

Partner Spotlight—Plasma-Therm Shines Light on World (from 83degreesmedia.com)

Plasma-Therm was recently featured in the publication “83 Degrees,” with the title **Tampa Bay Manufacturing: Plasma-Therm Shines Light On World** (written by Rex Henderson). Howard Johnson was especially impressed with the article and got the permission of Diane Egner, Publisher & Managing Editor of 83degrees, and Abdul Lateef, Chief Executive Officer of Plasma-Therm, to share an excerpt from the article with the readers of **Manufacturing Connections**. Abdul is on the advisory council for the Banner Center for Advanced Manufacturing.



The supply chain for cutting-edge semiconductors used around the world begins in the Tampa Bay region at Plasma-Therm LLP, just off Gandy Boulevard and I-275 in a warehouse and industrial district.

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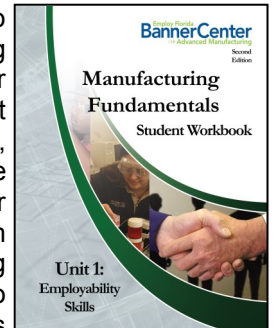
Manufacturers Connecting with Schools—Helping Schools & Helping Manufacturing

Manufacturers can help high schools and career academies get training materials and, in the process, help manufacturing too. One complaint that has come up time and time again from high school instructors taking the Banner Center’s Instructor Certification Course (ICC) is that they cannot buy our training materials. Often the schools cannot afford to buy the Student Workbooks, especially with recent budget cuts, or the approval and purchasing process takes so long that they cannot purchase materials within a reasonable time period.

Recently, an instructor who completed our ICC training indicated that he liked the Banner Center’s training curriculum, but that it would be difficult, if not impossible, to get books for his students. The instructor challenged the Banner Center to see if we could help him find manufacturers or manufacturing associations that might be willing to step up to the plate and help his school purchase the Banner Center’s **Manufacturing Fundamentals** curriculum for his students. After all, he wants to train his students to become valuable future workers for the manufacturing industry.

After a couple phone calls and e-mails to two of our Advisory Council members, solutions began to appear. Within a couple of days, participation in this project began to snowball and others got involved as well. As a result of this instructor’s challenge and request for help, the Banner Center is making a renewed effort to connect with schools,

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Don’t Miss the Discussion Forums on Talent Development—May 19th & June 15th

The Banner Center, NAM MI (National Association of Manufacturers Manufacturing Institute) and MAF (Manufacturers Association of Florida) are teaming up to conduct three state-wide discussion forums on talent development. Educating and Certifying a Manufacturing Workforce, Forum #1 is scheduled at Daytona State College on May 19th. Says Nancy Stephens, “It is very, very important that we have a good

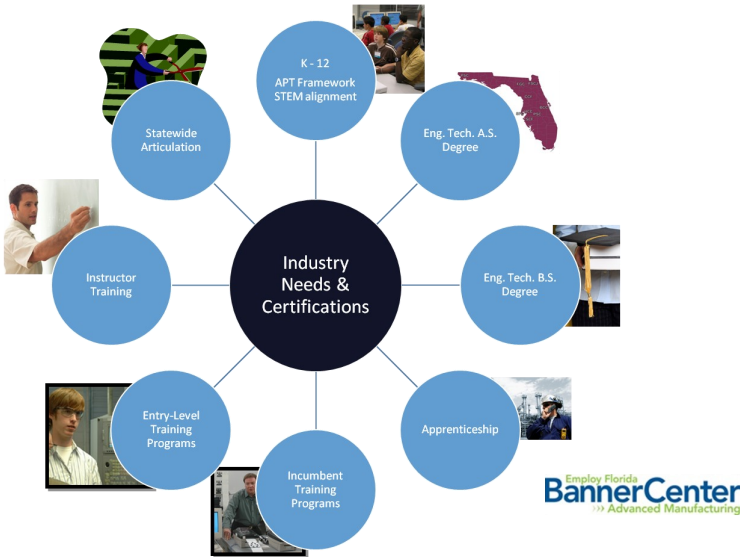


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From The Director:



Over the past few years, we have been diligently working to build a unified system of education and training for advanced manufacturing in Florida to create the workforce needed by Florida manufacturers. This system links education and training via industry certifications. In this model, competencies in both the educational and the training programs are aligned with industry certifications, allowing for competency-based completion points that can be validated and directly cross-correlated. This creates a pathway into higher education for incumbent and displaced workers, providing them with increased opportunities for career progression. To accomplish these reforms, we leveraged State and Federal funding [the Banner Center for Advanced Manufacturing (Workforce Florida & private sector – funded) and the FLATE Center (NSF ATE – funded)] to gather industry needs, identify industry certifications, and then create or reform the programs that link them. This has resulted in new



programs for high school career academies, technical centers, community & state colleges, registered apprenticeship, and short-term training. Now we are ready to move on to the next level; in this newsletter you will see that the Center has partnered with the Manufactures Association of Florida, and NAM's Manufacturing Institute to conduct three statewide talent development forums this year. Please try to make one of these forums – the results from your input will help us chart the way to leverage the system we have created to align with best practices from other states implementing the NAM Skills Certification System to ensure that Florida has the skilled workforce, from technician to management, to retain and expand our diverse manufacturing sector.

Please enjoy this issue of the Manufacturing Connections with articles about advisory council member Abdul Lateef & Plasma-Therm, the very important Florida STEM plan, the updated Manufacturing Fundamentals curricula, and our new curricula for Supply Chain Management. To get important up-to-the-minute updates on advanced manufacturing, talent development, and STEM – connect with us on LinkedIn, Facebook & Twitter (follow the links on page 4).

I also wanted to take part of this issue to publicly thank the industry, workforce & economic development, and education professionals that serve on the Center's Advisory Council. You can

see their company names on the last page of this issue and their names on our website. Led by the Council chair, Art Hoelke of Knight's Armaments, these individuals provide guidance and support for the Center and have truly embraced our initiatives to build the best advanced manufacturing workforce in the nation. To our dedicated Council members, thank you for your time, talent, and support – Dr. Roe

Florida Chamber Foundation Announces Release of FloridaSTEM Strategic Plan

The following article is a press release from Florida Chamber Foundation. STEM is not just a passing fad. Manufacturing is all about STEM. Indeed, manufacturing is STEM. The Center has been engaged with and fully supports the work of STEMFlorida, FCR-STEM, and the Florida Chamber Foundation

TALLAHASSEE, FL (May 12, 2011) – The Florida Center for Research in Science, Technology, Engineering, and Mathematics (FCR-STEM) released the Florida STEM Strategic Plan earlier this month. The plan is a timely contribution to the Florida Chamber Foundation's Talent Supply and Education Caucus deliberations, which earlier in the year identified innovation in the areas of STEM education as its highest strategic priority. The FCR-STEM plan provides Florida a coordinated, informed and strategic path to be competitive in the global economy.

STEM is an acronym for the fields of study of Science, Technology, Engineering and Mathematics. Students in Florida currently perform below students in many other states and nations on science and mathematics assessments. Florida also trails other states and nations in the initiative to align STEM education and workforce needs, adopt globally competitive standards for all STEM fields, and create a fertile environment for innovation.

"The release of this Plan comes at a critical time in the State's economic transition," said Dale A. Brill, Ph.D., president of the Florida Chamber Foundation. "I look forward to the impact of this contribution to the Caucus process in pursuit of a more globally competitive position."



The STEM Strategic Task Force that developed this plan consisted of more than 70 members of the business, industry, education, workforce and economic development, policy and philanthropic communities. The task force identified three strategic goals that include measurable objectives and action items contained in the plan. The identified goals are: 1) Increase the percentage of students successful at each level to ensure our diverse population is: a) Capable of conducting real-world STEM projects and inquiry; b) Capable of authentic and collaborative problem solving; c) Proficient in applying multidisciplinary knowledge and skills through STEM; d) Proficient in English and other languages in order to succeed on a global scale; and e) Knowledgeable about and interested in STEM careers. 2) Increase the quality and quantity of STEM educators. 3) Create a statewide sustainable STEM leadership organization to align existing and emerging STEM initiatives and represent Florida as one voice in meeting STEM demands.

"We now have a valuable contribution to inform discussions occurring across all four fields of STEM as a major component of school reform," said Brill. "With the support of educators, business partners and our community leaders, Florida will be positioned to grow and prosper for years to come." The plan can be viewed in its entirety at:

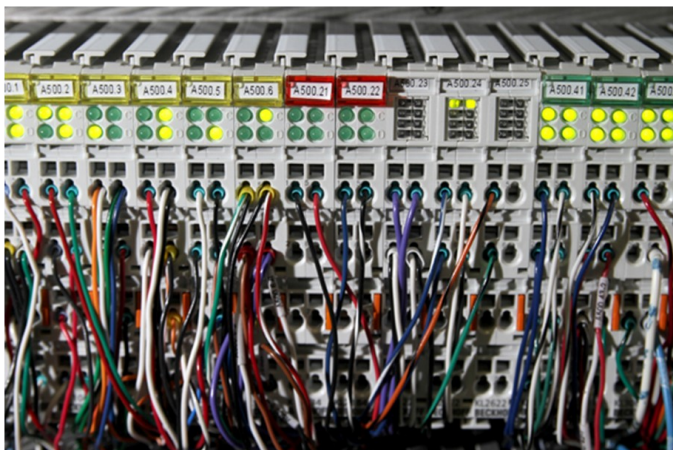
www.lsi.fsu.edu/centers/fcrstem/resources/documents/floridaSTEM_strategic_plan_2011.pdf.

Partner Spotlight—Plasma-Therm Shines Light on World (from 83degreesmedia.com)

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Plasma-Therm manufactures equipment for the production of electronic chips for current and futuristic applications. A growing bright spot of high-value-added industry serving global markets, Plasma-Therm increasingly attracts technical and engineering talent to Tampa Bay even in today's rocky economy. About 75 percent of Plasma-Therm employees are college-educated and about 25 percent have post-graduate degrees, typically in materials or electrical engineering.

A big portion of that growing labor force is locally educated and coming from the communities around the region.



Employees and visitors don head-to-toe clean suits to enter the dust-free room where Plasma-Therm assembles its products in a batch production process. Each machine in the process is made to order by a crew of technicians who build it up from a standard frame to a finished product. The machines use either precise etching or material deposition techniques to create circuitry on wafers of silicon and germanium, which become the guts of integrated circuits.

The circuitry is measured in increments thousands of times too small to see with the naked eye. Plasma-Therm technicians measure tolerances in nanometers (one-billionth of a meter), or in angstroms, which are one-tenth of a nanometer. The slightest bit of contamination in equipment so finely calibrated is unacceptable. Hence the clean room environment, which contains about one one-thousandth as many dust particles as a typical living room. The testing room is another 10 times cleaner.

[\(To read the full article at 83degrees, click here\)](#)

Discussion Forums on Talent Development—May 19th & June 15th

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participation from manufacturers in this event. We are working to continue to identify the gaps between the skills you need in your business and the curricula being offered in the education and training systems to meet those needs.” You can help chart the course for additional education and training courses that benefit you.

The second forum, Educating and Certifying a Manufacturing Workforce, Forum #2, will be held on June 15th in Sarasota. It will be a discussion with educators and trainers from throughout the state. We will look at the information gathered from the manufacturers in the May 19 discussion forum and discuss what is being offered today and where the gaps are.

Then on November 30th, Forum #3 will be held at the MAF Annual Summit in Orlando. At the Summit, everyone will come together to tie all the discussions together and create a Florida manufacturing talent development action plan. The forums are being facilitated by Don Upton, Fairfield Index, Inc. Thanks to the Lumina Foundation, the Manufacturing Institute, Mileo & Associates, the University of Phoenix, Workforce Florida, Volusia Manufacturers Association, APICS Mid-Florida Chapter, and Daytona State College for sponsoring the May event. Register online at www.mafmfg.com.

New Supply Chain Management Curriculum Developed

The Banner Center for Advanced Manufacturing and Banner Center for Global Logistics teamed up to develop a brand new training course for **Supply Chain Management**. Work was recently completed and should be available for order through our printing service, Lulu, in the new few days. This is a 140-contact hour course for entry-level, incumbent and/or displaced logistics worker. The 7-unit training consists of the following: 1) Workplace Essentials; 2) Supply Chain Management Overview; 3) Transportation Management; 4) Warehouse Management; 5) Computer Systems; 6) Safety Awareness; and 7) Quality Assurance. Three of the units were adapted from the successful Banner **Manufacturing Essentials** curriculum.

This course will prepare participants to take and pass the GLA (American Society of Transportation & Logistics' Global Logistics Associate) and/or the MSSC CLA/CLT (Manufacturing Skill Standards Council Certified Logistics Associate/Certified Logistics Technician) exams to earn the corresponding credential.

Manufacturing Connections

Manufacturing Fundamentals Curriculum Update

The update/revision of the **Manufacturing Fundamentals** curriculum was completed this past March. It now more accurately aligns with the MSSC (Manufacturing Skill Standards Council) CPT (Certified Production Technician) credential and the OSHA-10 standards. We also utilized feedback from training partners and updated material from the revised **Manufacturing Essentials** curriculum.

The course is a 120-contact hour, 5-unit program for the entry-level production worker or career academy student. It is designed not only to align with the MSSC CPT Certification, but to provide the fundamental skills and knowledge needed for Florida's diverse manufacturing sector. The training prepares the participants to take and pass the MSSC CPT exams.

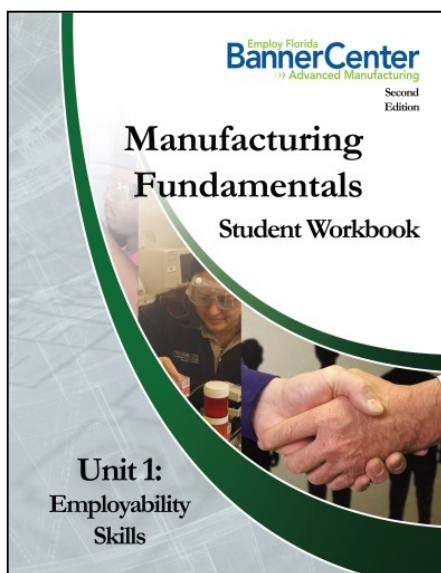
The units included in this curriculum include topics that all manufacturing employees need to be familiar with such as:

Employability Skills; Safety Awareness; Production & Processes; Maintenance Awareness; and Quality Assurance.

When we developed the Banner Center's curriculum, we utilized input from industry focus group meetings and Advisory Council

members and included the Employability Skills unit, even though it is not specifically a topic included in the MSSC exams. Manufacturers overwhelmingly insisted that these topics be included so that entry-level employees would have the well-rounded skills that were needed. These specific modules include Human Behavior; Ethics; Communication Skills; Stress management; Team Building; and Craft Math.

See the instructions on Page 6 to place an order for **Manufacturing Fundamentals** or other Banner Center materials.



Manufacturers Connecting with Schools—Helping Schools & Helping Manufacturing

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and to get as many partners on board as possible to assist schools, academies, and college programs in acquiring Banner Center curriculum. This is a win-win situation for all of us in the manufacturing industry. The schools will have access to the best training materials available, manufacturers will have better job candidates, the manufacturing associations will be stronger, and the Banner Center will be supported (our only revenue comes from sales of our training curricula and these sales are critical to our sustainability).

If you are not aware (please read more about the **Manufacturing Fundamentals** curriculum across the page), the Banner Center's training materials align with and support the MSSC CPT (Certified Production Technician) credential. The CPT has been endorsed by NAM (National Association of Manufacturers) and MAF (Manufacturers Association of Florida). We feel that the Banner Center's curriculum is the finest available for preparing students and workers to take and pass the CPT exams. Indeed, developing training curricula for the manufacturing industry is one of our main charges from Workforce Florida, Inc., and a big part of why the Banner Center exists.



LinkedIn

**Become a fan
and join the
conversation.**

One of our goals at the Employ Florida Banner Center for Advanced Manufacturing is to bring industry, education, and workforce & economic development together to build the talent necessary to grow and sustain Manufacturing.

The more voices we have in the conversation will serve to better inform lessons from the past and chart the course to the future.

[Facebook.com/Banner-Center-for-Manufacturing](https://www.facebook.com/Banner-Center-for-Manufacturing)

[Twitter.com/BannerCenterMfg](https://twitter.com/BannerCenterMfg)

[Linkedin.com/groups/Banner-Center-Advanced-Manufacturing-3802452](https://www.linkedin.com/groups/Banner-Center-Advanced-Manufacturing-3802452)

“Making Manufacturing’s Workforce Stronger”

Workforce Development –Banner Centers Article in Florida Trend Magazine

Workforce Development: A Team Sport in Florida-Workforce Florida Banner Centers (from the May 2011 Florida Trend Magazine).

Florida’s most successful team isn’t playing on a field or in an arena. It’s a team made up of industry, workforce, education and economic development leaders that is playing to win in the workplace. Its goal is superior talent development, and its training regimen involves 13 Employ Florida Banner Centers.

Led by Workforce Florida Inc., Florida’s 13 Employ Florida Banner Centers provide programs to address the needs of targeted industries and to ensure that skills training meets industry standards. Collectively, the Centers offer educational and training resources to boost Florida’s global competitiveness and build the highly skilled labor pool necessary to support it.

Each Banner Center is based at a Florida university, state college or industry organization and guided by an Advisory Council of business leaders and educators representing an industry critical to growing Florida’s economy. Proximity to a Banner Center is not a prerequisite for accessing its industry-targeted programs. Because each Banner Center designs its curricula to be portable, training can be implemented throughout Florida.

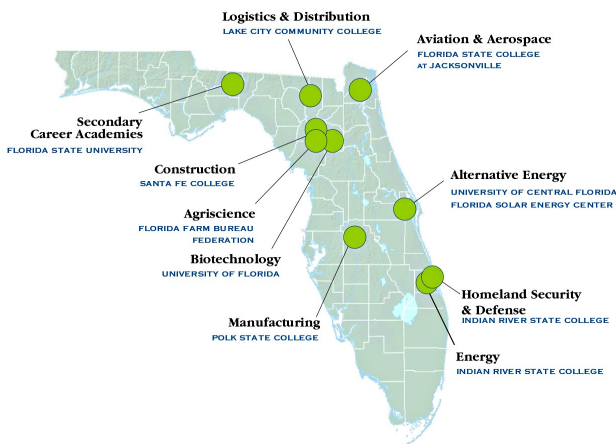
The Employ Florida Banner Center for Secondary Career Academies has the broader mission of providing technical support to school districts desiring to initiate or modify career academies on the secondary level and to develop standards and accountability measures for career education programs.

Many employers have found solutions to their workforce training needs at an Employ Florida Banner Center. Sun Hydraulics Corporation and Advanced Supply Chain Solutions are just two of them.

Global Logistics Center Helps Jacksonville Firm Tap Brazilian Markets

A logistics and supply chain management technology integration company, Jacksonville-based Advanced Supply Chain Solutions tapped resources of the Employ Florida Banner Center for Global Logistics and the University of North Florida (UNF). The goal was to learn more about getting goods into and out of Brazil, one of Florida’s top trading partners and a po-

Employ Florida BannerCenters



tential growth market for Jacksonville.

“Some of our current customers do business in Brazil,” says ASCS supply chain consultant Jeff Messick, “and we wanted to be prepared to extend products and services in this region.” Working through UNF’s Division of Continuing education, ASCS helped develop and present a curriculum for the university’s Supply Chain Management and Logistics Technology Certification program to help Florida companies create individual business plans for Brazil with emphasis on understanding cultural differences, meeting customs requirements and promoting products and services more effectively in a new, international market.

Advanced Manufacturing Training Allows Sarasota Firm to Retain Employees

“We see our employees as intellectual assets, and we set money aside to invest in those assets,” says Sun Hydraulics’ Corporate Representative Kirsten Regal. “When we go into economic downturns, we don’t lay off employees, we retain and re-train them and, as a result, we become stronger, more efficient and more globally competitive.”

A business slow-down in early 2009 prompted the Sarasota firm, which designs and manufactures high performance components for fluid power systems, to work with the **Employ Florida Banner Center for Advanced Manufacturing** and Polk State College on development of a curriculum to improve workers’ employability and applied manufacturing skills. A total of 189 Sun Hydraulics employees earned the Florida Ready to Work certification, and 109 earned the Manufacturing Skill Standards Council Certified Production Technician (CPT) credential and college credits; some are now applying those credits toward degrees in manufacturing operations at State College of Florida, Manatee-Sarasota.

New Banner Center Materials Available for Order:

Manufacturing Fundamentals - This newly revised curriculum is a 120-contact hour, 5-unit program for the entry-level production worker or career academy student. It is aligned with the Manufacturing Skill Standards Council (MSSC) Certified Production Technician (CPT) Certification to provide the fundamental skills and knowledge for Florida's diverse manufacturing sector. The training prepares the participants to take and pass the MSSC CPT exams.

Supply Chain Management (SCM) - This brand new curriculum is a 140-contact hour, 7 unit program for entry-level, incumbent or displaced logistics workers. The course is aligned with the MSSC CLA/CLT (Certified Logistics Associate/Certified Logistics Technician) and the AST&L (American Society for Transportation & Logistics) GLA (Global Logistics Associate) certifications. This course was jointly developed with the Banner Center for Global Logistics. AST&L has endorsed it and plans to market it as well.

Instructor Certification Course (ICC) - This course covers the knowledge and skills required to become a certified instructor for the Employ Florida Banner Center for Manufacturing's curriculum and to earn the MSSC CPT Certification. This is a 2-day training course designed for high school faculty, career academy instructors, and corporate trainers. Upon completion of the training, participants will receive a hard copy of all five **Manufacturing Essentials** or **Manufacturing Fundamentals** Instructional Guides (whichever is appropriate) and PowerPoint instructional slides, along with self-study assignments and examinations.

For Prices & To Order Materials, contact:

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863.297.1010, ext. 4079

Toni Lauters, Program Assistant/EFM Coordinator
tlauters@polk.edu

Important Dates for your Calendar:

- **May 19** - MAF/Banner/NAM Talent Development 1st Discussion Forum (Manufacturers) @ Daytona S.C.
- **May 23** - Banner Center for Advanced Manufacturing Advisory Council meeting (teleconference)
- **May 31-June 3** - [Sterling Conference](#) in Orlando (May 31-Education Day; Healthcare Day; June 1-Service Sector Day; June 2-Leadership Day; June 3-Business Sector Day)
- **June 13-Aug 22** - [TBL](#) (Technology-based Learning) Manufacturing Essentials course for the MSSC CPT
- **June 15** -MAF/Banner/NAM Talent Development 2nd Discussion Forum (Educators) @ SCF (Sarasota)
- **September 29-30** - Forum on Engineering Technology @ Florida Gateway College (Lake City)
- **November 30-December 1** - [MAF](#) Annual Summit and Trade Show (Orlando)

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Visit the Employ Florida Banner Center for Manufacturing at:

Founding Partners:

Hillsborough Community College • Bay Area Manufacturers Association • Tampa Bay Workforce Alliance • Florida State College at Jacksonville • First Coast Manufacturers Association • WorkSource • State College of Florida • Sarasota-Manatee Area Manufacturers Association • Suncoast Workforce Board • Pasco-Hernando Community College • Hernando County Economic Development Council • Pasco-Hernando Jobs & Educ. Regional Partnership Board • Polk State College • Polk Manufacturing Association • Polk Works • Workforce Florida, Inc.

Advisory Council:

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