CTE Career Cluster Professional Learning Communities (Cluster PLCs)

“Integrating Workforce, Academics and the Environment in Construction”

Architecture & Construction

April 6, 2021
AGENDA

- Welcome and Introductions
- Guest Speaker Overview
- Guest Speaker Best Practices
- Collaboration
Top 2019-20 Postsecondary Construction Trade Programs

(Out of 13,111 District Postsecondary Programs)
Perkins V


Perkins serves as the primary federal investment in Career and Technical Education.

Florida's Perkins V State Plan

- Executive Summary of Florida's 2020-2024 State Plan (PDF)
- Florida's 2020-2024 State Plan (PDF)

Resources

- The Law
- Perkins V Text

https://www.fldoe.org/academics/career-adult-edu/perkins/ProgramsOfStudy.stml
## Programs of Study Alignment Matrix

**Purpose:**
The purpose of this document is to show the alignment between CTE programs at different educational levels for the implementation of programs of study, a requirement for all Perkins eligible recipients.

<table>
<thead>
<tr>
<th>Cluster - Secondary</th>
<th>Prog Number - Secondary</th>
<th>Prog Name - Secondary</th>
<th>Cluster - Clock Hour</th>
<th>Prog Number - Clock Hour</th>
<th>Prog Name - Clock Hour</th>
<th>CIP Number - College Credit</th>
<th>Prog Name - College Credit</th>
<th>Baccalaureate (Not Perkins Eligible)</th>
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</thead>
<tbody>
<tr>
<td>Architecture &amp; Construction</td>
<td>8101100</td>
<td>Architectural Drafting</td>
<td>C100200</td>
<td>Drafting</td>
<td>1604090100</td>
<td>AS-Architectural Design and Construction Technology</td>
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<tr>
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<td>Electricity</td>
<td>C700100</td>
<td>Electronic System Integration &amp; Automation</td>
<td>1615030504</td>
<td>AS-Energy Management and Controls Technology (Energy)</td>
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[https://www.fldoe.org/core/fileparse.php/18815/url/ProgramsStudy-AlignmentMatrix.xlsx](https://www.fldoe.org/core/fileparse.php/18815/url/ProgramsStudy-AlignmentMatrix.xlsx)
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“Integrating Workforce, Academics and the Environment in Construction”

Bridging the gap between skills education and industry needs with a forward focus on environmental issues and shifting cultural stigmas

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The Issues

- Skilled labor
- Society
- Secondary Education
- Effect on Environment
- Outdated Training Platforms/Curriculum
  - The Truth Hurts...
  - Cape and Perkins
  - Industry Recognition is Relative
Skilled Labor

- Retiring out
- Negative Stigmas
  - “Only the bottom of the barrel”
- Combating Greed vs Progress
  - “The 1099 Culture”
- Training Pipelines
  - No career Lattices
Outdated Training

- The Truth Hurts!
- Cape and Perkins
- Industry NOT Recognized
Secondary Education

- AP and Honors
- Tech Heavy
- Promotes College but selectively
- Unrealistic and Ineffective
Society

- Political
- Socioeconomic
- Gender
- Ethics
- Morals and Priorities
- Generational Shifts
Environment

- Growth vs Need
  - Buildable lots and developing land
- Contribution to Pollution
  - 40% of Energy Consumption
  - Millions of tons of sediment
  - Impaired water bodies
- Depleting Resources
  - Lumber price up 300%
- Reinforced Unsustainable Practices
  - “This is how we’ve always done it!”
The Fix

- Building Construction Specialist
  - Adaptable Framework
  - Best Practices
  - Integrates
- Combating Issues
  - Education
  - Partnerships
  - Feedback and Involvement
- Thinking Outside the Box
- Integrating Other Programs
  - CareerSource
  - BIA and Organizations
  - Faith Based and Non-Profits
We Can!

• But...
• We need to stay focused
• We need to stay relevant
• We need to stay current
• AND...
• We need to be forward thinking...
ENVIRONMENTAL EDUCATION

The Missing Component of the Education of Future Construction Personnel & Managers
Looking into the past, Florida’s construction personnel were never required to include in their education anything about:

- Environment or environmental regulations
- Sustainability or sustainable practices
- Energy efficiencies of constructed structures
- Water reduction and surface water protection
- Carbon reduction and global warming
- Solid waste minimization, reuse, and recycling
FUTURE OF CONSTRUCTION

Will require construction personnel to have knowledge of:
Environmental regulations, permitting, inspections, and compliance
Sustainability development practices
Energy and water efficiencies
Waste reduction

“Construction firms that refuse or ignore the growing trends of building green will be left behind in our new century.” *American Society for Engineering Education, 2017*
INTEGRATION OF GREEN INTO THE EDUCATION OF CONSTRUCTION TRADES STUDENTS
GREEN OR ENVIRONMENTAL LITERACY

Environmental literacy needs to be incorporated into all aspects of higher education:

- Promote interdisciplinary majors/certificates that address environmental literacy in students
- Promote campus organizations that work towards developing environmental literacy in students
- Facilitate professional development for facility to incorporate aspects of environmental literacy into courses across the institution, not just science courses/departments
- Coordinate sustainability initiatives campus wide; such as, water use, energy use, recycling, etc.

*See the *(Florida Environmental Literacy Plan, 2005)*
WHERE DO WE GET STARTED?

- Identify grants and monies needed for a program
- Set up goals for construction students in their education to include environmental components in their construction classes
- Integrate green development and environmental sustainability to become part of their way thinking and problem solving
col·lab·o·ra·tion
Resources

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Resources (continued)…

• Northwest Florida State College: https://www.nwfsc.edu/

• Lunsford Environmental, LLC: http://lunsfordenvironmental.com/

• LEED Website: http://leed.usgbc.org/

• GET THERE Florida: https://gettherefl.com/
Thank You!

David Mueller
State Supervisor for:
Architecture & Construction;
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