

Career & Technical Education
2012 Update

ARCHITECTURE & CONSTRUCTION



Presented by Kathryn Frederick

Hillsborough County Teacher In-Service
Wednesday, August 15, 2012

Outline

- Architecture & Construction Program Updates
- Academic Alignment
- Industry Credentials
- STEM Program List
- Website Updates

Architecture & Construction Program Updates

Architecture & Construction

New programs for 2012-2013

- Introduction to Architecture & Construction
- Introduction to Architecture & Construction and Career Planning
- Fundamentals of Architecture & Construction



Architecture & Construction

Programs reviewed for 2012-2013

- Building Construction Technologies
- Brick and Block Masonry
- Cabinetmaking
- Carpentry
- Civil Engineering Aide
- Electrician
- Electricity
- Painting and Decorating
- Plumbing Technology

Architecture & Construction

Programs under review for 2013-2014

- Air-Conditioning, Refrigeration & Heating Technology
- Refrigeration Technology
- Tile Setting
- Air-Conditioning, Refrigeration & Heating Systems Technology (AAS)
- Construction Electricity Management (AAS)

Architecture & Construction

Programs to be daggered for deletion in 2013-2014

- Concrete Masonry
- Industrial Pipefitter
- Structural Steel Work
- Surveying and Mapping Technology
- Naval Architecture and Yacht Design

Architecture & Construction

Calling reviewers for 2014-2015

- Building Trades & Construction Design Technologies
- Drafting Programs (all Secondary & PSAV)
- Commercial & Industrial Insulation
- Plastering
- Roofing
- Building Construction Technology (AS/AAS)
- Carpentry Management (AS/AAS)
- Construction Management Technology (AS/AAS)

Academic Alignment

Academic Alignment

- Identify academic standards within CTE programs
- Expert math / science teachers
- Expert CTE teachers

Academic Alignment

- What did we find?



**LOTS OF
MATH & SCIENCE
IN CTE CLASSES!!!**

Academic Alignment

Fully aligned:

- Building Construction Technologies
- Drafting / Architectural Drafting
- Energy Technician
- Solar Energy Technology

Academic Alignment

Program Level:

Building Construction Technologies

Course	Math			Science								
	ALG1	ALG2	GEO	APH	ASGH	BIO1	CHM1	ESS	GEN	MS1H	PS	PHY1
Building Construction Technologies 1	4/36 11%	2/41 5%	31/45 69%	1/53 2%	1/52 2%	2/56 4%	3/55 5%	1/58 2%	1/35 3%	1/42 2%	4/56 7%	#
Building Construction Technologies 1	4/36 11%	#	8/45 18%	1/53 2%	5/52 8%	4/56 7%	5/55 9%	2/58 3%	1/35 3%	5/42 12%	10/56 18%	5/53 9%
Building Construction Technologies 3	9/36 25%	3/41 7%	30/45 67%	1/53 2%	2/52 4%	4/56 7%	4/55 7%	2/58 3%	1/35 3%	7/42 17%	5/56 9%	1/53 2%
Building Construction Technologies 4	3/36 8%	#	4/45 9%	#	#	#	#	1/58 2%	#	#	#	1/53 2%
Building Construction Technologies 5	5/36 14%	#	2/45 4%	#	1/52 2%	#	#	1/58 2%	#	#	#	1/53 2%
Building Construction Technologies 6	#	#	#	#	#	#	1/55 2%	#	#	#	1/56 2%	#
Building Construction Technologies 7	2/36 6%	#	1/45 2%	#	1/52 2%	#	2/55 4%	1/58 2%	#	1/42 2%	5/56 9%	6/53 11%

** Alignment pending

Alignment attempted, but no correlation to academic course.

Academic Alignment

Course Level:

Building Construction Technologies 3

Math		Science					
Algebra 1	9/36 25%	Biology 1	4/56 7%	Anatomy/Physiology Honors	1/53 2%	Astronomy Solar/Galactic Honors	2/52 4%
Algebra 2	3/41 7%	Chemistry 1	4/55 7%	Genetics	1/35 3%	Marine Science 1 Honors	7/42 17%
Geometry	30/45 67%	Physics 1	1/53 2%	Earth-Space Science	2/58 3%	Physical Science	5/56 9%

** Alignment pending

Alignment attempted, but no correlation to academic course.

Industry Credentials

Air-Conditioning, Refrigeration & Heating Technology (PSAV)

Current Perkins TSA Linkages:

- AC, Heating & Refrigeration Institute (AHRI)
 - Commercial Refrigeration ICE
 - Residential AC & Heating Certification *
 - Light Commercial AC & Heating
- NATEX
 - Air Conditioning Service Technician *
 - Air Conditioning Specialization

* On CAPE Funding List

Air-Conditioning, Refrigeration & Heating Technology (PSAV) cont.

Current Perkins TSA Linkages:

- **NCCER HVAC Levels 1-4 ***
- Refrigeration Service Engineer's Society Certificate Member
- HVAC Excellence
 - **HEAT & HEAT+ ***
 - Electric Heat
 - Gas Heat
 - Light Commercial Air Conditioning
 - Residential Air Conditioning

* On CAPE Funding List

Refrigeration Technology

Current Perkins TSA Linkages:

- HVAC Excellence
 - HEAT & HEAT+ *
 - Electric Heat
 - Gas Heat
 - Light Commercial Air Conditioning
 - Residential Air Conditioning
- NATEX
 - Air Conditioning Service Technician *
 - Air Conditioning Installation Specialization
- NCCER HVAC Levels 1-4 * * On CAPE Funding List

Cabinetmaking

Current Perkins TSA Linkages:

- NCCER Cabinetmaking
- **NCCER Carpentry Levels 1- 4 ***
- NOCTI Cabinetmaking



* On CAPE Funding List

Carpentry

Current Perkins TSA Linkages:

- NCCER
 - Carpentry Levels 1- 4 *
 - Advanced Carpentry Level 4
 - Finish Carpentry Level 2
 - Form Carpentry Level 3
- NOCTI Carpentry



* On CAPE Funding List

Building Construction Technologies (PSAV)

Current Perkins TSA Linkages:

- NOCTI Home Builders Institute / NAHB
- NCCER
 - Carpentry Levels 1- 3 *
 - Construction Technology *
 - Masonry Level 1 *
 - Painting Levels 1-3 *
 - Plumbing Levels 3 – 4 *
 - Project Management *
 - Roofer Levels 1- 4 *



* On CAPE Funding List

Electricity

Current Perkins TSA Linkages:

- NCCER Electrical Levels 1-4 *
- NOCTI Electrical Occupations



* On CAPE Funding List

Electrician

Current Perkins TSA Linkages:

- NCCER
 - Electrical Levels 1-4 *
 - Industrial Maintenance, Electrical & Instrumentation Technician Levels 1-3



* On CAPE Funding List

Plumbing Technology

Current Perkins TSA Linkages:

- NCCER
 - Pipefitting Level 4 *
 - Plumbing Levels 1- 4 *



* On CAPE Funding List

Architectural Drafting

Current Perkins TSA Linkages:

- American Drafting & Design Association
 - Certified Drafter- Architectural *
 - Autodesk
 - AutoCAD: User * / Associate * / Professional *
 - AutoCAD Civil 3D: Associate *
 - Inventor: User * / Associate *
 - Revit Architecture: Associate * / Professional *
 - NOCTI
 - Architectural Drafting
- * On CAPE Funding List

Electrical / Mechanical Drafting

Current Perkins TSA Linkages:

- Autodesk
 - AutoCAD: User * / Associate *
 - AutoCAD Civil 3D: Associate *
 - Inventor: User * / Associate *
 - Revit Architecture: Associate * / Professional *



* On CAPE Funding List

Structural Drafting

Current Perkins TSA Linkages:

- Autodesk
 - AutoCAD: User * / Associate *
 - Autodesk Inventor: User * / Associate *
 - AutoCAD Civil 3D: Associate * / Professional *
 - Inventor: User * / Associate *
 - Revit Architecture: Associate * / Professional *

* On CAPE Funding List

STEM List Updates

'STEM' Program List

- Now includes programs from multiple clusters:
 - Agriculture
 - Architecture & Construction
 - Energy
 - Engineering & Technology Ed
 - Health Science
 - IT
 - Manufacturing
- Secondary, PSAV and Degree Programs

Architecture & Construction STEM Programs:

- Architectural Drafting
- Building Construction Technologies
- Civil Engineering Aide
- Drafting
- Drafting PSAV
- Electrical Drafting
- Electronic Drafting
- Mechanical Drafting
- Structural Drafting
- Civil Engineering Technology

Contact Information

Kathryn Frederick

Architecture & Construction

Energy

(850) 245-9016

Kathryn.Frederick@fldoe.org

Division of Career and Adult Education

Florida Department of Education

325 W Gaines Street, # 701

Tallahassee, Florida 32399