



**Go
GREEN!!**



**A PROFESSIONAL
TRAINING CENTER**

COURSE OFFERINGS

(Brief Descriptions, Hours & Cost)



A PROFESSIONAL
TRAINING CENTER

APTC FOR GREENJOBS!

Because our country's future depends on creating clean, sustainable energy, the demand for trained workers in green energy skills is growing exponentially.

A Professional Training Center (APTC) can help prepare individuals for work in the green technology field. APTC has a series of on-line classes to train you in skills that can lead to a better job, higher wages, and a cleaner environment for all.

We offer 28 online courses specializing in green technology, sustainable energy, and project management. Students can prepare for various certifications, i.e., Energy Star Professional and CALGreen Inspector as well as specialized exams for Building Performance Institute (BPI) and Leadership in Energy and Environmental Design (LEED) programs.

APTC is an approved school by the California Bureau for Private Postsecondary Education and is registered with CalJOBS, the State Employment Development Department site that helps workers find jobs and job training. We have trained employees for various state agencies, Department of Labor and many federal agencies, as well.

APTC's instructors are recognized experts in their field. They are top professionals with 5 to 30 years of hands on experience. Many of our instructors own businesses in green energy or environmental engineering.

Dorothy Devereux, CEO, has provided career training since 1992 and has more than 35 years experience in vocational evaluation, testing and ergonomics.

Please review our summary catalog of classes, hours and costs. If you would like additional information on enrollment or want to receive a complete and detailed program catalog, please contact us at:

A PROFESSIONAL TRAINING CENTER

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GREEN JOBS PROFESSIONAL TRAINING COURSES SUMMARY OF PROGRAMS AND COSTS

AEE BUILDING ENERGY SUSTAINABILITY TECHNICIAN

This course covers essential building energy efficiency concepts including financial considerations for equipment purchases, building utilities, energy audits, instrumentation, lighting, energy savings, HVAC systems, heating and refrigeration systems, controls, and compressed air systems. Course material is geared towards individuals with some prior experience in facilities maintenance, operations or building energy management.

This is a one-of-a-kind opportunity for individuals looking to gain building energy-management efficiency skills and certification. The course teaches the energy savings design guides for buildings developed through the partnership between the U.S. Department of Energy Building Technologies program and the American Society of Heating, Refrigeration, and Air Conditioning Engineers, the American Institute of Architect, the Illuminating Engineering Society of North America, and the U.S. Green Building Council.

The training includes principles of building energy, utilities and costs, economics, energy measurement, instrumentation, energy efficient lighting, HVAC and water heating, heat transfer and automation systems, mechanical systems, cogeneration systems, boilers, and maintenance and commissioning

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 36 HOURS COST -- \$3,590

BASIC MATH FOR ENERGY PROFESSIONALS

Math basics for energy professionals serves as a refresher for the mathematical formulas used in the green and energy efficiency field.

This is a computer-based class serving as a math refresher for energy professionals.

There is a 2-hr final exam.

CLASS HOURS – 16 HOURS COST -- \$1,790

BLOWER DOOR TESTING AND DIAGNOSTICS

Students will perform blower door testing including manometer and door set-up, operation and interpretation of results.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 18 HOURS COST -- \$1,970

BPI BUILDING PERFORMANCE TRAINING

Students will gain the ability to perform energy audits through the use of diagnostic equipment that ensures systems function properly together to maximize home performance, comfort, energy efficiency, safety and durability.

Participant may choose to take this course to take the BPI Analyst, Envelope, AC & Heat Pump, Heating, Multifamily Analyst or Multifamily Operator exam upon successful completion of this course.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour written exam and a 2-hour field examination exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 52 HOURS COST -- \$5,130

BUILDING MATERIAL REUSE & DECONSTRUCTION TRAINING

This is the first comprehensive building material reuse and deconstruction training in the country, with curriculum developed by the Building Material Reuse Association's 2009 Deconstructor of the Year.

Students are trained on the process of disassembling a building scheduled for altering or removal from a site, while preserving valuable materials for reuse. Students will also learn about the supply chain for reusable building materials, for donation or sale to recycling or resale centers and saved from a costly and environmentally detrimental fate in a landfill. Deconstruction & building materials reuse offer many environmental and social benefits, including: reducing the consumption of new resources, minimizing construction & demolition (C&D) waste and pollution, creating value added markets from waste materials, expanding job opportunities and workforce development skills, & reducing urban blight and improving neighborhoods.

The class includes live webinar training as well as self-paced training.

CLASS HOURS – 63 HOURS COST -- \$6,120

CALGREEN INSPECTOR CERTIFICATION

Students will become “up-to-date” on current CalGreen building code compliance and better prepared for these new building standards.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 26 HOURS COST -- \$2,790



CERTIFIED COMMISSIONING AGENT

This course aims at enhancing the student's involvement in building systems commissioning and increases their role in the growing energy efficiency and building certification industries.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 44 HOURS COST -- \$4,410

ELECTRIC VEHICLE CHARGING STATION & INFRASTRUCTURE TRAINING

This extensive combination “lecture & hands-on” course will cover the fundamentals and advanced skills necessary for electric vehicle charging station installation and maintenance. Students will gain a thorough understanding of the different charging stations, their specifications and regulations required to complete a fully functional electric vehicle charging station solution. The course also includes the skills for commissioning and maintaining both residential and commercial charging stations as well as brand/model-specific installation instructions. Safe use and storage of required tools will also be covered, along with OSHA and NEC safety codes.

The class includes live webinar training as well as self-paced training.

CLASS HOURS – 16 HOURS COST -- \$1,790

ENERGY MODELING FUNDAMENTALS UTILIZING ENERGYPRO

Students will be prepared to work in the field of energy consulting by use of EnergyPro to create Title 24 reports for new and existing homes as well as creating energy efficient retrofit packages for homeowners. Homes will be modeled using real world data. Installation of software and set-up on participant's computer is included.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 26 HOURS COST -- \$2,790

ENERGY STAR CERTIFICATION PROFESSIONAL

Students will learn how to perform Energy Star Rating for buildings, what types of buildings are eligible, and comprehensive training on requirements, benchmarking, performance statements, data checklists, and Energy Star scoring.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 18 HOURS COST -- \$1,970

EPA 608 REFRIGERANT HANDLING CERTIFICATION

Students will gain the ability to become EPA certified in refrigerant handling. This certification (EPA 608) is required for anyone who works with refrigerants in the air-conditioning or refrigeration industries.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 10 HOURS COST -- \$1,250

GREEN PROJECT MANAGER

Students will become experts on current CalGreen building code regulations and prepare to take exams for LEED Green Associate, Building Design and Construction, Operations and Maintenance, LEED AP, and ENERGY STAR Certification Professional. This course also covers codes and standards for becoming a Certified Commissioning Agent (CCA). It is a comprehensive course that includes focus on multiple disciplines and regulations in preparation for seven specific certification examinations.

The class includes live webinar training as well as self-paced training.

There are several final exams, each in its own subject area and with tailored print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 244 HOURS COST -- \$26,050

HEATING AND AIR CONDITIONING DUCT TESTING AND DIAGNOSTICS

Students will perform duct testing including manometer and duct testing and pressure pan equipment set-up, operation and interpretation of results.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 16 HOURS COST -- \$1,790

INTRODUCTION TO RESIDENTIAL GREEN BUILDING AND ENERGY EFFICIENCY FIELD

Students will gain a working knowledge of the field of green and energy efficiency; i.e. construction terminology and safety; energy efficiency testing, retrofits, and case studies, the fundamentals of energy and its challenge in the state and at the building level, and how water fits into green building & energy efficient design & retrofit projects.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes study guides, print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 34 HOURS COST -- \$3,410



IGSHPA GEOTHERMAL INSTALLATION TRAINING

Students will receive an introduction to geothermal fundamentals, integration with green buildings, ground heat exchange design, system selection, system sizing and calculation, installation techniques, and more.

This course is instrumental for HVAC contractors, drillers, builders, plumbers, pipefitters, and engineers. It facilitates a basic understanding of geothermal technology as it applies to residential structures. The application of new technology and software continue to make GSHP installation easier and more comprehensive. Trainees will learn the fundamentals of geothermal installation for new construction as well as existing structures with focus on system selection, design, and installation techniques. An open book exam for IGSHPA Accredited Geothermal Installer status, a 1-year IGSHPA membership, and pipe fusion certification is provided upon completion of the course.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 50 HOURS COST -- \$4,950

LEAD RENOVATION, REPAIR AND PAINTING

Students will gain the ability to become EPA certified in lead-safe work practices, thereby furthering their career options, following mandated requirements, and increasing their ability to move up in their fields.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 10 HOURS COST -- \$1,250

LEED BUILDING, DESIGN AND CONSTRUCTION*

**PREREQUISITE – COMPLETION OF LEED GREEN ASSOCIATE PROGRAM*

This course prepares students to take the LEED AP Examination for BD&C (Building Design and Construction)

Students will learn the subject matter, important test information, how to leverage existing project management skills and learn to identify pertinent question information to quickly answer examination problems so they pass the LEED AP BD&C (Building Design & Construction) Exam.

The class includes live webinar training as well as self-paced training.

Exam preparation utilizes print materials, online study tools, management tools, reference guides, PowerPoint handout, LEED online, timelines and schedules, vendor information collection documents, pre-programmed tracking forms, LEED compliant plan templates, relevant LEED compliant credit templates, sample documentation, and credit reference poster.

CLASS HOURS – 42 HOURS COST -- \$4,230



LEED GREEN ASSOCIATE

This course prepares students to take the LEED GA (Green Associate) Examination.

Students will learn the subject matter, important test information, how to leverage existing project management skills and identify pertinent question information to quickly answer examination problems so they pass the LEED GA (Green Associate) Exam.

The class includes live webinar training as well as self-paced training.

Exam preparation utilizes print materials, online study tools, management tools, reference guides, PowerPoint handout, LEED online, LEED compliant plan templates, relevant LEED compliant credit templates, sample documentation, and credit reference poster.

CLASS HOURS – 34 HOURS COST -- \$3,410

LEED OPERATIONS AND MAINTENANCE*

**PREREQUISITE – COMPLETION OF LEED GREEN ASSOCIATE PROGRAM*

This course prepares students to take the LEED AP for O&M (Operations and Maintenance) Examination.

Students will learn the subject matter, important test information, how to extrapolate from their real world experiences to examination matter, and learn to identify pertinent question information to quickly answer examination problems so they pass the LEED O&M Certification Exam.

The class includes live webinar training as well as self-paced training.

Exam preparation utilizes print materials, online study tools, management tools, reference guides, PowerPoint handout, LEED online, timelines and schedules, vendor information collection documents, pre-programmed tracking forms, LEED compliant plan templates, relevant LEED compliant credit templates, sample documentation, and credit reference poster.

CLASS HOURS – 42 HOURS COST -- \$4,230

LEED PROJECT MANAGEMENT**

***REQUIRED FOR LEED BUILDING DESIGN & CONSTRUCTION AND LEED BUILDING OPERATIONS & MAINTENANCE*

Students will get prerequisite experience required to take the LEED AP exam. The course includes project team management, eco-charrette, project scorecard and documentation, credit interpretation requests/rulings and final certification review.

The class includes live webinar training as well as self-paced training.

Exam preparation utilizes print materials, online study tools, management tools, reference guides, PowerPoint handout, LEED online, LEED compliant plan templates, relevant LEED compliant credit templates, sample documentation, and credit reference poster.

There will be a 2-hour final exam.

CLASS HOURS – 34 HOURS COST -- \$3,410

MOISTURE, MOLD AND INDOOR AIR QUALITY

Students will gain an understanding of Indoor Air Quality (IAQ) and how it is affected by moisture and other indoor pollutants, with an emphasis on moisture and its mitigation through building structures.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS 10 HOURS COST -- \$1,250

RESIDENTIAL ENERGY EFFICIENCY SALES

Students will learn how to sell energy efficiency upgrades to home owners; i.e. energy retrofits including cost benefit choices, talking points homeowners will listen to and how to effectively get your point across and win the job.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 10 HOURS COST -- \$1,250

RESIDENTIAL ENERGY EFFICIENCY SPECIALIST

Students will receive preparation in several major areas of study including residential green building and energy codes; residential mechanical ventilation systems; residential HVAC systems; heating and air conditioning duct testing; blower door testing and diagnostics; combustion appliance zone testing; moisture, mold and indoor air quality; thermal imaging; EPA 608 refrigerant handling certification; energy modeling using EnergyPro; Energy Star professional; CalGreen inspector; and residential energy efficiency sales. This is a comprehensive program that prepares students for various exams and certifications.

The class includes live webinar training, field work and self-paced training

There will be several final exams that include use of study guides, print materials, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 242 HOURS COST -- \$25,870

RESIDENTIAL HVAC SYSTEMS

Students will gain an understanding of HVAC systems for residential buildings. They will learn terminology, learn about types of systems, direct expansion (DX) cooling, efficiency vs capacity, diagnostic testing, thermostats, how homes lose and gain heat, diagnosing comfort problems, designing a system for a home, installing systems, and more.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 28 HOURS COST -- \$2,970



RESIDENTIAL MECHANICAL VENTILATION SYSTEMS

Students will have an understanding of mechanical ventilation systems for residential buildings; the pros and cons on each type and how mechanical ventilation compliments a healthy home.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 8 HOURS COST -- \$1,070

SOLAR TRAINING

Students will learn both the theoretical and practical application of solar energy, and will be equipped with the technical expertise to successfully implement solar projects. Students will receive an introduction to Photovoltaic Systems, System Design, Electrical Connection/Integration, Major Components of a PV System, Commissioning-Maintenance-Troubleshooting, Performance Monitoring, Permitting, National Electrical Code, Live Installation, Off-Grid Systems, Batteries, Hybrid and Bimodal Systems, and more.

The class includes live webinar training as well as self-paced training.

There will be an 8-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 56 HOURS COST -- \$5,490

THERMAL IMAGING

Students will receive training in the use of thermal imagers so they can be recognized and knowledgeable thermographers, as defined by the American National Standards Institute. This course assists students in strengthening and improving infrared skills for condition monitoring and predictive maintenance applications in the field.

The class includes live webinar training as well as self-paced training.

There will be a 2-hour final exam. Exam preparation utilizes print materials, online study tools, videos, Practice Exam Simulators, Digital Flash Cards and Audio Training.

CLASS HOURS – 26 HOURS COST -- \$2,790



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