

PV101 - is your gateway to a career in the solar industry. It all starts with the fundamentals, and a solid



Describe DC-to-AC power ratio and how it applies to system design; when to use a higher or lower power ratio

Describe criteria for different power electronics options in PV systems

Determine the correct wiring configuration of PV modules and power electronics for a given application

Identify and describe characteristics of conductor materials and insulations

Determine color coding of conductors based on wire type and circuit characteristics

Identify terminology for the various circuits in PV systems

Determine maximum current for PV system circuits

Identify and describe considerations for selecting conductors to meet ampacity and voltage drop requirements

Explain the purpose and correct placement of disconnects and overcurrent protection

Perform basic overcurrent device sizing for DC and ACPV system circuits

Identify potential jobsite hazards and opportunities for additional safety training

Determine proper Personal Protective Equipment (PPE) for PV installation and commissioning tasks Describe lockout / tagout procedures

List 5 basic commissioning tests to be completed after a system is installed

#### Instructional Methods

The primary instructional method will be lecture through and practical hands-on activities and labs. Classes also will include small group projects and discussions. Reading assignments will require comprehension and ability to write review papers for credit. Be prepared for pop quizzes and exams based on lectures, reading, quest speakers, video media or any other form of teaching presentation.

### Explanation of Student Effort

student achievement that is an institutionally established equivalency that reasonably approximates not less than: 1) one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester, or 2) at least an equivalent amount of work for other academic activities as established by the institute, including laboratory work,

(https://www.uaf.edu/uafgov/faculty-

senate/curriculum/Academic%20Course%20and%20Degree%20Procedures%20Manual%202020.pdf)



Course Calendar

Included Separately: See Agenda and Schedule

Course Grading Scale:



#### 2.) Attendance, Tardiness, Class Participation, Make-up Exams

Regular attendance is necessary for success at the collegiate level. You are expected to actively participate in all classroom sessions. Make sure that you are prompt and that you stay for the scheduled class time. Experience has shown that due to the time constraints of this course your grade



jury service other emergency or obligatory situations

For more



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