ACE Mentor Program: Pathway to Community Colleges and the Skilled Trades

Webinar - January 26, 2017, 11am-12pm PST
Presentation agenda

- **Welcome**
  Reneè Tomlinson – HVAC Excellence

- **Introduction and Overview of BEST Center**
  Larry Chang – BEST Center Manager, ACE Oakland Mentor, Architect

- **ACE Mentor Program Overview**
  Diana Eidenshink – Interim Executive Director
  Andrew Frankel – Regional Director (West)

- **Kirkwood Community College & ACE Eastern Iowa**
  Joe Greathouse – Professor of Construction Management

- **Cuyahoga Community College & ACE Cleveland**
  Kenneth Hale – Executive Director, Early College and Outreach Program & ACE Cleveland Secretary

- **Laney College & ACE Oakland**
  Lorena Arroyo – ACE Oakland Team Leader
  Tom Scott – ACE SF Bay Area Board Member & Regional Leader

- **Q&A - please type your questions**
BEST Center - National Science Foundation
National Center for Building Technician Education
Laney College, Oakland, CA; www.bestctr.org

Mission: To prepare technicians to manage building systems and energy use by
  - Spurring a national forum on the role of building technicians in energy efficiency
  - Advocating for advanced technical education & high-performance building operations
  - Facilitating the dissemination and adoption of exceptional curricula and technical programs in sustainable building performance

Goals
  - Build and transform community colleges in the field of building systems technician education, e.g. Heating, Ventilation & Air Conditioning, Building Automation Systems.
  - Engage industry stakeholders in a national collaboration with community colleges.
  - Strengthen the national STEM pipeline for educating building technicians and engineers to include high school STEM education and career awareness.
What are some occupations for building technicians?

BEST Center Career Videos:
*Building a Better Tomorrow Now* (2.5 min) - https://www.youtube.com/watch?v=zLXPWb45_IY
*Building a Better Tomorrow* (7 min) - https://www.youtube.com/watch?v=Ohti1aHHK7g&t=5s

- Building Automation/Controls Technician
- Building/Stationary Engineer
- HVAC Installation/Service Technician
Present building technicians are near retirement age plus there are insufficient new recruits – we need urgently to build the workforce of tomorrow!

Building operations provide excellent, middle-skills jobs which pay living wages or better without requiring a bachelor’s degree.

Many building technician jobs are local and can’t be off-shored.

Demand for operations and maintenance is steady, even when new construction isn’t.

Plan for future generations--high performance buildings can save energy now and $$ in the long run and are good for the environment and human health.
Diana Eidenshink
Interim Executive Director

Andrew Frankel
Regional Director - West
ACE Mentor Program - National

- Brief History and Overview of ACE
- Expanding “C” (construction) opportunities for students is a major focus of program
- Partnering with CC’s great way to achieve goal
ACE Mentor Program - National

- CCs help connect ACE students to affordable “pipeline” to industry
- Campus resources: tools, talent, info
- Deeper connection to community/other orgs
- Get program support:
  - Mentors
  - Guest Speakers
  - Board Members
  - Curriculum/project development
  - CC students can be involved
ACE MENTOR 2014-2015
DESIGN/BUILD PROJECT – STEM CENTER

Eastern Iowa Affiliate Year in Review
Joe Greathouse – Professor of Construction Management
Fall 2014 Kickoff!
1st Year of ACE Mentor in Eastern Iowa

154 Students
46 Mentors
The design process for a 1600 sq ft STEM Center for a local middle school.

Fall semester – met as a large group four times for four hours each.
Sketches from fall meetings....

- Branding opportunity
- Clipper logo
- STEM CENTER
- "Clipper Blue" ACM Panels
- Glass Garage Door
- Metal roof
- Glass
- Aluminum
- 15'-18'
- Board foam concrete
- Patio
- Garage
- Storage
Sketches turned into models
Spring Semester:

- Design work finished
- Estimate complete
- Schedule built
- Home Builders Association insurance policy in place

Summer Semester:

- Kirkwood course (Construction Projects CON-237)
- Students spend 100 hours on the job site through various stages of construction
- Completed build August 19th, concluded with community open house
Construction begins….
Groundbreaking Ceremony.
Construction process....
Finished project!

See additional pictures and progress at: https://www.facebook.com/ccastemcenter/?fref=ts
Multi-layered Institutional Involvement with ACE Mentor Program

Kenneth Hale, Director, Access and Community Engagement, Cuyahoga Community College (Tri-C), Cleveland, Ohio
ACE Mission

Board of Director involvement and structure

Advisory Council involvement

Matching scholarships

Articulation agreements resulting college credit

Hosting ACE school program on campus
Engage, excite and enlighten high school students to pursue careers in the integrated construction industry through mentoring.

Support their continued advancement in the industry through scholarships, grants and College Mentoring.
ACE Mentor Program of Cleveland

How ACE Works

Board of Directors

Advisory Council

Affiliate Coordinators

Team 1
- Owner
- Architect/Landscape
- Civil
- Structural
- MEP Engineers
- GC / CM

Team 2
- Owner
- Architect/Landscape
- Civil
- Structural
- MEP Engineers
- GC / CM

Team 3
- Owner
- Architect/Landscape
- Civil
- Structural
- MEP Engineers
- GC / CM

Team 4
- Owner
- Architect/Landscape
- Civil
- Structural
- MEP Engineers
- GC / CM
ACE Cleveland Teams & Lead Firms

John Hay Juniors
Lead Firm: ThenDesign Architecture

John Hay Seniors
Lead Firm: Gilbane Building Company

Collinwood
Lead Firm: NEORSD / Dominion

New Tech East
Lead Firm: CIVITAD Services

New Tech West
Lead Firm: Regency Construction Services, Inc.

James Rhodes
Lead Firm: Turner Construction Company

Max Hayes
Lead Firm: Ozanne Construction Company
ACE Mentor Program of Cleveland

ACE Advisory Council

- AIA – American Institute of Architects
- ASCE – American Society of Civil Engineers
- BOMA – Building Owners and Managers Association
- CEA/AGC - Construction Employer’s Assoc./Associated General Contractors
- Cuyahoga Community College
- City of Cleveland
- CES – Cleveland Engineering Society
- Cleveland Hopkins International Airport
- Cleveland Public Power
- Cleveland State University
- Construction Employers Association
- CREW – Commercial Real Estate Women
- Kent State University College of Architecture and Environmental Design
- Kent State University Urban Design College
- NAIOP – National Association of Industrial and Office Properties
- NAWIC – National Association of Women in Construction
- NEORSD – Northeast Ohio Regional Sewer District
- NOSHE – Northern Ohio Society for Healthcare Engineering
- SMPS – Society for Marketing Professional Services
- VIP Restoration
- Wire-Net
Supporting Organizations

- AECOM
- AKA Construction Management
- The Albert M. Higley Co.
- Arcadis
- ARC
- The Austin Company
- Barber Hoffman
- Behnke Landscape Architecture
- Bostwick Design Partnership
- Bialosky & Partners
- CEC Consulting
- Chas E. Phipps Company
- CMHA
- CIVITAD Services
- The Cleveland Clinic
- Cleveland Metropolitan Schools
- Cleveland State University
- Coleman Spohn
- College Now Greater Cleveland
- Cuyahoga Community College
- CT Consultants
- Dominion
- Forest City Enterprises
- Fredrick, Fredrick & Heller
- G. Stephens
- Gardiner Trane
- Geis Companies
- Gilbane Building Company
- Greater Cleveland RTA
- HLMS Sustainability Solutions
- Infinity Construction
- The John F. Gallagher Co.
- Karpinski Engineering
- KBJ, Inc.
- Kent State University
- The Krill Company
- Langan Eng. & Environ. Services
- Marous Brothers
- Michael Benza & Associates
- The Mobile Professor
- Moody Nolan
- MWH Global
- NV5
- Neff & Associates
- NEORSD
- North Coast Concrete
- NuSurge
- Osborne Engineering
- Oswald Companies
- Ozanne Construction Co.
- Palmer Conservation Consulting
- Panzica Construction Co.
- Precision Environmental
- Project and Construction Services
- PSI
- Regency Construction Services, Inc.
- Richard L. Bowen
- RP Madison
- SE Blueprint
- Skanska
- Shook
- Stantec
- ThenDesign Architecture, Ltd.
- Thompson Hine
- Thorson Baker & Associates
- Tremco
- Turner Construction Company
- Trumbull - Great Lakes - Ruhlin JV
- The University of Akron
- University Hospitals
- Van Auken Akins Architects, Ltd.
- VIP Restoration
- Vocon
- Walsh Construction
- Whiting-Turner
Final Presentation Night
Scholarship Awards

Final Presentation Night & Scholarship Awards Banquet

ACE Mentor Program of Cleveland
2014 Final Presentation Night & Scholarship Award Banquet
Tuesday, May 6, 2014 | 5:30 p.m.
Windows on the River
2000 Sycamore Street
Cleveland, Ohio

ACE Student Presentations
Final Design Projects
Sponsorship Opportunities Available
See online registration

Keynote Speaker
David E. Gilbert
President & CEO, Greater Cleveland Sports Commission and Positively Cleveland

Scholarship Award Ceremony
Graduating ACE Seniors

ACE Cleveland has awarded more than $327,500 in scholarships since 2009!

Advance Registration Only
By April 25, 2014
http://www.gilbaneco.com/events/ace-cleveland
Please Register by April 25, 2014
Information on sponsorship levels, registration, and payment instructions available at the link above.
Articulation Agreement / Articulation Criteria – Essential Elements

- Graduation from high school
- Successfully complete two years of the ACE Mentor Program of Cleveland
- Submission of the Tri-C’s admission application
- Admission to the College no later than 12 months after completion from ACE Mentor Program and registers for the Construction Engineering Technology Program.

Benefit: Students who meet the Articulation Criteria will receive course credits, tuition-free, for the following College courses towards the College’s Associate of Applied Science in Construction Engineering Technology:

1) Construction Engineering Orientation (3 credit hours)
2) Construction Elective course (3 credit hours)
Tri-C’s High Tech Academy’s ACE Mentor Program site is led by AECOM
Tri-C’s High Tech Academy’s ACE Mentor Program “pilot” class, April 2016
ACE Mentor Program of Cleveland

How to Get Involved

Serve on a mentor team for the upcoming school year

Serve as a guest speaker to multiple teams

Provide a space to host a meeting, office tour, construction tour

Donate money for scholarships

Provide co-op opportunity during holiday break in December 2015 or Summer break 2016

Assist with committee work
  - Event planning: Scholarship Dinner (May), Golf Outing (August)
  - Communications / PR Committee (ongoing)
  - Education committee (ongoing)

Serve as a mock interview volunteer

Serve as a “College Now Mentor” to scholarship winners during their college years
ACE Mentor Program
Oakland, CA

Tom Scott and Lorena Arroyo
ACE Mentor Program Board of Directors and Co-coordinator
ACE Oakland Team, Laney College
ACE Oakland and Laney College Partnership

- Students receive hands-on instruction from Laney professors and local construction industry guest speakers and mentors.

- Being at Laney this year will provide on-campus resources and give students the opportunity to have a college campus experience.

- Students learn career paths in the trades that involve higher education and vocational training through the community college system; some

- ACE Oakland team will design Tiny Houses to address local housing crisis in partnership with Laney College.
ACE Oakland in Action

Left to right: SketchUp lesson at BART headquarters; Cypress Mandela visit, Oakland; San Francisco Affiliate event, SF
Q&A/ Contact Us

ACE Mentor Program of America
www.acementor.org
571-297-6869

HVAC Excellence- ESCO Group
www.escogroup.org/hvac/
800-726-9696

BEST Center
www.bestctr.org
Larry Chang, manager
510-464-3240