ECA Training Courses

- PA Certification Courses Installer, Crew Chief, Auditors
- Building Performance Institute
- EPA Lead Safety for Renovators
- OSHA 10 & 30
- Spray Foam Insulation and White Roof Coating
- Apprenticeship Program
- Weatherization and Retrofit
- Building Energy Management
- Benchmarking



ECA – Community College Partnership

- CCP provides Certificates, Academic Curriculum, and Middle-States academic accreditation
- ECA provides Classroom and Hands-on training, Certification and employee guidance
- Together 2 Apprenticeships approved by US DOL: Weatherization Installer and Technician (WIT) Building Energy Analyst (BEA)



Apprenticeship Program

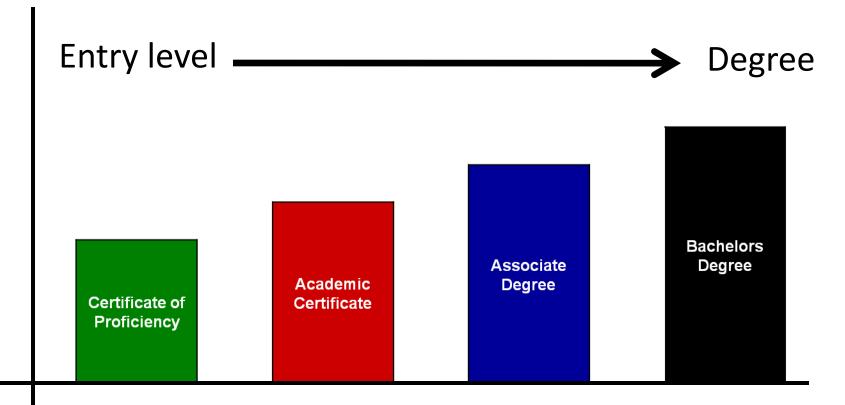
Developed in partnership with Community College of Philadelphia. Objective is to build an educational continuum for Energy Conservation and Building Science.







Education Ladder





WIT Apprenticeship Program

COURSEWORK SCHEDULE

TOTAL

WORK PROCESSES SCHEDULE

In the sharest and the MALE ships of a start of

<u>Fall</u>				
ENGL 098	Fundamentals of Writing (if needed by the individual trainee – not for College credit)	45 hrs	(3 cr)	
ENGL 099	Fundamentals of Reading (if needed by the individual trainee – not for College credit)	45 hrs	(3 cr)	
ADC 103	Basic CAD	90 hrs	3 cr	
<u>Spring</u>				
ADC 101	Introduction to Design and Construction	45 hrs	3 cr	
MATH 017	Elementary Algebra (if needed by the individual trainee – not for College credit)	45 hrs	(3 cr)	
<u>Summer</u>				
MATH 137	Geometry for Design	45 hrs	3 cr	
ADC 136	Construction Safety & Building Codes	60 hrs	3 cr	

3 cr)	Introduction to Weatherization and Building Science	360	hrs
5 (1)	Safety Practices	160	hrs
3 cr)	Basic Carpentry	360	hrs
	Materials, Tools and Equipment	160	hrs
3 cr	Insulation	480	hrs
	Air Sealing	360	hrs
	Other Measures	120	hrs
3 cr	TOTAL	2000	hrs
2			

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240 hr

12 cr



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# WIT Apprenticeship Program

At the conclusion of this one year apprenticeship, successful participants will earn:

- Journeyman credential as a Weatherization Installer and Technician\*
- Proficiency Certificate in Building Science Energy Conservation from Community College of Philadelphia
- OSHA 30 hour Safety Certification
- EPA Lead Certification



## **BEA Apprenticeship Program**

|               | (SCHEDULE                                          |         |      | WORK PROCESSES SCHEDULE           |      |     |
|---------------|----------------------------------------------------|---------|------|-----------------------------------|------|-----|
| <u>Fall</u>   |                                                    |         |      | Diagnostics                       | 640  | hrs |
| ADC 112       | Construction Materials & Detailing:<br>Principles  | 45 hrs  | 3 cr | Mechanical Systems                | 600  | hrs |
|               |                                                    |         |      | Client Education                  | 120  | hrs |
| ENGL 102      | English Composition II                             | 45 hrs  | 3 cr | Energy Analysis                   | 296  | hrs |
| <u>Spring</u> |                                                    |         |      | Principles of Hazardous Materials | 200  | hrs |
| ADC 286       | Building Rehabilitation and Energy<br>Retrofit     | 45 hrs  | 3 cr | Reports                           | 144  | hrs |
| ADC 161       | Energy Auditing, Remediation and                   | 60 hrs  | 3 cr |                                   |      |     |
| <u>Summer</u> | Monitoring                                         |         |      | ΤΟΤΑΙ                             | 2000 | hrs |
| ADC 146       | Construction Supervision and Business<br>Practices | 60 hrs  | 3 cr |                                   |      |     |
|               | ΤΟΤΑΙ                                              | 255 hrs | 15cr |                                   |      |     |



# **BEA Apprenticeship Program**

At the conclusion of this one year apprenticeship, successful participants will earn:

- Journeyman credential as a Building Energy Analyst\*
- Academic Certificate in Building Science Energy Conservation from Community College of Philadelphia
- Building Performance Institute (BPI) certification at the Building Analyst and Envelope levels



## **Associate of Applied Science Degree Program**

**COURSEWORK SCHEDULE to complete the A.A.S. Degree in ENERGY CONSERVATION** 

#### Fall

| ADC 212       | Construction Materials & Detailing II                     | 3 cr  |
|---------------|-----------------------------------------------------------|-------|
|               | Construction Materials & Detailing I                      | 5 0   |
| ADC 163       | CAD Building Documentation                                | 3 cr  |
| ADC 247       | Construction Business Practices &<br>Supervision          | 3 cr  |
| EASC 111      | Environmental Conservation                                | 3 cr  |
|               | Humanities Elective                                       | 3 cr  |
| <u>Spring</u> |                                                           |       |
| ADC 237       | Construction Cost Estimating II:<br>Cost/Benefit Analysis | 3 cr  |
| ADC 261       | Construction Management & Scheduling                      | 3 cr  |
| ADC 254       | Environmental Systems II – LEED GA Prep                   | 3 cr  |
| ADC 246       | Contracts and Specifications                              | 3 cr  |
|               | Science Elective                                          | 3 cr  |
|               | TOTAL                                                     | 30 cr |



# Associate of Applied Science Degree Program

At the conclusion of this one year (full time) or two year (parttime) Program graduates will earn:

- Associate of Applied Science Degree in Energy Conservation from Community College of Philadelphia
- Certification as a LEED Green Associate
- Ability to transfer to Temple University's or Drexel University's Construction Management Bachelor's Degree Program



# Potential jobs

without a degree Entry level Installer Crew Chief, Auditor, Contractor, Start-up Business, Building Maintenance

*with a certificate or degree* Architect, HVAC, Building Science, Energy Engineer



# ECA's Students Our Commitment to Diversity

ECA is committed to educate a diverse population that reflects the nation and to break the barriers of education and work silos

#### Students include:

- Underemployed Worker
- Unemployed Workers
- Veterans
- Incumbent Workers
- Entrepreneurs
- Architects, contractors
- Professionals





# Future of ECA and CCP Partnership

- Apprenticeship Program
  - Currently being replicated in Montgomery county and New Jersey
- Access to training facility for CCP students
- A la carte courses within the Apprenticeship program
- Incorporate use of the Training Center
- Develop additional Energy Conservation and Building Science programs



# Partnerships

- BASF, Dow, St. Gobain
- NCAF/ExxonMobil
- U.S. Department of Labor
- U.S. Department of Energy
- PA Department of Labor and Industry
- PA Department of Community and Economic Development
- Cities of Philadelphia, Camden, Baltimore, Newark
- Conference of Mayor's/ Wal-Mart
- School District of Philadelphia
- National Forest Service
- Contractors, Architects
- Community Based Organizations

