and equipment used in large metropolitan water distribution and wastewater treatment facilities, energy companies, transportation and other industries.

Electronic & Electrical Technicians

Journey-level: Under general supervision, performs a wide variety of skilled technical duties in connection with maintaining, monitoring, testing, calibrating and repairing electronic and pneumatic equipment at water pollution system sites and control centers; performs periodic testing of and preventive maintenance on instrumentation and controls; and analyzes malfunctioning facilities or scientific research labs. This level is reached after 4-5 years of training.



Jobs Needed for the Future

Electrical Systems workers are needed today & into the future. This includes:

- Electrician/ Electrical Technician
- Electronic Maintenance Technician/Instrument Technicians

Monthly Pay	Apprentice – Trainee Level		Journey-Level	
	Minimum	Maximum	Minimum	Maximum
Electrician/ Electrical Technician	\$3,497	\$4,435	\$5,812	\$7,033
Electronic Maintenance/ Technician/ Instrument Technicians	\$3,959	\$4,883	\$6,006	\$7,417

Salary information source: Environmental Scan: Water and Wastewater Occupations Report, by Centers of Excellence and BAYWORK, November 2009.

*This brochure was developed by **BAYWORK**, a Bay Area Water and Wastewater Workforce Development Collaborative*

Instrument Control & Electrical Systems Careers

Water & Wastewater GREEN Industries





Power & Electrical Systems One-Year Certificate Program

The College of San Mateo offers a one year certificate Power & Electrical Systems training program .

The purpose of this certificate program is to increase potential job candidates' technical skills so companies can hire local talent in the communities where they provide power, water, wastewater and other services.

For more information, contact:
electricalpowersystems@smccd.edu
www.collegeofsanmateo.edu/technology/departments/electronics/degrees/html
Roy Brixen @ Brixen@smccd.edu

Electrical & Instrumentation Technology Two-Year Certificate Program

Los Medanos College offers a two year Electrical & Instrumentation Technology Certificate training Program.

For more information, contact:
www.losmedanos.edu
Cecil Nasworthy
925-439-2181, ext. 3455
cnasworthy@losmedanos.edu

**Don't Delay,
Start Your Career Today!!**



Typical Tasks in Electronics

- Read blueprints, wiring diagrams, schematic drawings, and engineering instructions for assembling electronic units, applying knowledge of electronic theory and components.
- Test electronics units, using standard test equipment, and analyze results to evaluate performance and determine need for adjustment.
- Perform preventative maintenance and calibration of equipment and systems.
- Assemble, test, and maintain circuitry or electronic components according to engineering instructions, technical manuals, and knowledge of electronics, using hand and power tools.
- Adjust and replace defective or improperly functioning circuitry and electronics components, using hand tools and soldering iron.

Future Trends

Within the next decade, the job market for electrical and instrument control technicians will grow rapidly. Because qualified workers are expected to be in short supply, those with ambition may see more opportunities for advancement, a choice of work locations and schedule flexibility, employer-supported training, and competitive wages and benefits. Take advantage of these future trends by getting started toward a certificate in Power & Electrical Systems by contacting the College of San Mateo or Los Medanos College today.



Typical Tasks in Electric Systems

- Provide technical assistance and resolution when electrical or engineering problems are encountered before, during, and after construction.
- Assemble electrical and electronic systems and prototypes according to engineering data and knowledge of electrical principles, using hand tools and measuring instruments.
- Install and maintain electrical control systems and solid state equipment.
- Modify electrical prototypes, parts, assemblies, and systems to correct functional deviations.
- Set up and operate test equipment to evaluate performance of developmental parts, assemblies, or systems under simulated operating conditions, and record results.



"4 out of 5 employers experience difficulty finding qualified Electronic Maintenance Technicians and Electricians."

Water and Wastewater Occupations Bay Region Labor Report, Centers of Excellence and BAYWORK, November 2009