

Solar PV Installation Training



2100 Moorpark Ave, San Jose, CA 95128

San Jose City College is offering training in solar systems installation that will lead to internships as solar photovoltaic installers. This program was developed in collaboration with industry to meet local workforce demand.

Course: Solar 102 – Introduction to Photovoltaic (PV) Installation

This course introduces the student to solar photovoltaic power systems and their installation. Upon successful completion the student will have basic knowledge for an entry level position in the field. The lab will provide hands-on experience with a variety of systems encountered in the industry. This course has been submitted to NABCEP as part of the entry level certification requirement.

Content:

<ol style="list-style-type: none">Jobsite Safety<ul style="list-style-type: none">Safety Hazards of PV systems, Safety EquipmentSolar Energy Fundamentals<ul style="list-style-type: none">Site shading, Sun path, irradiance, solar day, PathfinderMath Skills<ul style="list-style-type: none">Basic Trigonometry and GeometryConversion of feet to inches, tape measureElectricity Basics<ul style="list-style-type: none">Current, voltage, power, energy definitionsBasics of National Electrical Code (NEC)Ohms Law, Series/ Parallel CircuitsUse of Multimeter, Bending conduitUtilization of drawings and schematicsPV Modules Fundamentals<ul style="list-style-type: none">The components of a moduleTypes of modules, construction techniquesNominal versus actual output of a module	<ol style="list-style-type: none">System Components<ul style="list-style-type: none">Inverters, Charge controllersDisconnects, BatteriesWiresLabeling and documentationMechanical design<ul style="list-style-type: none">Racking SystemsTilt anglesTracking SystemsElectrical Design<ul style="list-style-type: none">Array configuration to meet inverter needsVoltage drop on long runsPerforming a system check out and inspection<ul style="list-style-type: none">Compare theoretical with actual system performanceTools to measure performanceBasic troubleshooting
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Hands on training: Testing and measuring solar cell characteristics; connecting modules in series; parallel, and to batteries and loads; conducting a site survey; use of hand and power tools; building: a roof mount system, a ground mount system and pole mount.

Potential students: Students should be comfortable on roofs and be physically able to lift and carry loads of 50-70 lbs. Students should have good reading and communication skills and basic math skills.

To Register: This class will fill quickly, so register early. New Students: File an application in person or apply online at www.sjcc.edu .

Then REGISTER by phone at 408-223-0300. Your PIN is your birthdate (e.g., April 4, 1989 = 040489), or register online.

More Information: Dr. Kathy Werle, Dean of Applied Science & Technology Division: **408-288-3781**

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