

# ***FLATE Updates***

39<sup>th</sup> ET Forum

St. Petersburg College - Clearwater

April 2013



Impact Florida. Lead Nationally.



ET Forum SPC SP 2013

[www.fl-ate.org](http://www.fl-ate.org)

[www.madeinflorida.org](http://www.madeinflorida.org)

# OUR VISION

FLATE will be Florida's leading resource for education and training expertise, leadership, projects, and services to promote and support the workforce in the high performance production and manufacturing community.



**Impact Locally, Lead Nationally**



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**Outreach**

**Curriculum Reform**

**Professional Development**



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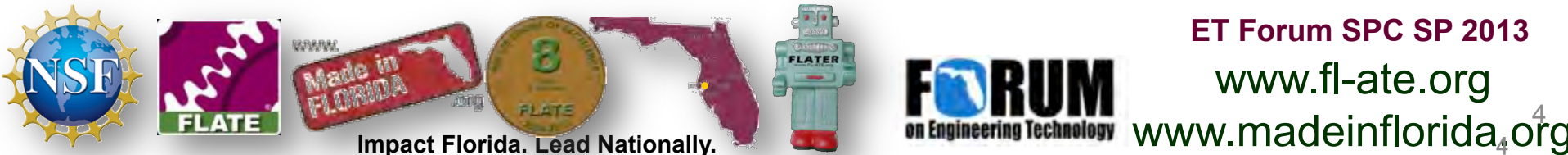
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# NSF Advanced Technological Education



*Partners with Industry  
for a New American Workforce*





# SCIENCE NATION

The Online Magazine That's All About Science for the People



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# FLATE - Florida Advanced Technological Education Center

## Industry Honors & Professional Recognition Program

### 2013



#### Awards Timeline

**April 2013** – Criteria published and nominations open at [www.fl-ate.org/awards](http://www.fl-ate.org/awards)

**August 31, 2013** – Nominations Close

**September 2013** - Award elections are made by FLATE IAC award subcommittee, followed by review and approval by the FLATE Executive Committee.

**October 2013** - Award recipients and principal nominators are notified of their selection.

**November/December 2013** - Awards presented during the Manufacturers Association of Florida (MAF) Annual Manufacturers Summit and Global Marketplace.



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# 2013 FLATE Awards



## Manufacturing Secondary Educator-of-the-Year

## Manufacturing Post-Secondary Educator-of-the-Year

## FLATE Industry Distinguished Service Award

2007 Ted Norman – Treasure Coast H. S.	2007 Meer Almeer – Brevard Comm. College	2007 Steve Lezman – PepsiCo/Tropicana
-------------------------------------------	---------------------------------------------	------------------------------------------

2008 Gil Burlew – Braden River H.S.	2008 Dr. Ed Niespodziany – CFCC – Ocala	2008 Anthony Fedd – BASF Corp.
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2009 Jim Matthews - Sarasota H.S.	2009 Norm Brahs – Atlantic Technical	2009 Mike Ennis - Harris Corporation
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2010 David Lintner- Ridge Community HS.	2010 Dean Eavey –Gulf Coast CC	2010 Art Hoelke- Knights Armament
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2011 Greg McGrew - Lakewood Ranch HS	2011 Bob Deckon – Florida Gateway College	2011 Mark Snyder–Conmed Linvatec
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<b>2012</b> Steve Portz – Space Coast HS	<b>2012</b> Adrienne Gould-Choquette – SCF	<b>2012</b> Peter Buczynsky–Pharmaworks, Inc
---------------------------------------------	-----------------------------------------------	-------------------------------------------------

**2013 ???**

**2013 ???**

**2013 ???**



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# FLATE's wiki "redo"

Welcome to FLATE's wiki...

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[www.flate.pbwiki.com](http://www.flate.pbwiki.com)

<p><b>"Made in Florida" and STEM Lesson Plans</b></p>  <p><i>For Middle &amp; High School Teachers</i></p>	<p><b>Career Education Resources</b></p> 	<p><b>The Toothpick Factory</b></p>  <p>A Simulation Game for Soft Skills</p>	<p>Modules for Advanced Technological Education</p> 
<p><b><u>Industry Tour Resources</u></b></p>  <p>Find pre-tour lesson plans, post-tour surveys, presentations and other resources for your <i>Made in Florida</i> manufacturing tour!</p>		<p><b><u>FLATE Presentations</u></b></p>  <p>Find conference &amp; workshop slides here.</p>	<p><b><u>High School Technology Initiative</u></b></p> 
<p><b>Read FLATE's monthly Newsletter!</b></p>  <p>Connecting Manufacturers, Educators &amp; Students with Florida's Workforce</p>		<p><b><u>FLDOE Career Resources</u></b></p> 	





# Summer Camps 2013

## Robotics (Tampa, Ocala, Lake City)

Introductory Robotics (Middle School) – camps  
GIRLS Introductory Robotics (Middle School)  
Advanced Robotics (Middle School)  
Engineering Camp (High School)

## EST2 Energy

Hillsborough (Middle School)

Jacksonville, Tallahassee, Cocoa (High School)

Composite – Manufacturing (Tallahassee)

Introductory



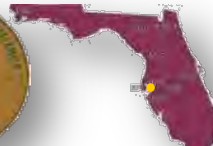
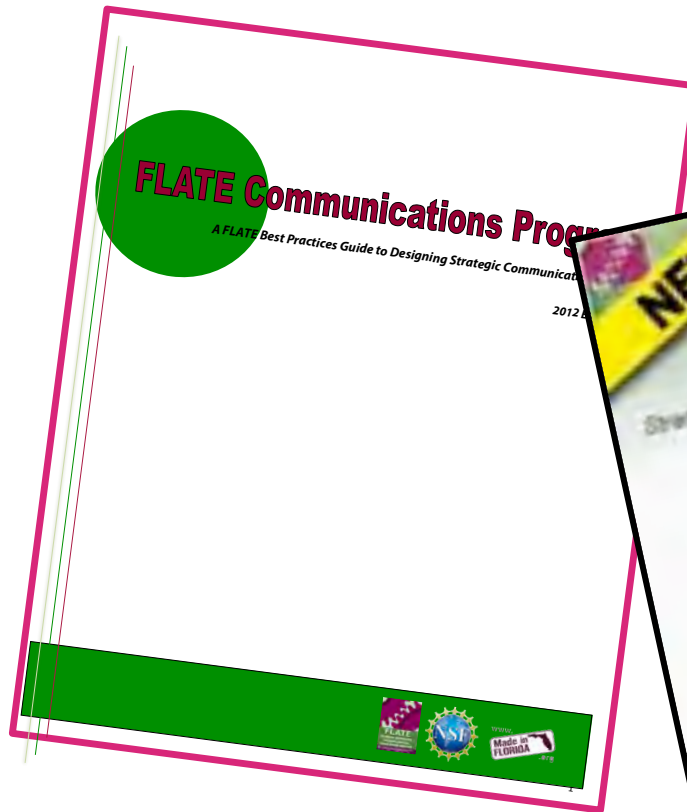
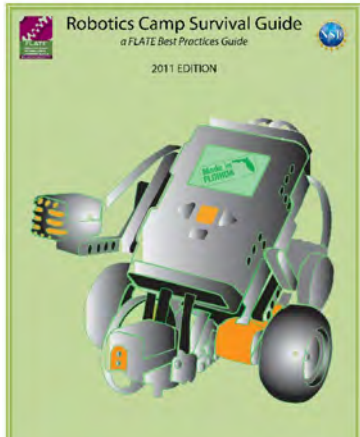
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# FLATE Outreach Best Practices



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# “Made in Florida” Presentation



**MADE IN FLORIDA**  
[www.madeinflorida.org](http://www.madeinflorida.org)

CASE NO. 14  
GROSS WT 280 KG

## Great careers are waiting for you!!

MADE IN FLORIDA ~ MADE IN FLORIDA ~ MADE IN FLORIDA ~ MADE IN FLORIDA

Discover products and careers “Made in Florida”

FLATE  
FLORIDA ADVANCED TECHNOLOGICAL EDUCATION CENTER

NSF  
www.  
MADE IN FLORIDA .org

Part 1: The FLATE  
Part 2: Great Career  
Use a Product  
Company Overviews  
Educational Outreach



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# MADE IN FLORIDA website

avorites Tools Help

Log In Solid Waste Management HCPLC Online Catalog abouttabs Suggested Sites

A product of the Florida Advanced Technological Education Center, FLATE

**www.madeinflorida.org**

Industry | Careers | Students | Educators | Contact Us

Why Manufacturing | E.T. Degree | Student Profiles | Salary Information | Company Profiles | News & Events | Videos | Camps & Workshops

## Manufacturing in Florida

...Good Jobs + Great Pay = GREAT

Earn Your E.T. Degree | Find a Great Career | ET Degree Hire a Graduate | Company Overviews | Educational Outreach



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[www.fl-ate.org](http://www.fl-ate.org)

[www.madeinflorida.org](http://www.madeinflorida.org)

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# MADE IN FLORIDA website

**HARRIS** [www.harris.com](http://www.harris.com)



Harris has transformed communications and information technology from the early printing press to the Space Age, and to today's fast-paced digital age. Company employees in Florida develop some of the world's most advanced communications and information networks, products and services. Harris Corporate headquarters are in Melbourne and the company has more than 6,200 employees just in Florida (16,000 worldwide).

**Communicating CAREERS!**

- Precision Machinist
- Configuration Specialist
- Antenna Design Engineer
- Composite Materials Technician
- Information Security Systems Engineer

**JABIL** [www.jabil.com](http://www.jabil.com)



Jabil is one of the world's largest electronic manufacturing services companies, providing customized design, manufacturing, distribution, and aftermarket services for some of today's largest companies. To ensure continuous financial success and growth, Jabil operates in multiple sectors including advanced services, computer storage, defense & aerospace, digital home & office, health care & instrumentation, industrial & clean tech products, materials technology, mobility EMC, packaging and the communication services. For the past 10 years Jabil has experienced double-digit growth due to its unwavering commitment to the right combination of services, solutions, location, systems, products and people.

**Customizing CAREERS!**

- Design Project Manager
- Structural Engineer Technician
- Design Technician
- Testing Supervisor
- Quality Assurance

**PRATT & WHITNEY** [www.prattcareers.com](http://www.prattcareers.com)



Pratt & Whitney has supported the Space Shuttle program since its beginning and has powered missions to nearly every planet in the solar system! The company is located in West Palm Beach and is an aircraft engine manufacturer of products used in civil and military aircraft. As one of the "big three" aero-engine manufacturers, it competes with General Electric and Rolls-Royce. In addition to aircraft engines, Pratt & Whitney manufactures gas turbines for industrial and power generation, marine turbines, and rocket engines.

**High-flying CAREERS!**

- Production Specialist
- Maintenance Technician
- Product Marketing Specialist
- Quality Engineering Technician
- Electronics Assembler & Tester

**PLASMA-THERM** [www.plasmatherm.com](http://www.plasmatherm.com)



Plasma-Therm is a U.S. based manufacturer of etch and thin film deposition equipment. At the company's St. Petersburg facility, etching equipment is produced to make semiconductor chips which are essential components of many products that we use every day. This equipment is used in devices such as cell phones, night vision goggles, LED lights and even solar panels on orbiting satellites! Employees wear caps and masks while fine-tuning machines as the microprocessors produced by Plasma-Therm are so small that a human hair-sized defect could result in an unusable microchip.

**Glowing CAREERS!**

- Process Engineer
- Assembly Technician
- Maintenance Specialist
- Manufacturing Technician
- Quality Control Technician

**MITSUBISHI POWER SYSTEMS** [www.mpsys.com](http://www.mpsys.com)



The Florida Manufacturing Center of Mitsubishi Power Systems Manufacturing and Maintenance provides a wide range of services, including design, engineering, manufacturing, and maintenance services. The facility is located in St. Petersburg and is a leader in the production of gas turbine engines and related components. The facility is also a leader in the production of gas turbine engines and related components.

**Computer-aided CAREERS!**

- CNC Machinist
- Metal Finisher/Blender
- Component Sourcing
- Product Control Technician
- Quality Engineer

**CONMED LINVATEC** [www.conmed.com](http://www.conmed.com)



ConMed Linvatec (Least Invasive Technology) is a global leader in the fields of arthroscopy (inspection of the inside of a joint using an endoscope), medical video systems and powered surgical instruments. Located in Largo, the company is at the forefront of technology for a wide variety of minimally invasive and orthopedic (knee, spine, ligament) surgery procedures. ConMed Linvatec manufactures arthroscopic instruments, implants, and tissue repair systems used by orthopedic surgeons. There are a lot of great things you could be designing and testing in the field of medical device manufacturing.

**Cutting-edge CAREERS!**

- Production Engineer
- Engineering Technician
- Manufacturing Technician
- Medical Device Specialist
- Quality Assurance Supervisor

**EMBRAER** [www.embraer.com](http://www.embraer.com)



Embraer is one of the largest aircraft-makers in the world and has produced more than 5,000 planes operating in 32 countries and on five continents! The company focuses on commercial and executive aviation and defense systems. Embraer has facilities in Melbourne and Ft. Lauderdale, as well as throughout the world. At the plant in Broward County, where 200 skilled workers are employed, two models of the Phenom, the company's hot-selling new executive jet are assembled.

**Mile high CAREERS!**

- Simulation Engineer
- Quality Assurance Inspector
- Aircraft Maintenance Technician
- Electronics Assembly Technician
- Configuration Technical Specialist

**SIGNATURE BRANDS** [www.signaturebrands.com](http://www.signaturebrands.com)



With the rapid growth of Signature Brands, the plant is located in Ocala, Florida received expansion and a new distribution center facility to better service the expanded volume. In May 2008, Hero purchased MAC's 50% of Signature Brands. Joined together, Signature Brands and Hero are now the world's leading supplier of dessert delectable products with leadership in Germany, Poland, U.K., Canada, Australia and the U.S. Both have given to this leadership position through product innovation, commitment to manufacturing, and with quality the cornerstone for all products.

**Sweet CAREERS!**

- Production Supervisor
- Production Technician
- Quality Assurance Inspector
- Processing Supervisor
- Product Testing Technician

**DRAPER LABORATORY** [www.draper.com](http://www.draper.com)



Draper is a not-for-profit research and development laboratory named for its founder, Dr. Draper. Draper's engineering work led to the development of navigation systems for manned and unmanned vehicles for aerospace, land and air. From military defense to space exploration, the Lab works to find innovative engineering solutions. Draper has a research and development center at the University of South Florida in Tampa and a fabrication center in St. Petersburg.

**Innovating CAREERS!**

- Biomedical Engineer
- Simulation Technician
- Laboratory Technician
- Micromechanical Technician
- System Integration Designer

**HOERBIGER** [www.hoerbiger.com](http://www.hoerbiger.com)



HOERBIGER manufactures components and provides services designed to ensure critical industrial equipment performs more reliably with fewer harmful emissions. This equipment includes engines, compressors and turbochargers. Hoerbiger also designs and manufactures transmission components for the automotive industry, including clutches used for braking systems in heavy-duty vehicles like tractors. The company has manufacturing facilities worldwide and in Florida (Pompano Beach). Set your standards high and enjoy a challenging career!

**Controlling CAREERS!**

- Drafting Specialist
- Bondroom Technician
- Test System Supervisor
- Product Control Manager
- Quality Control Technician

**PGT** [www.pgtindustries.com](http://www.pgtindustries.com)



After the destruction from Hurricane Andrew in 1992, PGT established itself as a leader in the manufacture and sales of impact-resistant windows and doors for homes and commercial buildings. PGT grew from just four employees in 1980 to 1,200 at its manufacturing facility in Venice. A total of 15 different window and door lines are available offering hurricane protection, security against intruders, noise reduction, and UV filtering. There are many doors of opportunity with PGT.

**Crystal Clear CAREERS!**

- Final Product Tester
- Mechanical Engineer
- Quality Control Technician
- Production Team Supervisor
- Mechanical Maintenance Technician

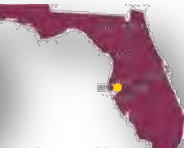
**VALPAK** [www.valpak.com](http://www.valpak.com)



Valpak is a results-driven marketing company that offers advertisers full service, targeted, direct marketing solutions and support services. Valpak is an affiliate of Cox Enterprises, Inc., one of America's leading media companies. Valpak coupons are produced in a highly automated facility in St. Petersburg. The facility is so automated that no one touches the coupons and you open the envelope that comes in the mail.

**Valuable CAREERS!**

- Process Technician
- Industrial Engineer
- Automation Specialist
- Integrated Systems Expert
- Industrial Maintenance Technician



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# ET Degree Framework Review



## Highlights from the ET Core

- 12 new benchmarks were added (11 standards & 127 benchmarks)
- 1 standard “word smithed”
- 7 of the new benchmarks focused on sustainability related skills  
“describe sustainable practices in production facilities”
- 12 benchmarks were deleted as obsolete /no longer needed
- over 45% of benchmarks were “word smithed” for clarity
- 2 educators & 6 industry reps conducted the reviewed



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# ET Degree Updates

Engineering Technology Education

At a Community College near you!

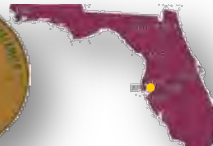
Good jobs, great pay, bright future



## Specializations Review – happening now!

- Adv Manufacturing – *Alex Anzalone*
- Adv Technology – *Meer Almeer*
- Alternative Energy Technology – *Adrienne Gould-Choquette*
- Biomedical Systems – *Brad Jenkins*
- Digital Design & Modeling – *Brad Jenkins*
- Electronics - *Bruce Heshner*
- Mechanical Design & Fabrication - *Bruce Batton*
- Quality – *Brad Jenkins*

**Please help with this activity to update the ET Frameworks**



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**FORUM**  
on Engineering Technology

ET Forum SPC SP 2013

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# ET Degree Updates

Engineering Technology Education

At a Community College near you!

Good jobs, great pay, bright future



- **APPROVED NEW SPECIALIZAITONS**

- Industrial Energy Efficiency

- Digital Manufacturing

- **APPROVED NEW CREDIT CERTIFICATES**

- Mechatronics Certificate (Adv Mfg: 30 credit hours)

- Industrial Energy Efficiency Specialist (24 credit hours)

- Rapid Prototyping Specialist (12 credit hours)

- Ongoing validation of MSSC – ET Core alignment

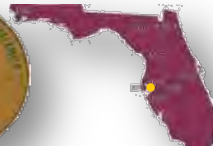
- Common program outcomes & common course outcome

- Made in Florida ET page

- “Hire an ET Grad” – campaign for industry

- Populating ETshare wiki

- AutoCAD video modules – *coming soon!*



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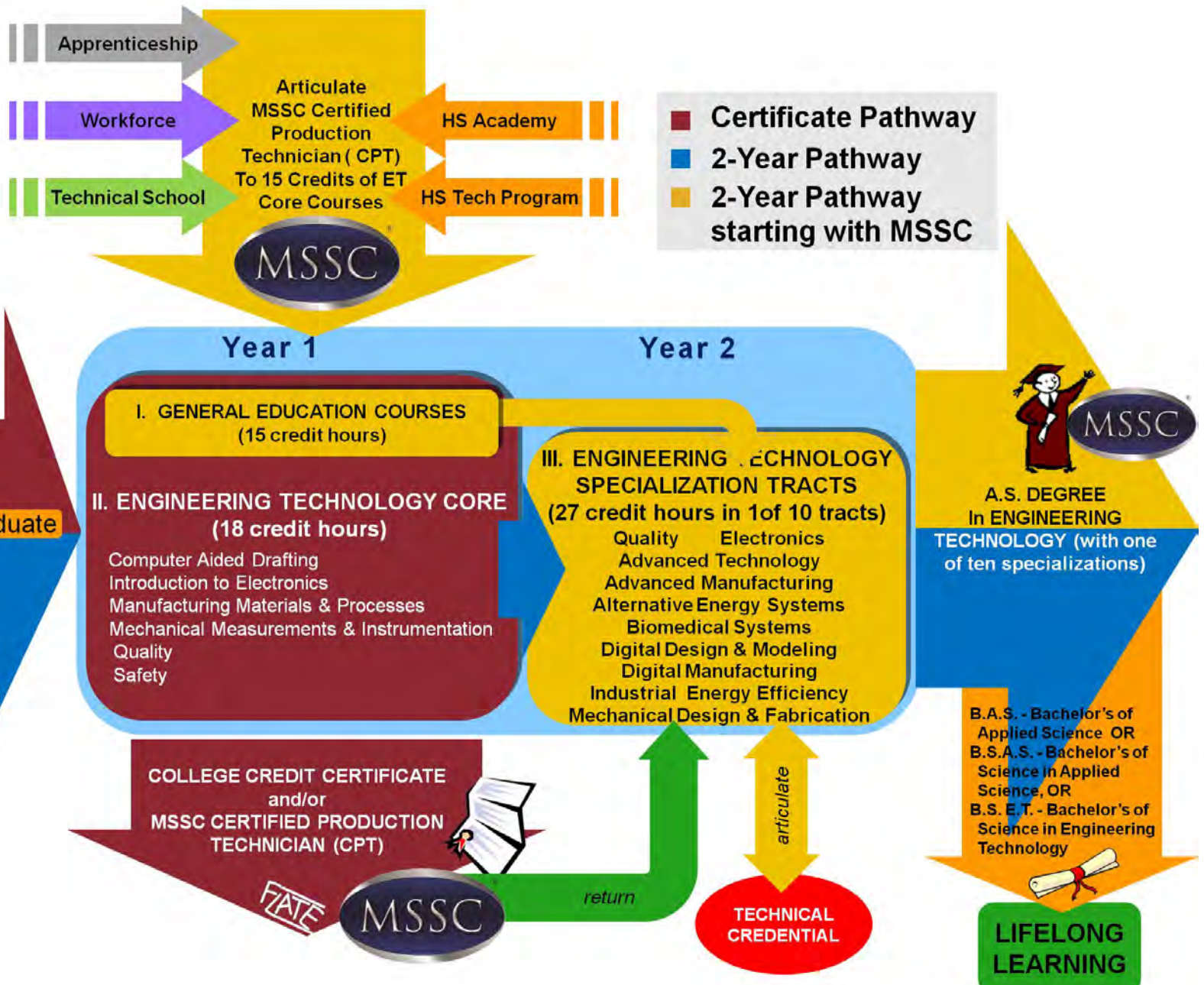
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# E.T. Degree Pathways



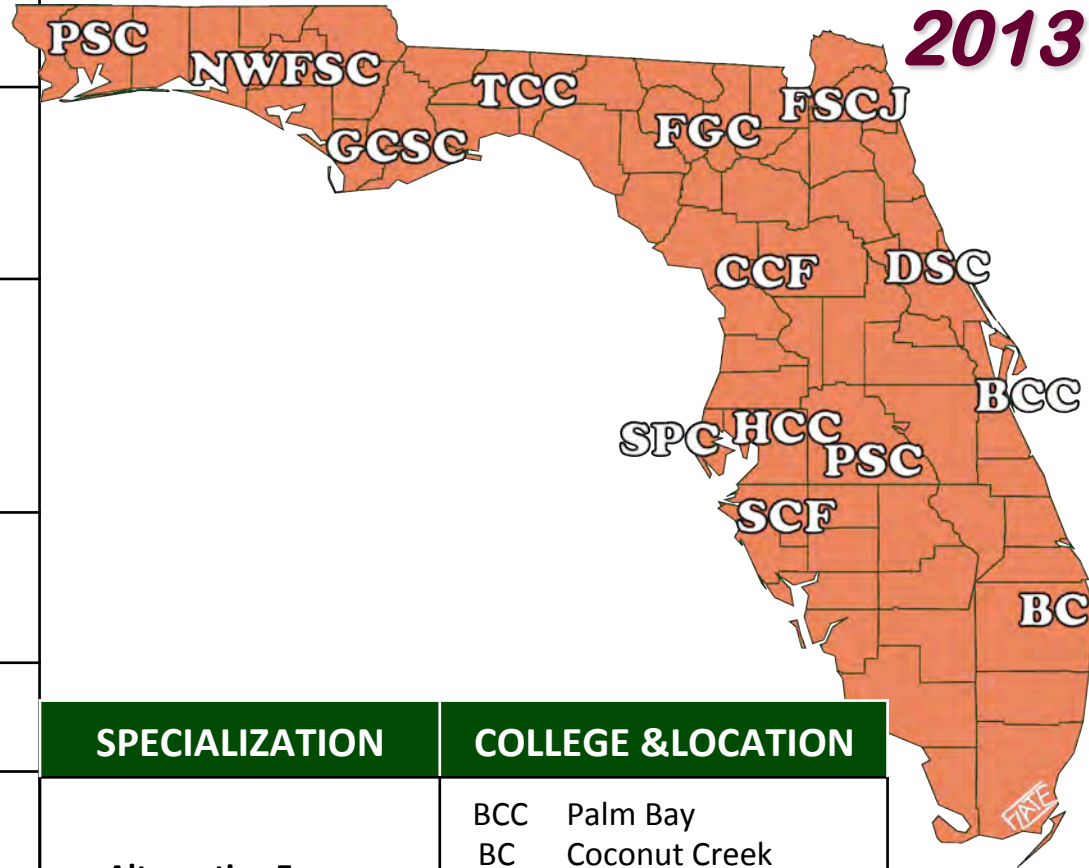
## Engineering Technology Education

At a Community College near you!

Good jobs, great pay, bright future



# E.T. Degree College Network 2013



SPECIALIZATION	COLLEGES & LOCATION
Quality	CCF Ocala FGC Lake City SPC St. Pete TCC Tallahassee
Electronics	BCC Palm Bay BC Coconut Creek SCF Venice SPC St. Pete
Advanced Manufacturing	FGC Lake City FSC Jacksonville HCC Tampa PSC Lakeland TCC Tallahassee
Mechanical Fabrication & Design	FSCJ Jacksonville PSC Pensacola TCC Tallahassee
Advanced Technology	BCC Palm Bay TCC Tallahassee
Biomedical Systems	BC Coconut Creek SPC St. Pete
Digital Design & Modeling	CCF Ocala SCF Venice SPC St. Pete TCC Tallahassee
Digital Manufacturing	GCSC Panama City

SPECIALIZATION	COLLEGE & LOCATION
Alternative Energy Systems	BCC Palm Bay BC Coconut Creek GCSC Panama City SCF Venice TCC Tallahassee
Industrial Energy Efficiency	FSCJ Jacksonville

# E.T. Degree Outcomes Alignment

looking for more ET Core students to take  
MSSC for aligned courses in  
Spring 2013

Perkins Technical Education  
Skill Attainment Inventory  
1/3/2010

provides coherent and rigorous content aligned with industry standards and relevant technical knowledge and skills needed to succeed in the manufacturing career cluster; provides technical content that is competency-based applied learning that contributes to the attainment of career-ready skills; and occupation-specific skills, and knowledge of all aspects of the manufacturing career cluster.

content includes but is not limited to communication skills, leadership skills, human relations and employability skills, technical competency, safe and efficient work practices and a combination of theory and laboratory activities to gain the necessary cognitive and manipulative skills to perform preventive and corrective maintenance and support for engineering design, processes, production, testing, and/or maintaining product quality.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the Engineering Technology and Industrial Applications: production materials and processes, quality, computer-aided drafting, electronics, mechanics, instrumentation and safety.

Program Structure

BREVARD COMMUNITY COLLEGE  
AEROSPACE TECHNOLOGY PROGRAM  
Spring 2009

COURSE: ETIC 1830 MATERIALS AND PROCESSES I  
PREREQUISITES: Introduction to Aerospace Workplace

CLASS TIME: Wednesdays 8:00- 10:45am  
CLASSROOM: Cocoa Campus Bldg 14 Room 192  
INSTRUCTOR: William Fletcher

CONTACT DATA:  
321-7751 (College) 321-543-3898 (Cell)

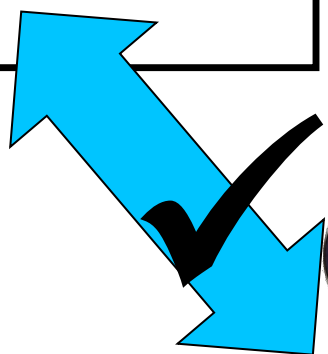
7. Identify a good and a bad material.  
8. Identify a good and a bad material.

GRADING PROCEDURE:  
The course grade will be a combination of the following components:

Attendance/class participation	10%
Homework	10%
Quizzes	15%
Individual Presentations	20%
Midterm	20%
Comprehensive Final (Exam)	25%
	100%

Florida Frameworks

es: course  
ooks



# *Partner Projects*

EST<sup>2</sup> ATE Project

FESC - Florida Energy Systems Consortium

Iberian Partnership for Technicians

HiTEC conference

USF PathTech Career Pathway research

TCC ET Degree ATE project

SCME MEMs center (USF, USF NREC, FLATE)

ATE Manufacturing Centers projects

BEST Robotics of Tampa Bay

BAMA, SAMA, SRMA, VMA – STEM activities

SPC Florida TRADE DOL

MACNY NY Manufacturing

National STEM

FVCC DFCL project



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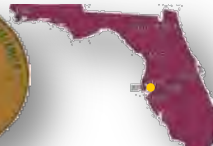
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[www.madeinflorida.org](http://www.madeinflorida.org)

# Professional Development

When	What & Where
May 8-10	MEMS Pressure Sensor Workshop @ USF Tampa (NREC,
MAY 14-15	Summer with Siemens, 3-Day PLC workshop @SCF, Venice
May 14-16	FPGA workshop (2 2-day) @ USF Tampa
May 16	FLATE IAC Mtg, Draper Labs, St. Petersburg
May 30	STEM Education Forum @ Sterling Conference, Orlando
June 21	Recruiting Girls to STEM Careers @ HCC Brandon
July 21-24	Hi TEC Conference, Austin, TX
July 29	MSSC pre-FACTE Workshop, Ponte Verde, FL
Aug 5-9 ??	STEM Guitar Building Workshop

[www.trainingtechnicians.org](http://www.trainingtechnicians.org)



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# Professional Development

Pressure Sensor Workshop  
FLATE, SCME & USF COE

MAY 8-10, 2013  
@ USF, Tampa



**HI-TEC**

Austin, Texas  
July 21-24, 2013  
Austin Renaissance

High Impact  
Technology  
Exchange  
Conference

Hi-TEC is a national conference on advanced technological education where secondary and postsecondary educators, counselors, industry professionals, trade organizations, and technicians can update their knowledge and skills. Charged with Educating America's Technical Workforce, the event focuses on the preparation needed by the existing and future workforce for companies in the high-tech sectors that drive our nation's economy.

Educating America's Technical Workforce



[www.highimpact-tec.org](http://www.highimpact-tec.org)



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# ***FLATE Friday ET Workshop***

**ET JOBS** – companies, titles, SOC codes

**ET GRADS** – where are they? what are they doing?

## **FRAMEWORK ACTIVITIES**

- MSSC testing for validation of alignment to framework
- ET Degree Framework review in 2013 - specializations
- New specializations or certificates?

**PROFESSIONAL DEVELOPMENT suggestions?**