

BUILDING SCIENCE & TRADES

Home Energy Auditors Occupational Outlook Information

>>>> WHAT AUDITORS DO



- Identify and prioritize energy saving measures
- Prepare audit reports containing energy analysis results or recommendations for cost savings
- Collect and analyze field data related to energy usage
- Inspect or evaluate building envelopes, mechanical systems, electrical systems, or process systems to determine the energy consumption of each system
- Perform tests such as blower-door tests to locate air leaks

>>>> PAY



The median annual wage was \$66,170 in 2015. Entry-level wages are often lower than the median.

>>>> SKILLS



- Integrity
- Analytical Thinking
- Attention to Detail
- Responsible & Dependable
- Computer Literacy

>>>> WORK ENVIRONMENT



- Travel to homes to conduct tests using specialized equipment

>>>> HOW TO BECOME A HOME ENERGY AUDITOR



- Training in a certification program
- Associate's Degree

>>>> JOB OUTLOOK



Projected job growth from 2014-2024 is 5% to 8%.

Source: www.onetonline.org March 2016

GREEN BUILDING MAINTENANCE & MANAGEMENT A.A.S. 61-63 credits

Gain the skills and knowledge needed to maintain and manage high-performance commercial buildings. Learn current theories and get hands-on training to work with evolving technologies like photovoltaic cells, wind generators, geothermal heating, and HVAC systems.

NEW! RESIDENTIAL ENERGY AUDITOR - HYBRID

The BPI Building Analyst course is based upon a broad building science curriculum. It presents a solid scientific foundation upon which inspectors and auditors can build an accurate understanding of modern buildings. Each topic includes an overview of the technology, examples of typical installations and their defects, procedures for performing audits, and guidelines for analyzing potential retrofits. A balanced approach to building performance is presented here that addresses energy efficiency, building durability, and human health.

The information presented here covers the topic areas included in the BPI Building Certification program. Students who complete the course will possess the skills needed to sit for the BPI Building Analyst exam. Course price includes Residential Energy, Energy Auditor Field Guide, Energy Auditor course workbook, laminated reference sheets.

DCB 2154-01 - Call 845-802-7171 for more information.

BPI BUILDING SCIENCE PRINCIPLES CERTIFICATE OF KNOWLEDGE

Are you considering a career in green buildings, sustainability or energy efficiency? Do you already work in the residential building trades? If so, basic building science knowledge is critical to your success. Earning the Building Science Principles certificate is your first step into the world of energy efficient home performance. Building science demonstrates how various components of the home interact to affect the home's overall performance. Understand the relationship between the building envelope, heating, A/C, insulation, mechanical ventilation, lighting, appliances and other systems of the home. Learn how all of these systems affect the comfort, health and safety of occupants and durability of the home. Discover why improving the energy efficiency of the home is the first step toward solar, geothermal or other renewable energy improvements. Fee includes an online exam and textbook.

DCB 2097-02

ONLINE

Open Enrollment

\$299



BUILDING SCIENCE & TRADES

SU BPI BUILDING ANALYST PROFESSIONAL - INTRODUCTION TO HOME ENERGY AUDITING

Prepares students to perform “whole-house” energy assessments, identifying a building’s problems at the root cause and prescribing and prioritizing solutions based on building science principals. Upon successful completion of the written and field exams, students receive Building Analyst Certification. Approved by New York State Bureau of Veterans Education for payment of VA Education Benefits. *Approved for 8.5 PBI CEUs.* Prerequisite: Basic building science background strongly recommended



Reference textbook: *Residential Energy* (ISBN-13: 978-1880120231)

Instructor: N. Jen

DCB 1842-53 M-F 9/11-15 8am-5pm SRC, Kelder \$995

Class on Friday is from 9-11am and is held at KSU in Kingston.

DCB 1842-54 M-F 11/13-17 8am-5pm SRC, Kelder \$995

Class on Friday is from 9-11am and is held at KSU in Kingston.

SU BPI BUILDING ANALYST WRITTEN EXAM

DCB 1025-53 F 9/15 11am-1pm KSU \$200

DCB 1025-54 F 11/17 11am-1pm KSU \$200

SU BPI BUILDING ANALYST FIELD EXAM

Subject to a \$200 non-refundable fee. To register call 845-339-2025.

DCB 1143-23 By appointment SRC, Kelder \$400

SU BPI FIELD TEST PREP CLASS

By appointment at Kelder, SRC \$250 each

DCB 1883-14 BPI Building Analyst Field Test Prep

SU BPI ENVELOPE PROFESSIONAL

Learn to quantify “whole-house” performance and prescribe improvements to help tighten the building envelope (shell), stop uncontrolled air leakage, install needed insulation, and optimize comfort, durability and HVAC performance. Approved by New York State Bureau of Veterans Education for payment of VA Education Benefits. Prerequisite: BPI Building Analyst training. *Approved for 8.5 BPI CEUs.* Instructor: N. Jen

DCB 1843-28 M-R 10/23-26 8am-5pm SRC, Kelder \$1,300

Class on Thursday is from 9-11am and is held at KSU in Kingston.

SU BPI ENVELOPE PROFESSIONAL WRITTEN EXAM

DCB 1026-30 R 10/26 11am-1pm KSU \$200

SU BPI ENVELOPE PROFESSIONAL FIELD EXAM

Subject to a \$200 non-refundable fee.

DCB 1149-15 By appointment SRC, Kelder \$400

SU BPI HEATING PROFESSIONAL

Learn how to optimize the performance of heating equipment to help save energy and ensure occupant comfort, health, and safety. Approved for 8.5 BPI CEUs. Approved by New York State Bureau of Veterans Education for payment of VA Education Benefits. Prerequisite: BPI Building Analyst training.

Instructor: N. Jen

DCB 1036-18 M-F 12/4-8 8am-5pm SRC, Kelder \$1,300

Class on Friday is from 9-11am and is held at KSU in Kingston.

SU BPI HEATING PROFESSIONAL WRITTEN EXAM

DCB 1635-18 F 12/8 11am-1 pm KSU \$200

SU BPI HEATING PROFESSIONAL FIELD EXAM

Subject to a \$200 non-refundable fee.

DCB 1150-18 By appointment SRC, Kelder \$400

BUILDING SCIENCE & TRADES

UB ELECTRICAL APPRENTICE PROGRAM

This five-year program has been designed and developed to meet the mandated requirements for related instruction in the New York State Registered Electrical Apprentice Program. Students will receive in excess of 180 hours of instruction per year for 900 hours over five years while attending class two nights per week from September to June. Classes will offer both theory and hands-on training. Upon successful completion of the entire program, New York State Registered Electrical Apprentices will be qualified as journey-workers. This program of study is also open to:

- Those already employed in the electrical trade who are not affiliated with a registered program
- Those employed in related trades who wish to expand their skills
- Those who desire employment in the electrical trade

Instructors: **J. DeVillar** and **C. Peone** are Master Electricians. **B. Ecker** is a Distinguished Member of the Technical Staff at Verizon Communications, Inc. Approved for the Training of Veterans. NYS Education Dept. & NYS Dept. of Labor Approved Program.

**For additional information and to initiate the registration process,
call Bill Doughman at 845-331-5050 ext. 2226.**

EAP1718 • 60 Sessions/180 + hours - \$2,639 per year, and does not include textbooks.

TYPICAL SCHEDULE

1st YEAR COURSES

Trade Math I	39 hrs
Direct Current Theory	39 hrs
Trade Safety	21 hrs
Residential Wiring I	30 hrs
Residential Wiring II	30 hrs
Electrical Blueprint Reading	24 hrs
TOTAL	183 hrs

3rd YEAR COURSES

Transformer Theory & Power Distr.	45 hrs
General Alarms	30 hrs
Semi-Conductor Theory	21 hrs
Industrial Semi-Conductor Theory	27 hrs
Electrical Estimating	24 hrs
PV Systems & Concepts	40 hrs
TOTAL	187 hrs

2nd YEAR COURSES

Alternating Current Theory	39 hrs
Industrial Safety & Labor Relations	21 hrs
Instruments Measuring & Testing	18 hrs
Commercial Wiring I	30 hrs
Commercial Wiring II	30 hrs
Adult First Aid/CPR Certification	8 hrs
National Electrical Code	30 hrs
OSHA Safety Certification	10 hrs
TOTAL	186 hrs

4th YEAR COURSES

Motor & Generator Theory	39 hrs
Motor Control Theory	39 hrs
Motor Control Wiring & Motor Wiring	15 hrs
Industrial Wiring	30 hrs
PV System Installation	40 hrs
Welding for Electricians	24 hrs
TOTAL	187 hrs

5th YEAR COURSES

Telecommunications	45 hrs
Fiber Optics Technology	24 hrs
Grounding & Bonding	30 hrs
Programmable Controllers	27 hrs
Electrical Code Update	30 hrs
Elective	30 hrs
TOTAL	186 hrs



**ADMISSIONS ORIENTATION and TESTING for NEW APPLICANTS
is AUGUST 29 at 5pm.**

CALL 845-331-5050, EXT. 2226 TO RESERVE A SEAT.

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UB AIR CONDITIONING CERTIFICATION

This course provides the opportunity to become a Certified Technician and receive EPA 608, 609, and R410A Certification. This course is designed for building maintenance personnel and those seeking careers as entry-level service technicians. Learn HVAC/refrigeration theory, as well as how to service and repair residential and commercial refrigeration systems. Study refrigerants and handling procedures for recovery, recycling, and reclamation to meet EPA regulations. Safety glasses are required.

Instructors: J. Henriksen & J. Santiago

TR101-0907CT T/R 9/7-12/12 5:30-9:30pm CT \$1,899

UB OIL HEAT TECHNICIAN

This course is designed for the beginner with little or no previous experience and combines HVAC theory with hands-on training. This course is useful for homeowners, maintenance personnel, or those seeking employment as an entry level technician. Ulster BOCES is a NORA (National Oil Heat Research Alliance) approved program and follows the NORA curriculum for Bronze level (entry level) technician training. Students will have the opportunity to sit for the NORA certification exam at the end of the program. The curriculum includes training in electrical theory, introduction to the burner and oil burner certification and controls. Safety glasses are required. **Instructors: T. Fullman, M. Anderson & A. Orton**

TR102-0907CT T/R 9/7-28 5:30-9:30pm CT (Theory) \$1,999

No Class 9/14

M/W 10/2-12/20 5:30-9:30pm CT (Lab)

UB BASICS OF HOUSEHOLD WIRING

Learn the basics of residential wiring from Master Electrician Chris Peone as he guides you through electrical instruction and information about topics such as building a complete working circuit, general lighting versus task and accent lighting, light switch replacement and wiring, different wiring methods and requirements, and much more. This hands-on class will leave you more confident the next time you find a faulty outlet.

WW119-0920CT M 9/20-10/4 6-9pm CT \$119

UB WELDING CERTIFICATION COURSE

Please refer to page 11 for course description and availability.

UB NEW! AWS STRUCTURAL WELDING EXAM

AWS D 1.1 structural steel, 1" groove weld, 3G and/or 4G Positions.

Proctor: C. Hubert, AWS CWI

Exam fee is \$175 per position, maximum of two.

WWExam0120CT S 1/20

8:30am-3pm CT \$175



AUTOMOTIVE PROGRAMS WILL RETURN IN THE SPRING 2018

**AUTOMOTIVE MAINTENANCE & LIGHT REPAIR
NEW! AUTOMOTIVE ALIGNMENT**

MEET WITH OUR INSTRUCTORS AT THE AUGUST 16 OPEN HOUSE.

Tour the automotive bay, and learn more about our industry-leading wheel alignment system and the new programs we will be offering.