**California State University, Dominguez Hills**

**CERTIFICATE PROGRAMS:**

1. **Solar Installation Certificate**

<http://www.csudh.edu/ee/solar.html>

**The Program**  
This class is an introduction to some of the latest techniques and standardizations for installing solar power systems. Half of this course is hands-on using tools of the trade to  
familiarize students with the workload and character of this industry. The other half is  
focused on exposing students to the tactical decisions, processes, and material choices  
common to this industry.

**Location**Solar Installation Certificate classes are held at California State University, Dominguez Hills in Carson. Classes are convenient for people who live or work in or near Los Angeles, Torrance, Long Beach, Carson, Compton, El Segundo, Palos Verdes, Manhattan Beach, Redondo Beach, Hermosa Beach, San Pedro, Hawthorne, Gardena, Lakewood, Paramount, Bellflower, Downey, Inglewood and other parts of the South Bay and Southern California.

**What You Will Learn**  
By the end of this course, the successful student will be able to:  
• Install a solar mounting system  
• Install a roof flashing  
• Define and identify solar power standalone systems and grid-tied systems.  
• Identify mounting hardware by name& tools to use for installing hardware  
• Identify common roof mounting challenges  
• Identify several different roofing types and types of installation complexity relating to  
each.  
• Identify grounding hardware by name, identify proper grounding techniques for a  
racking system, and describe why grounding is important.

**Employment Outlook**  
According to the Occupational Labor Handbook, job prospects are expected to be excellent, particularly for those who have completed training from an accredited technical school or a formal apprenticeship.

**Course Goals**  
Students that have finished this course will have the basic necessary skills to work within  
the supplemental solar power industry.

**Who Should Attend**  
• Anyone interested in the fast growing solar power industry.  
• Professionals interested in retraining into another industry  
• New to the workforce

1. Wind Energy Professional

<http://www.gatlineducation.com/unbranded/wind_energy_courses.html>

This entry-level Wind Energy Professional Online Training Program prepares you for a career in the wind energy industry. This online certificate program is offered in partnership with major colleges, universities, and other accredited education providers.

Objectives

Upon successful completion of this program, you’ll be able to:

Describe the evolution of wind turbine technology

Discuss air flow characteristics and blade efficiencies

Assess human resources and business planning policies, procedures, and processes

Explain contract management, fulfillment, and liability to the landowner and manufacturer

Discuss wind business policies and procedures

Explain atomic structure and basic values such as voltage, current, resistance, and power

1. Solar Power Professional

<http://www.gatlineducation.com/unbranded/solar_power_professional_coursemain.html>

In this program, you'll learn the fundamentals of photovoltaic solar powered energy systems, gaining the knowledge you'll need for an entry level position with a dealer, installer, or other photovoltaic industry company.

**OBJECTIVES**

Upon completion of this program you'll be able to:

Describe the history of PV technology and industry

Describe markets and applications for PV

Describe types of PV systems and their features and benefits.

Demonstrate an understanding of electrical and solar terminology

Identify safety hazards, practices, and protective equipment used during PV system installation and maintenance

Define basic electrical terms

Describe the use of a digital multi-meter

Calculate simple circuit values

Define basic solar terms

**Computer Science**

<http://www.csudh.edu/catalog/2011-2013/ComputerScience.shtml>

**CSC 255          Dynamic Web Programming**

**CSC 301          Computers and Society**

**CSC 451          Computer Networks**

**CSC 453          Data Management**

**CSC 455          World Wide Web Design and Management**

**CSC 459          Security Engineering**

**CSC 481          Software Engineering**

**CSC 546          Human Computer Interaction and Interface Design**

**CSC 551          Data Communications and Computer Networks**

**CSC 553 Advanced Database Management Systems**

**CSC 555          Information Assurance and Network Security**

**CSC 581          Advanced Software Engineering**

**CSC 583          Software Engineering Processes**

**CSC 584          Software Project Planning and Management**

**CSC 585          Advanced Software Quality Assurance**

**Computer Technology**

<http://www.csudh.edu/catalog/2011-2013/ComputerTechnology.shtml>

**CTC 310          Software Project Management**

**CTC 328          PC Forensic**

**CTC 362          Communication Systems Security**

**CTC 428          OS Security**

**CTC 452          Network Security and Hacking Prevention**