

Laney College
Vocational Training Department

Course Name:	Introduction To Photovoltaics
Course Number/Code:	E/ET 208
Class Meeting Days/Times:	Monday and Wednesday afternoons, Rooms B130 & B120 Lecture 4:00pm-4:50pm, Lab 5:00pm-6:30pm.
Suggested Preparation:	Technical Math for Electricians, Basic Electricity, Residential House Wiring, and Commercial Wiring.
Course Description:	Theory and lab on Photovoltaic (solar) system wiring. Learn solar-safety in hands-on wiring. Learn installation practices installing solar arrays and their support systems. Learn system layout and design. Learn the Electrical Code and how it is applied to solar installations.
Student Learning Outcome:	Explain the theory and operation of Photovoltaic power generation. Determine the suitability for PV installation. Analyze collected site data, design the installation, and select equipment size and the type to produce projected performance. Create installation estimated costs and labor hours Following the national Electrical Code, safely wire the array to utility Power. Safely analyze array outputs and compare to those projected in the Design criteria.
Instructor:	Steve Weldon
Office Location & Phone	Room B122; (510) 464-3283
Office Hours:	Monday, 3pm until 4pm
Email	stweldon@peralta.edu
Required Textbook:	Dunlop, Jim. <u>Photovoltaic Systems, second edition</u> Homewood, Illinois: American Technical Publishers, Inc. 2010 ISBN 978-0-8269-1308-1
Required Supplies:	Notebook, writing implement, & cheap calculator.
Optional Tools:	Straight blade & Phillips screwdrivers, "lineman's pliers", wire stripper for #14, 12, & 10 AWG, 12' (minimum) tape measure, and straight claw hammer.
Grading Policy:	Homework, Quizzes, Tests, & Class Participation (20%) Hands-on Performance Assessments (30%) } = Course Grade Semester Notebook turned-in (20%) Final Exam (30%).
Attendance Policy:	Students absent four class days will have their overall course grade reduced a grade level. Class begins promptly 5 minutes after the hour and instructions will be given only once. If tardiness becomes a problem the door will be locked.
Withdrawal:	1. It is the responsibility of the student to withdraw (drop) from a class to receive a refund. 2. A student who quits attending after the designated period will receive a letter grade (an "F") on their permanent record.

Attend every class session. Read the book and answer end-of-chapter questions before coming to class. Be prepared to discuss the information and actively participate. Class starts on January 25 & ends on May 19. © Copyright January 2010, Stephen T. Weldon