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## SECTION HEADING

### SOLR 1030: Solar Energy Construction Projects

#### Description

Solar Energy Construction Projects will cover the National Electrical Code (NEC) specifics concerning photovoltaic installation Article 690 and introduces students to basic construction skills installing photovoltaic systems along with safely and carefully works with roofing, how to plan and assemble racking, how solar modules and panels are mounted, and how the remaining solar components are incorporated. Residential systems and ground mount systems will be covered.

#### Credits

2

#### Prerequisite

None

#### Corequisite

None

#### Topics to be Covered

1. Proper safety and personal protective equipment
2. Basics of racking and mounting, structural considerations, hardware options, design and assembly.
3. Basic knowledge of solar photovoltaic
4. Balance of system function and mounting.
5. National Electrical Code (NEC)

#### Learning Outcomes

1. Describe major components of photovoltaic systems.
2. Describe the basic bonding methods for pipes, ducts and wires in solar systems.
3. Describe support structures and racking commonly used in solar installations.
4. Assemble systems according to technical drawings.
5. Practice working safely with power tools and roofs using personal protective equipment.
6. Locate applicable code requirements in the National Electrical Code (NEC) for PV systems

#### Credit Details

Lecture: 0

Lab: 2

OJT: 0

MnTC Goal Area(s): None