




**Career and Technical Education  
ETO Summer Institute**

August 8-12, 2011



**Pathways to Prosperity:**  
*Meeting the Challenge of Preparing  
Young Americans for the 21st Century*

Harvard Graduate School of Education  
February 2011

## *Meeting the Challenge of Preparing Young Americans for the 21st Century*




- Report contends that our national strategy for education and youth development has been too narrowly focused on an academic, classroom-based approach.
- In response, the report advocates development of a comprehensive pathways network to serve youth in high school and beyond.


## **Three essential elements**



- The first is the development of school reform that embraces multiple career pathways
- Second, employers play an expanded role in supporting the pathways system, providing more opportunities for work-based learning and internships.
- Third, a new social compact between society and our young people, that by the time they reach their mid-20s, every young adult will be equipped with the education and experience necessary to lead a successful life.

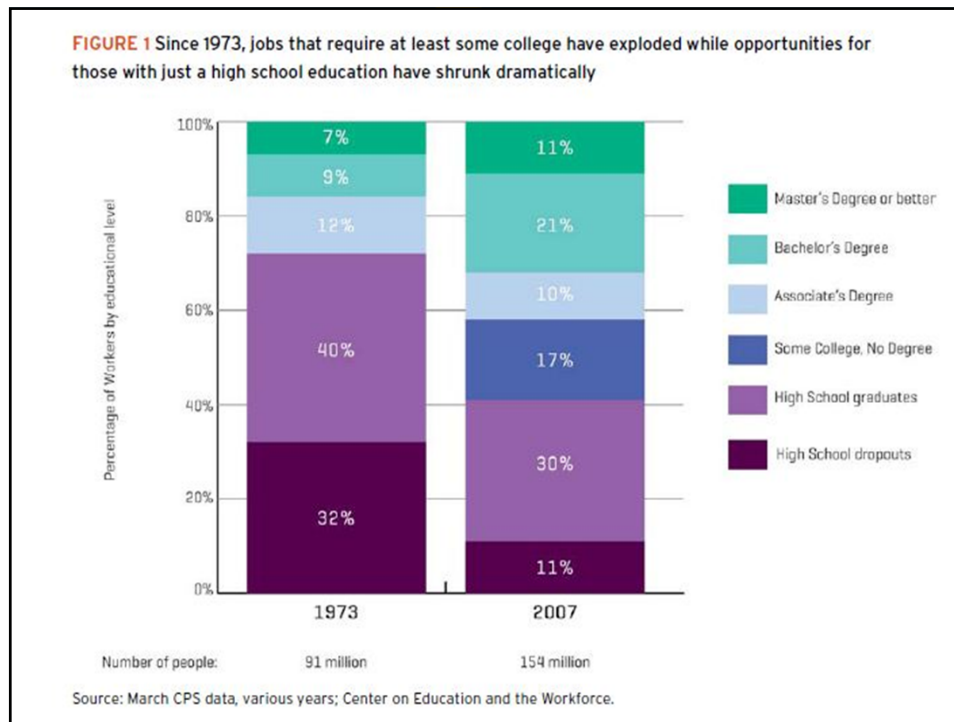


- Third, we need a new social compact between society and our young people, that by the time they reach their mid-20s, every young adult will be equipped with the education and experience he or she needs to lead a successful life as an adult.



## Need Multiple Pathways

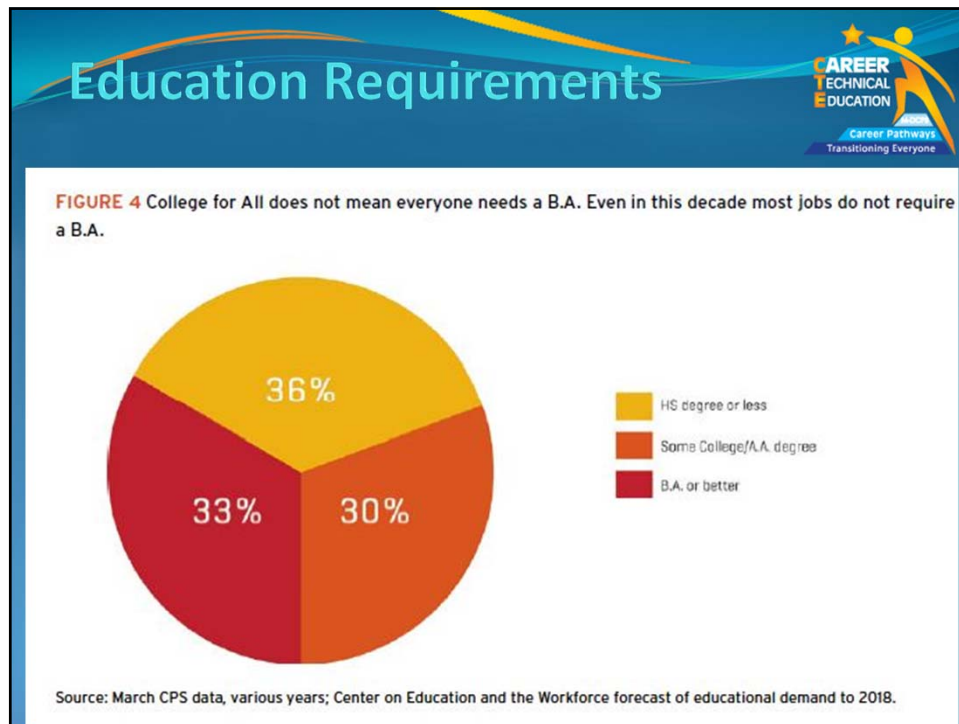
- ...too much emphasis on a single pathway to success: attending and graduating from a four-year college. Yet only 30 percent of young adults successfully complete this preferred pathway.



## B.A. for only a third of jobs?



- United States is expected to create 47 million jobs in the 10-year period ending in 2018, only a third of these jobs will require a bachelor's or higher degree.
- Almost as many jobs – some 30 percent – will only require an associate's degree or a post-secondary occupational credential.



## Future Careers

- The Georgetown Center projects that 14 million job openings—nearly half of those that will be filled by workers with post-secondary education—will go to people with an associate’s degree or occupational certificate.
- Many of these will be in “middle-skill” occupations such as electrician, and construction manager, dental hygienist, paralegal and police officer.

## Middle Skilled Jobs



- Demand for middle-skilled professionals is exploding in the nation's hottest industry, healthcare, which has added over half a million jobs during the Great Recession.
- Openings for registered nurses and health technologists—positions that typically require an associate's degree—are expected to grow by more than 1 million by 2018.

## Certificates



- Also exceptionally rapid growth in healthcare support jobs - nursing aide, home health aide and attendant. Though such positions are still open to high school graduates, they are increasingly filled by people with some post-secondary education or a certificate.
- 27 percent of people with post-secondary licenses or certificates—credentials short of an associate's degree—earn more than the average bachelor's degree recipient.

## Preparing for Jobs of Tomorrow




- The Georgetown Center is hardly alone in concluding that “middle skill” jobs will offer well-paying opportunities for those with less than a B.A.
- Economists Harry Holzer and Robert Lerman have made this case in several recent papers.
- And in a July 2009 report—“Preparing the Workers of Today for the Jobs of Tomorrow”—the Council of Economic Advisors concluded that the fastest job growth is likely to come “among occupations that require an associate’s degree or a post-secondary vocational award.”

## Models of 21<sup>st</sup> Century CTE




In recent years, we’ve witnessed the emergence of a growing number of rigorous, high-quality national models that demonstrate what career and technical education can achieve in the 21st century. Take **PROJECT LEAD THE WAY**, which was developed to introduce high school students to engineering. Since it was launched in 12 New York high schools in 1997, PLTW has expanded to nearly 3,500 high schools in all 50 states, and currently serves more than 300,000 students. PLTW’s “Pathway to Engineering” program uses a uniform, rigorous curriculum that is designed as a four-year sequence of courses.



## Models of 21<sup>st</sup> Century CTE

And in 2007, **FLORIDA** passed an act that mandates comprehensive reform of CTE. The law requires that new CTE programs be designed to meet a real workforce need, and that CTE students should earn high-quality industry-recognized certifications, so they are more easily employable. To date over 20,000 young people have graduated with such an industry-recognized certificate. To help raise the prestige of CTE, the law also considers CTE courses equivalent to AP and other advanced academic courses in the state's grading system for high schools. A core aim of Florida's new approach is to raise the graduation rate by offering students more high-quality, relevant programs of study.



## Second Element

- Second, that our nation's employers play a greatly expanded role in supporting the pathways system, and in providing more opportunities for young adults to participate in work-based learning and actual jobs related to their programs of study.



## Employer Engagement



**THE NATIONAL ACADEMY FOUNDATION** has become a leader in exposing students to career options through its national network of some 500 career academies serving more than 50,000 students in 41 states. NAF academies focus on one of four themes: finance; hospitality and tourism; information technology; and engineering. The capstone of the NAF experience is a paid internship, typically lasting 6 to 10 weeks. The internships are provided by more than 2,500 corporate partners. NAF's track record is truly impressive. Some 90 percent of its students graduate from high school, 23 percent higher than the overall graduation rate in the schools in which they operate. More than 80 percent go on to college, and 52 percent complete their degrees in four years. Perhaps most striking, a long-term study of career academies by MDRC found that students who attended career academies earned 11 percent more per year those who did not attend.<sup>43</sup>

## Employer Engagement




**U.S. FIRST** was co-founded in 1989 by Dean Kamen, one of America's most prolific inventors, to expose students to the excitement of engineering. FIRST offers four programs, beginning with students in early elementary school, and culminating in its FIRST Robotics Competition for high school students. In the robotics competition, teams of students work with adult mentors to assemble robots, and then take the finished robot to competitions where they compete against rival teams. Kamen launched the competition in a gym in Manchester, N.H. in 1992. Just 28 teams showed up. In 2011, 55,000 high school students are expected to take part. The growth has been fueled by over 3,000 corporate sponsors—including some of America's best-known companies—and 70,000 adult volunteers. It's clearly having an impact in hooking students on engineering. Surveys suggest FIRST participants are three times more likely than non-participants to major in engineering in college.<sup>41</sup>



## New Social Compact

- Third, the report contends that we need to develop a new social compact between society and our young people.
- The compact's central goal would be that by the time they reach their mid-20s, every young adult will be equipped with the education and experience he or she needs to lead a successful life as an adult.
- Achieving this goal would require far bigger contributions from the nation's employers and governments.



## New Direction for Career and Technical Education (CTE)

<b>"Then"</b> Vocational Education	<b>"Now"</b> CTE
For a Few Students (non college bound)	For all Students
For a Few "Jobs" (those requiring less than an associate's degree)	For all "Careers" (requiring technical degrees, baccalaureate degrees, professional degrees)
6 to 7 "Program Areas"	17 Clusters- 81 Pathways
In Lieu of Academics	Aligns/Supports Academics (integral partner in high school reform efforts)
High School Focused	High School and transition to postsecondary (certificate, 2 year, 4 year plus)



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# FACTE Conference

## CTE Updates

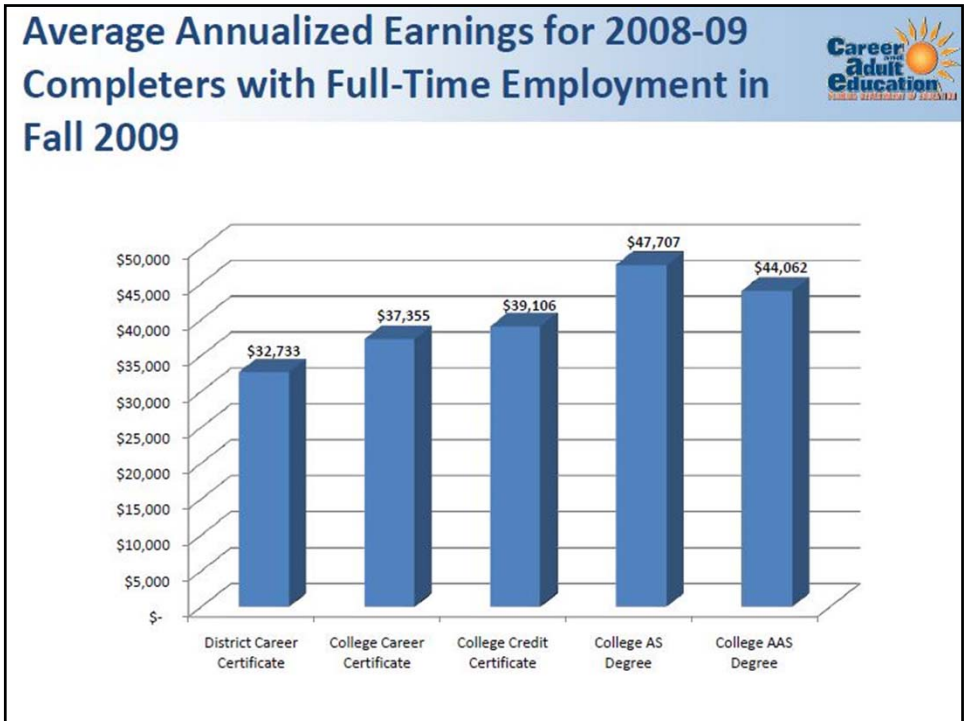




## Research Shows it WORKS!



- Students at schools with ... rigorous CTE programs have higher achievement in reading, math and science.  
(Southern Regional Educational Board)
- CTE concentrators take more and higher level math than their general track counterparts.  
(2002 National Center for Research in Career and Technical Education)



**OCPS website**

Orange County Public Schools  
**CAREER & TECHNICAL EDUCATION**  
 Career Pathways  
 Translating Everyone

Change It Up!  
 ReinvestMe.net

Orange County Public Schools  
**CAREER & TECHNICAL EDUCATION**  
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online instruction center

**FEATURED CLASSES**

Orange County Public Schools  
 Career & Technical Education Online Registration

Welcome to **CAREER & TECHNICAL EDUCATION**, a division of **Orange County Public Schools** in Orlando, Florida. Our technical schools and education partner, **Ed2Go**, offer affordable training, academic programs, and personal enrichment classes starting at \$99.

Top Classes include: *Creating Web Pages, Photoshop, Mystery or Travel Writing, IV Therapy, Speed Spanish, Wow, What a Great Event, Resort Management, and Hospitality Today: An Introduction!*

We offer a wide range of highly interactive courses that range from totally online, to blended courses with online lessons and hands-on labs with caring teachers. Online courses cover every topic from SAT Test Prep, Grant Writing, Discover Digital Photography, GED, Healthcare, High School credit, Hospitality, Computer Software, Job Skills, to Professional Growth and more.

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**Professional Development**

**Professional Development**

The Division of Career and Adult Education supports professional development for secondary and postsecondary career and technical education teachers and administrators by providing opportunities for statewide mini-grants for industry certification and professional development training and activities.

**Florida Association of Career and Technical Educators (FACTE)-Professional Development Opportunities**

**2011-12 ♦ Online Course Schedule**

**Career Academies ♦ Building Successful Foundations ♦ Component I**

- September 13, 2011 ♦ October 18, 2011
- Online Course ♦ Tuesdays ♦ 7:00 pm (Live Sessions)

**Project Based Learning ♦ A ♦ 5 ♦ Step Process for Integrating Curriculum**

- November 1, 2011 ♦ December 6, 2011
- Online Course ♦ Tuesdays ♦ 7:00 pm (Live Sessions)

**Career Academies ♦ Developing & Implementing Effective Evaluation Plans**

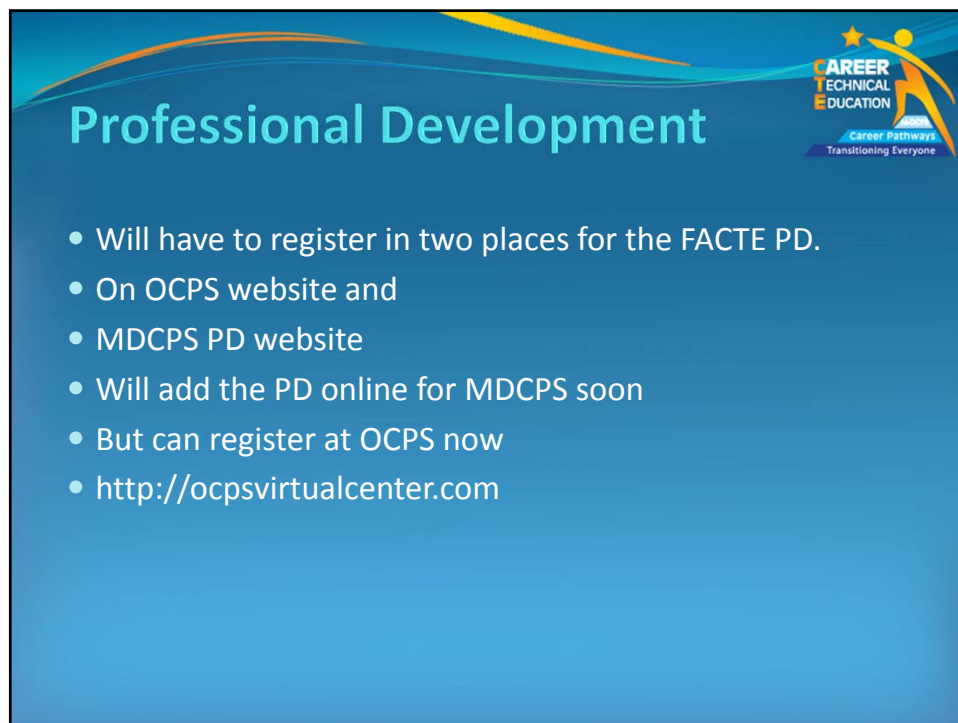
- January 24, 2012 ♦ February 28, 2012
- Online Course ♦ Tuesdays ♦ 7:00 pm (Live Sessions)

**Project Based Learning ♦ A ♦ 5 ♦ Step Process for Integrating Curriculum**

- April 10, 2012 ♦ May 15, 2012
- Online Course ♦ Tuesdays ♦ 7:00 pm (Live Sessions)


These six week programs include 18 hours of weekly online lessons and weekly live sessions. These hours represent only the time spent in the weekly online sessions and in the lessons. The research, creation, organizing and presentation of materials and activities outside of the sessions requires more time. Most teachers will spend an average of 10 hours per week over the six week period, hence the 60 recommended in-service points. That number more accurately reflects the intensity and number of work products produced.

Registration shall be completed online through the FACTE website: <http://www.facte.org> or <http://ocpsvirtualcenter.com>




**Professional Development**

- Will have to register in two places for the FACTE PD.
- On OCPS website and
- MDCPS PD website
- Will add the PD online for MDCPS soon
- But can register at OCPS now
- <http://ocpsvirtualcenter.com>



## Updated Curriculum

- Curriculum frameworks are being updated regularly
- Teachers should download curriculum every year
- Several committees of teachers, industry leaders and DOE CTE staff have been working on curriculum last few years



## IT Program Update

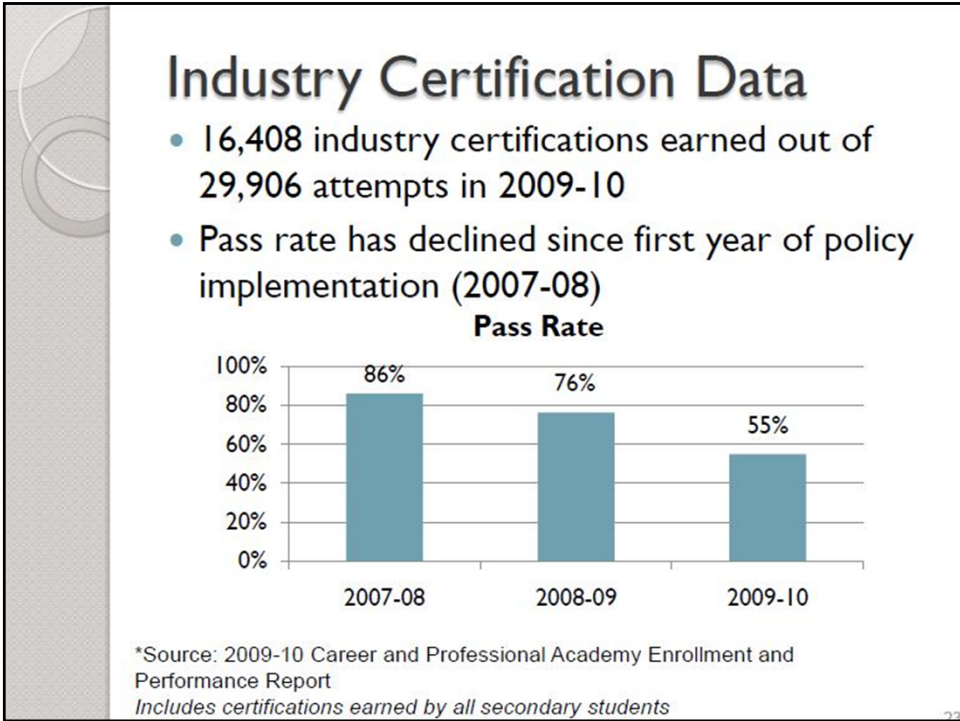
- Business Computer Programming
  - Being replaced by four new programs
    - Java Programming & Application Development
    - .NET Programming & Application Development
    - Database Programming & Application Development
    - Web Application Development
  - First four courses (600 hours) form programming core
  - Targets IEEE industry certification, following by MS
  - Current program goes into teach-out mode beginning 2012-13
  - Introduction to Information Technology course (8207310) remains as before
- PC Support Services
  - Being replaced by Technology Support Services
  - Computing environment has evolved
  - Tier 1 support must now embrace newer technologies
  - Driven by industry experts (including The Geek Squad)
  - Current program goes into teach-out mode beginning 2012-13
- ICT Essentials
  - Information & Communications Technology (ICT)
  - Middle school series of courses
  - Spans Office, web, digital, and Web 2.0 technologies
  - Rigor and scope surpasses IC3 certification
  - Substitute for IIT under consideration

# IT Program Update



- Web Development Curriculum Overhaul
  - Program implemented for 2011-12
  - Good reactions from around the state
- Information Technology
  - Being replaced by Applied Information Technology
  - Three-course core followed by elective/optional courses
    - Database
    - Programming
    - Web Development
    - Multimedia
    - Networking
    - Cybersecurity
  - Current program goes into teach-out mode beginning 2012-13
  - Introduction to Information Technology course (8207310) remains as before
- Applied Cybersecurity
  - 4-Year program taking shape
  - High profile committee
  - Cybersecurity certifying agencies (CompTIA & (ISC)<sup>2</sup>)
  - Students to access FACET cyber range
  - Current hope is to pilot later this year





## Top Ten Reported Earned Certifications, 2009-10

Certification Title	Number Earned
Adobe Certified Associate (Photoshop)	6,435
Adobe Certified Associate (Dreamweaver)	2,996
Certified Nursing Assistant (CNA)	1,307
Microsoft MCAS Bundle Certification	915
Certified Medical Administrative Assistant	717
Adobe Certified Associate (Flash)	688
NCCER Carpentry Fundamentals - Level I	572
National ProStart Certificate of Achieve	429
Autodesk Certified Associate - AutoCAD	275
Certified EKG Technician (CET)	186
CompTIA A+	186

\* Source: 2009-10 Career and Professional Academy Enrollment and Performance Report  
Includes certifications earned by all secondary students

## 2011 Legislative Changes- Weights

- Require SBE to adopt weights for each industry certification
  - Three weights: 0.1, 0.2, or 0.3
  - Criteria must be based 50 percent on rigor and 50 percent on employment value
  - Rigor = number of instructional hours, plus work experience hours, with bonus for certifications with a statewide articulation agreement
  - Employment Value = average annual openings, growth rate, and entry wage for the primary occupation linked to the certification
  - Calculation will be specified in the SBE rule for the industry certification process

## CAPE Academy Only



## Performance Criteria

- The performance criteria was changed in 2011 legislation (HBI255)
- *If the passage rate on an industry certification examination that is associated with the career and professional academy falls below 50 percent, the academy must discontinue enrollment of new students the following school year and each year thereafter until such time as the passage rate is above 50 percent or the academy is discontinued.*

## College Credits from Certification



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**Industry Certification to AAS/AS Degree**

- [Accredited Legal Secretary \(ALS\) \(TAFLP001\) to Office Administration](#) (PDF, 31KB)
- [ADDA Drafter Certification \(AMDDA001\) to Architectural Design and Construction Technology](#) (PDF, 19KB)
- [ADDA Drafter Certification \(AMDDA001\) to Drafting and Design Technology](#) (PDF, 19KB)
- [Adobe Certified Associate - Dreamweaver \(ADOBE010\) to Internet Services Technology](#) (PDF, 30KB)
- [Adobe Certified Associate - Flash \(ADOBE011\) to Internet Services Technology](#) (PDF, 30KB)
- [Air Conditioning Service Technician \(NATEX001\) to Air Conditioning, Refrigeration, Heating System Technology](#) (PDF, 30KB)
- [ASE Auto/Light Truck Tech: Engine Repair \(A1\) \(NIASE010\) to Automotive Service Management Technology](#) (PDF, 19KB)
- [ASE Auto/Light Truck Tech: Automatic Transmission/Transaxle \(A2\) \(NIASE005\) to Automotive Service Management Technology](#) (PDF, 19KB)
- [ASE Auto/Light Truck Tech: Manual Drive Train and Axles \(A3\) \(NIASE012\) to Automotive Service Management Technology](#) (PDF, 19KB)
- [ASE Auto/Light Truck Tech: Steering and Suspension \(A4\) \(NIASE014\) to Automotive Service Management Technology](#) (PDF, 19KB)
- [ASE Auto/Light Truck Tech: Brakes \(A5\) \(NIASE007\) to Automotive Service Management Technology](#) (PDF, 19KB)
- [ASE Auto/Light Truck Tech: Electrical/Electronic Systems \(A6\) \(NIASE008\) to Automotive Service Management Technology](#) (PDF, 19KB)
- [ASE Auto/Light Truck Tech: Heating and Air Conditioning \(A7\) \(NIASE011\) to Automotive Service Management Technology](#) (PDF, 19KB)
- [ASE Auto/Light Truck Tech: Engine Performance \(A8\) \(NIASE009\) to Automotive Service Management Technology](#) (PDF, 19KB)
- [Associate Level Certified Electronic Technician \(ISCET001\) to Electronic Engineering Technology](#) (PDF, 19KB)
- [Autodesk Certified Associate - AutoCAD \(ADESK016\) to Drafting and Design Technology](#) (PDF, 19KB)
- [Autodesk Certified Associate - AutoCAD Architecture \(ADESK017\) to Architectural Design and Construction Technology](#) (PDF, 19KB)
- [Autodesk Certified Associate - AutoCAD Architecture \(ADESK017\) to Drafting and Design Technology](#) (PDF, 19KB)
- [Autodesk Certified Associate - AutoCAD Civil 3D \(ADESK018\) to Civil Engineering Technology](#) (PDF, 30KB)
- [Autodesk Certified Associate - Revit Architecture \(ADESK020\) to Architectural Design and Construction Technology](#) (PDF, 31KB)
- [Autodesk Certified Professional - AutoCAD \(ADESK021\) to Drafting and Design Technology](#) (PDF, 30KB)
- [Autodesk Certified Professional - AutoCAD Architecture \(ADESK022\) to Architectural Design and Construction Technology](#) (PDF, 30KB)
- [Autodesk Certified Professional - AutoCAD Civil 3D \(ADESK023\) to Civil Engineering Technology](#) (PDF, 30KB)
- [Autodesk Certified Professional - Inventor \(ADESK024\) to Engineering Technology](#) (PDF, 30KB)
- [Autodesk Certified Professional - Revit Architecture \(ADESK025\) to Architectural Design and Construction Technology](#) (PDF, 30KB)

## CTE Website

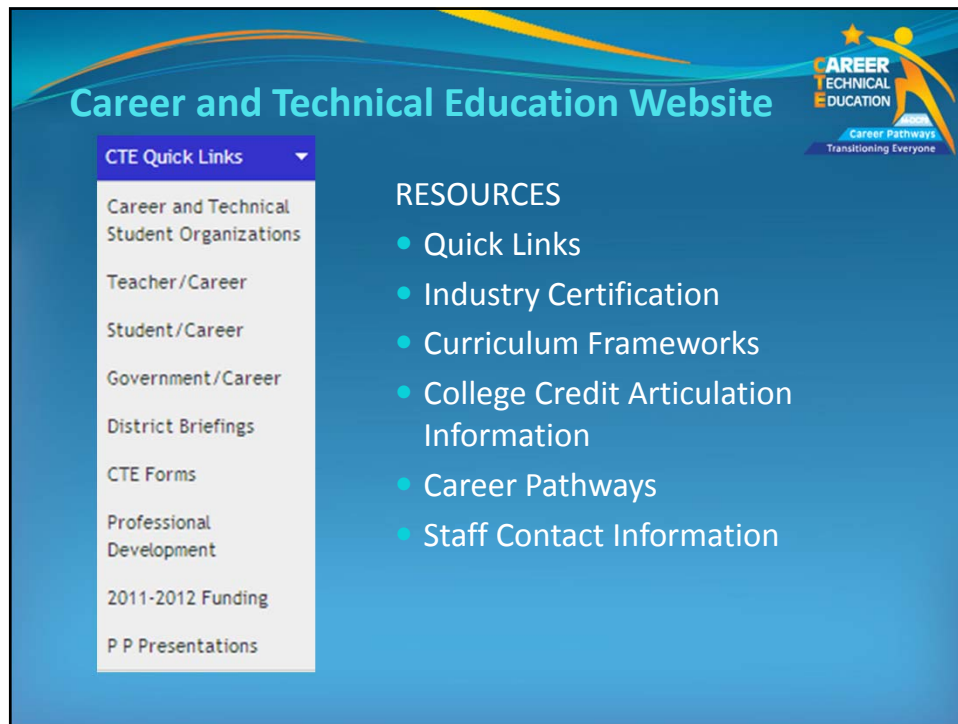
<http://dcte.dadeschools.net>



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The screenshot shows the homepage of the Career Technical Education website for Miami Dade County Public Schools. The header includes the school district name and logo. Below the header is a navigation menu with links for Home, Free College Credit, Industry Certification, Cape Academies, and Follow Us. A large image of students working together is featured with the text 'INDUSTRY CERTIFICATION'. At the bottom, there are icons representing various career clusters: Agriculture, Food & Natural Resources; Education & Training; Health & Human Services; Information Technology; Manufacturing; Architecture & Construction; Finance; and Marketing.



**Career and Technical Education Website**

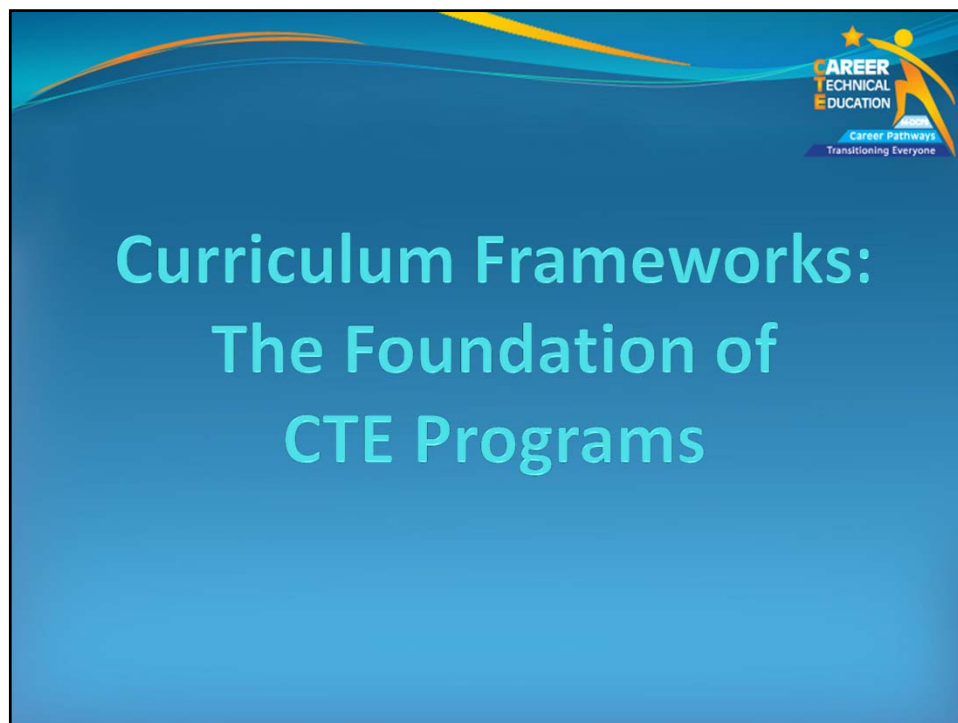
**CAREER TECHNICAL EDUCATION**  
Career Pathways  
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**CTE Quick Links**

- Career and Technical Student Organizations
- Teacher/Career
- Student/Career
- Government/Career
- District Briefings
- CTE Forms
- Professional Development
- 2011-2012 Funding
- P P Presentations


**RESOURCES**

- Quick Links
- Industry Certification
- Curriculum Frameworks
- College Credit Articulation Information
- Career Pathways
- Staff Contact Information



**CAREER TECHNICAL EDUCATION**  
Career Pathways  
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**Curriculum Frameworks:  
The Foundation of  
CTE Programs**



# Curriculum Frameworks

- Aligned by Career Clusters at FL-DOE website

**Academic Year 2011/2012 Curriculum Frameworks By Career Cluster**


The 2011/2012 curriculum frameworks in the following career clusters have not yet been finalized for planning purposes only.

- [Agriculture, Food & Natural Resources](#)
- [Architecture & Construction](#)
- [Arts, AV Technology & Communication](#)
- [Business, Management & Administration](#)
- [Education & Training](#)
- [Energy](#)
- [Finance](#)
- [Government & Public Administration](#)
- [Health Science](#)
- [Hospitality & Tourism](#)
- [Human Services](#)
- [Information Technology](#)
- [Law, Public Safety & Security](#)
- [Manufacturing](#)
- [Marketing, Sales & Service](#)
- [Science, Technology, Engineering & Mathematics \(STEM\)](#)
- [Transportation, Distribution & Logistics](#)

Frameworks include:

- Program or Strand Information
- Strand Sequence of Courses
- Course Standards & Benchmarks

<http://www.fl DOE.org/workforce/dwdframes/>



Revised: 1/8/2011


2011 – 2012

Florida Department of Education  
Curriculum Framework

Program Title: Multimedia Design Technology  
Program Type: Career Preparatory  
Career Cluster: Information Technology

	Secondary	PSAV
Program Number	0212400	0310200
CIP Number	0510.019900	0070.000000
Grade Level	9-12, 30, 31	30, 31
Standard Length	0 credits	1200 hours
Teacher Certification	BUS ED 1 @2 VOE @7 TEACH CBE @7 ELECT DP @7 G BUS DP @7 G CLERICAL @7 G SECRETAR @7 G STENOGR @4 TEC ELECT @7 G COMPU SCI 6 COMM ART @7 G TV PRO TEC @7 G I ART-TEC @1 @2 TEC ED 1 @2 PRINTING @7 G	BUS ED 1 @2 VOE @7 TEACH CBE @7 ELECT DP @7 G BUS DP @7 G CLERICAL @7 G SECRETAR @7 G STENOGR @4 TEC ELECT @7 G COMPU SCI 6 COMM ART @7 G TV PRO TEC @7 G I ART-TEC @1 @2 TEC ED 1 @2 PRINTING @7 G
CTISO	FBLA BFA	FBLA beta Lambda BFA
SUC Codes (all applicable)	Z/-1014	Z/-1014
Facility Code	212 <a href="http://www.fl DOE.org/edfacilities/rel.asp">http://www.fl DOE.org/edfacilities/rel.asp</a> (State Requirements for Educational Facilities)	
Targeted Occupation List	<a href="http://www.labormarketinfo.com/web/TargetedOccupationList.htm">http://www.labormarketinfo.com/web/TargetedOccupationList.htm</a>	
Perkins Technical Skill Attainment Inventory	<a href="http://www.fl DOE.org/workforce/perkins/perkins_resources.asp">http://www.fl DOE.org/workforce/perkins/perkins_resources.asp</a>	
Industry Certifications	<a href="http://www.fl DOE.org/workforce/tpca/default.asp">http://www.fl DOE.org/workforce/tpca/default.asp</a>	
Basic Skills Level	N/A	Mathematics: 10.0 Language: 10.0 Reading: 10.0

- Program number used for coding student schedules in ISIS
- Teacher certification
- CTSO-Career & Technical Student Organization
- Links to Targeted Occupation, Perkins TSA & Industry Certification lists



# Program/Strand Structure

**Program Structure**

This program is a planned sequence of instruction consisting of the Business Technology Education Core and two additional occupational completion points. Secondary or postsecondary students who have previously completed the Business Technology Education Core will not have to repeat the core. A student who completes the applicable competencies at any occupational completion point may either continue with the training program or exit as an occupational completer.

When offered at the post secondary level, this program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44 (3)(b), F.S.

The following table illustrates the PSAV program structure:

OCP	Course Number	Course Title	Course Length	SOC Code
A	OTA0040	Information Technology Assistant*	150	15-1041
B	MNA0080	Supervisor/Manager/Trainee	300	11-1021
C	MNA0082	Supervisor	450	11-1021


\* Note: OTA0040 is a core program.

The following table illustrates the Secondary program structure:

OCP	Course Number	Course Title	Length	SOC Code	Level
A	8200320	Keyboarding and Business Skills and Computer and Business Skills	.5 credit	15-1041	2
	8200330		.5 credit		2
	8209020	Computing for College and Careers or Introduction to Information Technology	1 credit		2
	8207310		1 credit		2
B	8215120	Business and Entrepreneurial Principles Legal Aspects of Business	1 credit	11-1021	3
	8215130		1 credit		3
C	8215140	Business Supervision 1	1 credit	11-1021	2
	8215150	Business Supervision 2	1 credit		2
	8215160	Business Supervision 3	1 credit		2

Frameworks also include:

- Sequence of strand courses
- Core courses & OJT if appropriate
- Occupational Completer Points (OCP)
- SPED Accommodations
- Vocational Gold Seal Scholarship



# CTE Course Standards

2011 - 2012

Florida Department of Education  
Student Performance Standards

**Course Title:** Culinary Arts 1  
**Course Number:** 8800510  
**Course Credit:** 1 credit

**Course Description:**

This course covers the history of the food service industry and careers in that industry. Also covered are state mandated guidelines for foodservice and how to attain foodhandler training certification; safety in the workplace; employability skills; leadership/teamwork skills; care and use of commercial culinary equipment; basic food science; basic nutrition; and following recipes in food preparation labs.

01.0 Identify career and job opportunities—The student will be able to:

- 01.01 Examine the history and development of the food service industry.
- 01.02 Identify occupations in the food service and hospitality industry and their impact on the economy.
- 01.03 Identify resources for a job search and conduct a job search using current technology for jobs at various levels of the industry.
- 01.04 Identify levels of training required for food service and hospitality occupations.
- 01.05 Identify professional organizations related to hospitality/foodservice.

02.0 Demonstrate language arts knowledge and skills—The student will be able to:

- 02.01 Locate, comprehend and evaluate key elements of oral and written information AF2.4
- 02.02 Draft, revise, and edit written documents using correct grammar, punctuation and vocabulary. AF2.5
- 02.03 Present information formally and informally for specific purposes and audiences. AF2.5
- 02.04 Follow verbal and written directions in the classroom and lab environment. AF2.9

- Frameworks include standards for Post-Secondary & Secondary courses

## Career Technical Student Organizations (CTSO)




**DECA** DECA, An Association for Marketing Students  
 Family, Career and Community Leaders of America (FCCLA)  
 The National FFA Organization (FFA)  
 Future Business Leaders of America-Phi Beta Lambda, Inc. (FBLA)  
 Health Occupations Students of America (HOSA)  
 Skills USA  
 Technology Students Association (TSA)  
 Florida Public Service Association (FPSA)








## Career Technical Student Organizations (CTSO)



- Project-based learning curriculum resources
- Develop Leadership skills and knowledge specific to career cluster
- Individual and group achievement through competitions, community service projects, etc.
- Encourage involvement in local, state, and national career & community projects
- Include in strategies for School Improvement Plan

## Career Technical Student Organizations (CTSO)



Funds available from CTE Perkins grant, district supplements and 6-select schools ETO RTTT grant funds

- Supplements for Teacher Advisors
- Travel Reimbursement
- Substitute Coverage
- For list of approved trips – Miami Dade County Public Schools Board Rule 6Gx13- 6A-1.22

## Career Academies



Programs can be offered as a stand-alone CTE program of study,  
OR as a strand of a career academy



## Career Academies



Many of the ETO schools offer CTE programs, as well as the following academies:

- Small Learning Community (SLC) academies
- National Academy Foundation (NAF) academies
- Career Academic & Professional Education (CAPE) academies
- National Career Academy Coalition model academy (North Miami Health Science Academy)

## CAPE student performance



Performance Indicator	Non-CAPE	Academies, No Certification	CAPE + Certification
Average GPA	2.56	2.60	3.00
Chronically Absent	16.7%	19.7%	11.4%
At Least One Disciplinary Action	21.3%	20.8%	11.0%
Dropout Rate	2.2%	1.2%	0.2%
12th Graders Earning Standard Diploma	78.6%	88.3%	97.4%
At Least One Accelerated Course	22.2%	22.0%	32.9%
Bright Futures Scholarship Eligible Seniors	27.9%	25.9%	43.7%

Source: FL-DOE DATA  
<http://www.fldoe.org/workforce/pdf/0910SecondaryCTE.pdf>

## CAPE Career Academies



- The Florida Career and Professional Education Act was created to provide a statewide planning partnership between the business and education communities
- in order to attract, expand, and retain targeted, high-value industry and to sustain a strong, knowledge-based economy.

## CAPE Career Academies



- CAPE Act awards extra FTE bonus funding upon graduation, for CAPE academy students who earn industry certification on the CAPE Funding List.
- M-DCPS Career Technical Education has 150 registered CAPE Academies.


## 2011 Legislative Changes- Weights

- Require SBE to adopt weights for each industry certification
  - Three weights: 0.1, 0.2, or 0.3
  - Criteria must be based 50 percent on rigor and 50 percent on employment value
  - Rigor = number of instructional hours, plus work experience hours, with bonus for certifications with a statewide articulation agreement
  - Employment Value = average annual openings, growth rate, and entry wage for the primary occupation linked to the certification
  - Calculation will be specified in the SBE rule for the industry certification process




## Performance Criteria

- The performance criteria was changed in 2011 legislation (HBI255)
- *If the passage rate on an industry certification examination that is associated with the career and professional academy falls below 50 percent, the academy must discontinue enrollment of new students the following school year and each year thereafter until such time as the passage rate is above 50 percent or the academy is discontinued.*



## Registration of CAPE Academies

- To become a registered CAPE academy, refer to briefing directions and
- contact Dr. Rose L. Martin, District Director, Division of Career and Technical Education, at 305-693-3030 or [rmartin1@dadeschools.net](mailto:rmartin1@dadeschools.net)
- Only those academies that have met the requirements of the Florida CAPE Act (SB 1232) can be recognized with this distinction.



## Registered Career and Professional Academies

- To view the FL-DOE Workforce Education Technical Assistance Papers for CAPE Academies, go to:  
<http://www.fldoe.org/workforce/technicalassistancepapers.asp>
- To view the FL-DOE 2009-10 Reporting Cycle for CAPE Act, go to:  
<http://www.fldoe.org/workforce/fcpea/pdf/0910AnnReportCy.pdf>



**CAREER  
TECHNICAL  
EDUCATION**  
Career Pathways  
Transitioning Everyone

## Senate Bill 1908


- **Beginning in the 2009-10** school year, 50% of the school's grade was based on the existing FCAT-related factors and the remaining 50% based on factors that include:
  - A school's **graduation rate**;
  - As valid data becomes available, the **performance and participation of students in AP, IB, Dual Enrollment, AICE, and industry certification**;
  - The **postsecondary readiness** of the students as measured by the SAT, ACT, or CPT;
  - The high school **graduation rate of at-risk students**;
  - The performance of a school's students on statewide standardized end-of-course assessments, when available; and
  - **Growth or decline** in the data components from year to year.

58



## School Accountability: New School Grade

<b>50% on FCAT Components</b> <b>800 Points Possible</b>	<b>50% on New High School Components</b> <b>800 Points Possible</b>
<p style="text-align: center;"><b><u>TOTAL POINTS</u></b></p> <p>(FCAT + New High School Components)</p> <p style="text-align: center;"><b>1600 Points Possible</b></p>	<p style="text-align: center;"><b><u>Grade Scale</u></b></p> <p><b>A &gt;= 1050</b></p> <p><b>B = 990 to 1049</b></p> <p><b>C = 870 to 989</b></p> <p><b>D = 790 to 869</b></p> <p><b>F &lt; 790</b></p>



## Acceleration Performance – EXAMPLE

John Doe takes 3 Dual Enrollment courses; 2 AP courses; and 1 industry certification course (that culminates in an exam). Here are his results:

Accelerated Course	Score/Grade	Successful Completion
Dual Enrollment Course 1	"C"	1
Dual Enrollment Course 2	"C"	1
Dual Enrollment Course 3	"D"	0
AP Course 1	2	0
AP Course 2 (in English)	4	2
Industry Certification Exam	Passed	1
<b>Total Successful Completions</b>		<b>5</b>
<b>His Weight in the Formula</b>		<b>1.40</b>



## Student Industry Certification Eligibility Requirements

- Only students in grades 10-12 should take industry certification exams.
- Students must be currently enrolled in or have successfully completed a career and technical education course that offers a minimum of 150 hours of instruction related to the area of certification.
- Students must have earned a 2.0 overall un-weighted GPA.



## CTE Support of Industry Certification

- Funding for software, equipment, textbooks, practice materials, test vouchers
- Working with testing vendors, negotiating pricing
- Helping with details of industry certification (some require hours of work experience plus exam, others have several parts of exam)
- Troubleshooting and working with ITS for installation of testing software as needed

## Implementation Process: Purchasing and Testing



- Teachers follow curriculum pacing guide if available for test preparation and testing timelines.
- Follow directions of most current briefing on industry certification– January of school year
- Follow eligibility requirements such as : CTE Students with a “2.0” in class based on Midterm grade is selected to take industry certification.
- Teachers submit Industry Certification Intent to Test Form to Principals , Principals submit to CTE office – January
- CTE Staff purchasing exams – February
- CTE Teachers create a testing schedule and coordinate with school administration for proctoring, etc.– March
- Teachers test students during April / May or earlier if appropriate, coordinate with FCAT and End of Course exam schedules

## Implementation Process: Reporting & Verification



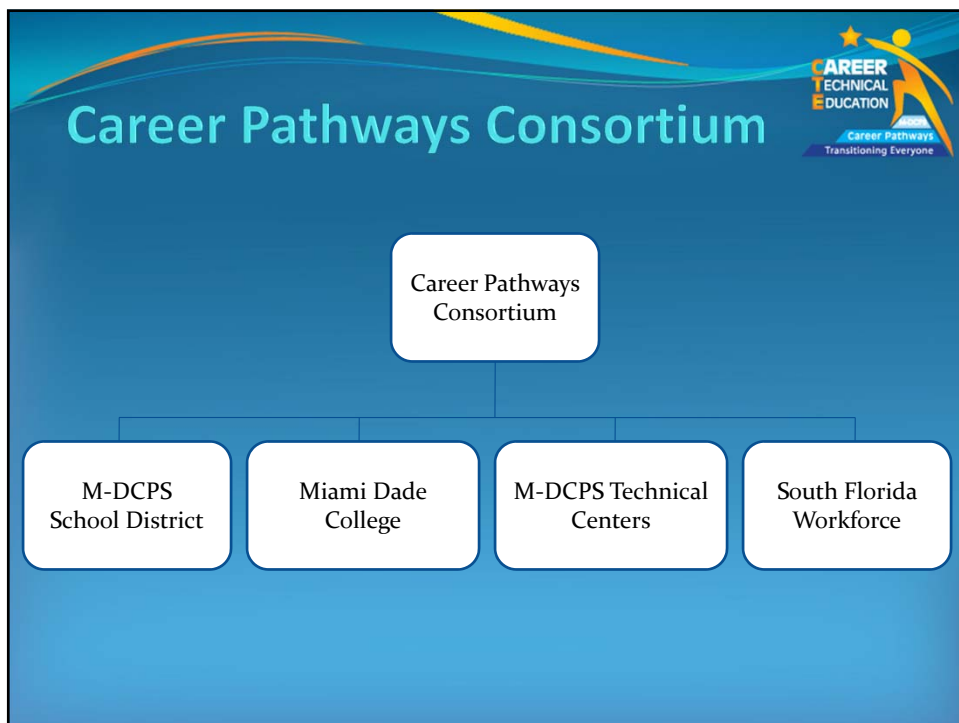
- CTE Teachers input Pass/Fail for certification in grade book as students take tests
- Teachers print reports from grade book, confirm correctness.
- School CTE administrator verify that Industry Certifications are reported correctly.
- Principals collect certificates and/or other documentation to keep for audit purposes.
- CTE work with M-DCPS Data dept. May and June to confirm data.
- CTE staff will coordinate testing workshops and technical assistance throughout the school year.





# Career Pathways

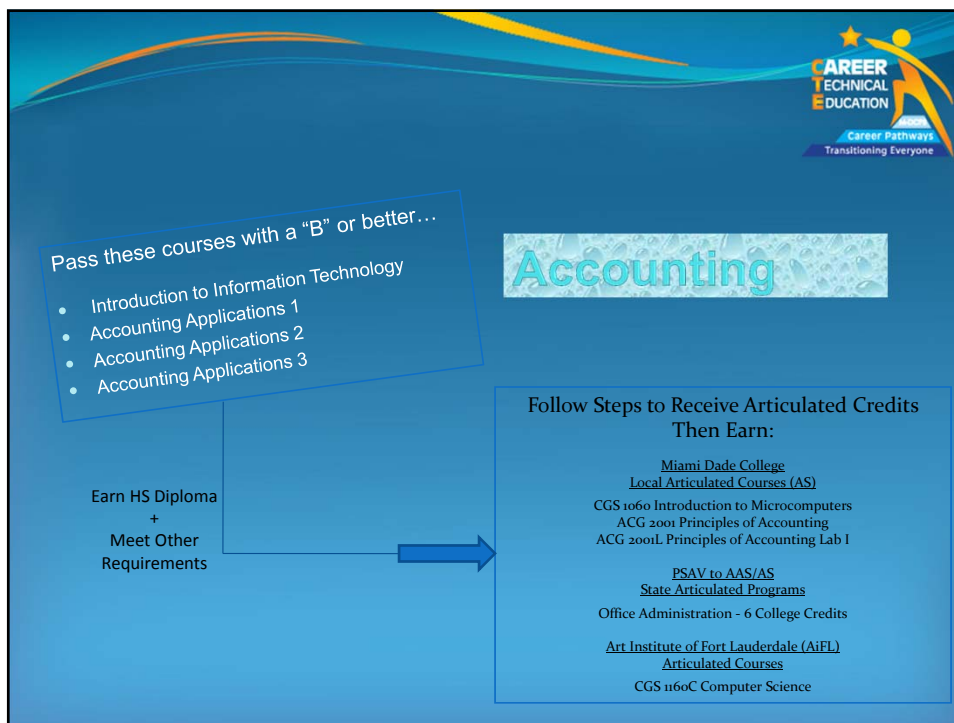
Earning Free College Credit



# Current Postsecondary Articulation Agreements



- Miami Dade College
- Art Institute of Fort Lauderdale
- Robert Morgan Educational Center
- Miami Lakes Educational Center
- Lindsey Hopkins Educational Center
- State-wide articulation with Industry Certification
- Students can also earn credits through dual enrollment



Pass these courses with a "B" or better...

- Introduction to Information Technology
- Accounting Applications 1
- Accounting Applications 2
- Accounting Applications 3

Earn HS Diploma  
+  
Meet Other  
Requirements


## Accounting

Follow Steps to Receive Articulated Credits  
Then Earn:


Miami Dade College  
Local Articulated Courses (AS)  
CGS 1060 Introduction to Microcomputers  
ACG 2001 Principles of Accounting  
ACG 2001L Principles of Accounting Lab 1

PSAV to AAS/AS  
State Articulated Programs  
Office Administration - 6 College Credits

Art Institute of Fort Lauderdale (AiFL)  
Articulated Courses  
CGS 1160C Computer Science


Career Cluster: <u>Business, Management and Administration</u>		Secondary CTE Program: <u>Business Technology Education</u>						
Career Cluster Pathway: <u>Accounting</u>		Eligible Recipient: <u>All Students</u>						
	16 CORE CURRICULUM CREDITS					8 ADDITIONAL CREDITS		
	ENGLISH	MATH	SCIENCE	SOCIAL STUDIES	OTHER REQUIRED COURSES	CAREER AND TECHNICAL EDUCATION COURSES	RECOMMENDED ELECTIVES (Aligned with State University System Admissions)	
						FINE ARTS (1 cdt)		
						PHYSICAL EDUCATION (1 cdt)		
4 credits	4 credits	3 credits, 2 with lab	3 credits	1 cdt	Major Area of Interest:			
Career Cluster of interest identified by students enrolled in required middle school career education course that includes interest assessment and career exploration through CHOICES and ePersonal Education Planner through FACTS.org.								
HIGH SCHOOL	9	English I	Algebra or higher	Earth & Space Science or Biology	World History	9th Grade Transition	Introduction to Information Technology 820731001 or Computing for College and Careers 8209020	
	10	English II	Geometry or higher	Biology	Elective	Foreign Language	Accounting Applications 1 820331001	
	11	English III	Algebra II or higher	Biology or Chemistry	American History	Foreign Language	Accounting Applications 2 820332001 or 820332002 (H)	
	12	English IV	Pre-calculus or Statistics	Chemistry or Physics or Physical Science	American Government / Economics	Foreign Language	Accounting Applications 3 820333001 (H)	
Dual enrollment courses may be used to satisfy high school graduation or Bright Futures Gold Seal Vocational Scholars course requirements - see the Articulation Coordinating Committee's Dual Enrollment Equivalency List and the Bright Futures Comprehensive Course Table.								

CAREER	Secondary career and technical education programs may lead to industry recognized certificates, occupational opportunities or postsecondary education options. Based on the Career Cluster of interest and identified career and technical education program, the following postsecondary options are available.		
	POSTSECONDARY	<b>Accounting</b> The English Center North Miami Adult Education Center Miami Beach Adult Education & Community Education	<b>Miami Dade College Associate of Science (AS)</b> Accounting Technology Marketing Management Business Administration Computer Programming Analysis  <b>Miami Dade College College Credit Certificate</b> Business Operations - International Business
CREDIT	<b>SAMPLE CAREER SPECIALTIES</b> (The Targeted Occupations List may be used to identify appropriate careers.)		
	Accounts Receivable/Payable Clerk Bank Teller Bookkeeping Clerk	Accounting Clerk Auditing Clerk	Accountant Auditor
CREDIT	<b>ARTICULATION AND CTE DUAL ENROLLMENT OPPORTUNITIES</b>		
	<b>Secondary to Technical Center (PSAV)</b>  <b>Occupational Completion Points</b> Information Technology Assistant (A) Computer Support Assistant (B) Network Support Technician (C) System Administrator (D)	<b>Dual Enrollment Opportunities</b> ENC 1101 English Composition I MAC 1105 College Algebra SPC 1017 Speech CGS 1060 Introduction to Computers ACG 2021 Principals of Accounting I & II ACG 2021L Principals of Accounting Lab I Tax 2000 Income Tax MAR 1011 Principals of Marketing PHY 2604 Critical Thinking CLP 1006 Psychology of Personal Effectiveness	<b>PSAV/PSV to AAS or AS to BS or BAS</b>  <b>Miami Dade College Local Articulated Courses (AS)</b> CGS 1060 Introduction to Microcomputers ACG 2001 Principles of Accounting ACG 2001L Principles of Accounting Lab I  <b>PSAV to AAS/AS</b> <b>State Articulated Programs</b> Office Administration - 5 College Credits  <b>Art Institute of Fort Lauderdale (AIFL)</b> <b>Articulated Courses</b> CGS 1160C Computer Science
<b>Possible Industry Certifications (Students):</b>			
Secondary:			
Postsecondary		Bookkeeping Certification CPA	



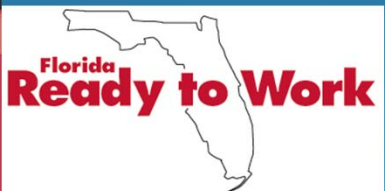
# Florida Ready to Work

FLORIDA READY TO WORK




FLORIDA'S  
NEW EMPLOYEE  
CREDENTIALING  
PROGRAM

[www.floridareadytowork.com](http://www.floridareadytowork.com)



Florida  
**Ready to Work**



# Florida Ready to Work

## *Benefits to Students*

- Provides students (jobseekers) with a standard credential that certifies their workplace readiness and ability to succeed on the job.
- The program measures a student's (jobseeker's) specific job skills and allows the student (jobseeker) to obtain a credential certifying his/her workplace skills.

## Florida Ready to Work Courseware



- Created by ACT
- Measure current skills, identify skill gaps and build skills.
- Applied Math – Workplace math- ie: calculating percentage discounts.
- Reading for Information – Using memos, letters, directions, signs, notices, bulletins, policies and regulations.
- Locating Information – Working with charts, graphs, tables, form, diagrams, etc.
- Online access from any computer, anytime, anywhere
- Tools to monitor student / jobseeker / employee progress!
- Spanish translation and text-to-speech features.

## General CTE Procedures



- End of Class Reports
- Equipment and Software Purchased by Perkins Grant
- Closing or Opening CTE Programs
- Auditing Teams
- RTTT Grants (Select Schools)

## End of Class Reports



- Report to state of completion point of students at the end of course
- Occupational Completer Points (OCP)
- MOCP – Modified OCP for ESE students available if needed
- Reports are picked up from ITS dept.
- Administrators should review completed reports with CTE dept. chair

## Equipment Needs Report



- A Weekly Briefing including a copy of the Career and Technical Education Equipment and Software Report is posted annually (usually Feb. or March)
- Each CTE teacher is required to complete and submit this report to school principal
- Principal reviews, signs and submits all reports to CTE office according to briefing timeline.
- Teachers may submit a copy to their instructional supervisor or CSS for review before PR signature.



## FLDOE Audit Monitoring & Compliance Teams



- Upon arrival at school sites, team members will have copies of an M-DCPS report that itemizes all grant funded equipment/software purchased for your school site.
- School sites must print copies of equipment inventory reports to identify the room location for all equipment listed on the M-DCPS report.
- School sites must have on file a Property Accounting form for all grant funded equipment that has been relocated.
- All grant funded equipment purchases must be used for activities and purposes stated in the Perkins grant application.

## Race to the Top Grants



- Six M-DCPS high schools chosen by FL-DOE CTE dept. to receive 2 year RTTT grant
- Jackson, Northwestern, Edison, BTW, Central & Southridge
- RTTT Task Force committee for academy alignment & implementing proposed grant strategies
- CTE Coach will be instructional coach for CTE teachers
- CTE Coach will be assisted by CTE ETO Support Specialist, Pamela Lopez 305-693-3034
- Grant purchases will be approved by Dr. Rose L. Martin, placed as approver after Principal in ERP system.