

FL-ATE FOCUS

FLORIDA ADVANCED TECHNOLOGICAL EDUCATION CENTER
A National Science Foundation Regional Center of Excellence in Manufacturing Education.

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THE SPOTLIGHT

The Manufacturing Association of Florida presented its 2006 “Summit Award” to Dr. Eric Roe for his contributions towards MAF’s goals.

The award recognizes his leadership, commitment, and vision for an educated, well trained, certified, manufacturing workforce in Florida.



Reaching out to generation “NEXT”

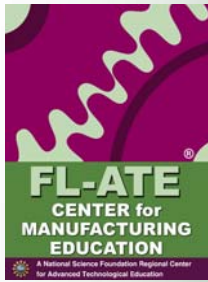
Gone are the days when manufacturing was perceived as just another factory job requiring hard hats and muscles to wrestle with metal and steel. Advances in technology and automation are slowly changing traditional perspectives and attracting attention from untraditional quarters.

Today manufacturing and manufacturing related careers are creating quite a stir and is being discussed and debated among politicians, economists and businessman alike. Manufacturing has always been, and continues to be a very important sector of the American economy. In today’s “Flat” world, being globally competitive has become a necessity for Florida’s manufacturers. One of the driving concerns in the face of this global competition is recruiting and retaining skilled workers in an continuously changing and increasingly complex technical work environment. It has roused the interest of those eager to keep factory jobs within our shores and evoked curiosity among others eager be part of an elite group of high-skilled workers of the future.

In keeping with the changing economic climate, FL-ATE partnered with the Manufacturers Association of Florida (MAF), Tropicana Products, Inc., and Hoerbiger Corporation of America to produce a 4-page advertorial on “Manufacturing” in the 2006-2007 edition of Florida Trend NEXT magazine. This publication of Florida Trend is produced annually and distributed free of charge to over 750,000 Florida high school students. Since distribution in October 2006, an overwhelming 3075 students have responded to the advertorial through reader response cards and e-mails, enquiring about degrees in manufacturing, other technical careers, as well as information about community colleges and technical schools. FL-ATE has responded to all of these students with information about Florida careers in manufacturing and educational pathways within Florida’s technical schools and community colleges. Additionally, FL-ATE also sorted the responses by county and has distributed them to department heads and/or faculty at partner schools so that they can reach students in their areas interested in manufacturing education.

You can get a copy of the 2006 advertorial and the accompanying Teacher’s guide with classroom lesson plans based on the advertorial, by contacting FL-ATE and/or view the article on the NEXT website, www.Floridanext.com. FL-ATE is now working with MAF to raise funds for the 2007 NEXT manufacturing advertorial. Manufacturers and other organizations are encouraged to help support this effort. Please contact Dr. Eric Roe, for more information (roe@fl-ate.org).





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FL-ATE FOCUS

Message from the Executive Director

Welcome to the first FL-ATE FOCUS newsletter.

Manufacturing is very exciting and extremely important sector of Florida's economy driven by our weather, location, tax structure and great transportation network by land, air and sea. In recent years we have seen growth in high technology-based manufacturing and technology companies throughout the state ranging from small start-ups to major bioscience technology research and development organization like Scripps Institute and SRI International.



A common thread of concern across this industry spectrum is the need for a workforce that has the skills dictated by modern manufacturing practices. The National Science Foundation (NSF) recognized the growth potential in advanced technological manufacturing in Florida by supporting one of its Advanced Technological Education (ATE) regional centers to help strengthen the educational component of Florida's manufacturing community. FL-ATE activities are driven by the three prong mission of the NSF's Advanced Technological Education program: 1) Curriculum reform and development; 2) recruitment of new students and outreach to the community to support manufacturing; and 3) professional development for teachers and faculty to support emerging techniques, equipment and technologies.

FL-ATE FOCUS will be published and distributed quarterly starting with this inaugural issue. You will find news and information about FL-ATE's outreach activities, lead by Dr. Eric Roe and I will regularly be reporting on the exciting statewide reforms we are heading up for community college curriculum. Additionally, you will get to meet and know FL-ATE's staff and many partners from industry, academic institutions, government and community organizations. We will introduce you to the Florida Forum for Engineering Technology, the Toothpick Factory, our partnership with the University of South Florida's new state Center of Excellence for Biomedical Identification and Targeted Therapeutics (BITT) and the Made in Florida outreach campaign, the FL-ATE Factor industry based curriculum, our mascot Flater, our Corporate Honor Role, our National Visiting Committee, and our external evaluator.

We hope to use this newsletter to communicate our exciting activities and projects as well as the latest news in Florida's manufacturing business sector. We encourage you to join us in any and all of our projects or activities.

Tell us about modern manufacturing in YOUR community !

Send us your own video and/or photos and description of a manufacturer in your town and we'll post it on the "Made in Florida" webpage. Our email address is outreach@flate.org

FL-ATE Events

- **February 1-2:**
NVC/IAC meeting
HCC—Brandon
- **February 1, 2007:**
Industry Advisory
Committee Meet-
ing
- **February 2, 2007:**
Sarasota Science
Fair
- **March 1-3, 2007:**
18th E.T. Forum at
Central Florida
Community Col-
lege.
[http://www.fl-ate.org/
partners/et_forum.htm](http://www.fl-ate.org/partners/et_forum.htm)
- **April 14-19, 2007:**
AACC Conference
in Tampa, FL
- **Monthlies:**
Check out high-
lights on latest in-
dustry related
news at:
<http://fl-ate.org/media/>
- FL-ATE mentioned
in December Issue
of NAM's blog.
[http://blog.nam.org/
archives/2006/12/
florida_manufac.php](http://blog.nam.org/archives/2006/12/florida_manufac.php)

FEEDBACK

Tell us what you think of FL-ATE FOCUS. Your opinions will help us better serve your needs. We can be reached at:



The FL-ATE Factor

Bringing the world of modern manufacturing into the classroom

Start with a 250,000 gallon tank of orange juice. Design a new 16 oz. container and label for a new consumer group. Start with an empty motor home coach. Use a CAD program to layout the interior of a new luxury coach. Start with the existing website of a guitar string manufacturer. Propose changes to the website to improve the marketing of their products.

These are examples of ordinary challenges faced by manufacturers in Florida today. These are also the same challenges students and teachers are being allowed to engage with thanks to The FL-ATE Factor, an initiative to bring the world of modern manufacturing into the classroom.

Given that knowledge and technology in today's manufacturing world changes at a speed faster than the time it takes to actualize school curricula and textbooks, FL-ATE is designing a collection of complementary teaching and learning resources to offer middle and high-school students and teachers the opportunity to engage with authentic, provocative and, sometimes, unresolved challenges faced by manufacturers today.

These teaching and learning resources include the following types of materials:

- Annotated classroom presentations
- Learning challenges
- Virtual or on-site tours to manufacturing plants
- The Made in Florida video, a behind-the scenes view of modern manufacturing
- Audio interviews with employees and employers
- An outreach website containing career information, links to other institutions offering manufacturing-related degrees, and much more.

For additional information contact Dr. Fernando Senior, Curriculum Coordinator at 813-259-6575 or at senior@fl-ate.org.

BECOME A FL-ATE OUTREACH AMBASSADOR

FL-ATE has been taking manufacturing from behind the chain link fence into the classroom and into central Florida's conscience over the past two years. As part of our expanding outreach plan, we are partnering with allies statewide to carry the message of the "Made in Florida" Campaign beyond our initial efforts through FL-ATE "Outreach Ambassadors"

These Ambassadors are asked to do the following:

- conduct one "Made in Florida" Industry Tour for middle or high school students per semester
- regularly attend Regional Manufacturers Association meetings
- promote FL-ATE & "Made in Florida" materials in local schools
- conduct one other outreach event in your community formatted to meet local needs.

If you are interested in becoming an Ambassador and would like further details concerning the areas still available, expenses covered and other details, please call or email:

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FL-ATE's Educational Tour Series



In an effort to raise interest in, and awareness of, modern manufacturing, FL-ATE, the National Science Foundation (NSF) funded Florida Center for Manufacturing Education in conjunction with its partners, the Florida High Tech Corridor Council (FHTCC), Sarasota Manatee Manufacturers Association (SAMA), Bay Area Manufacturers Association (BAMA), and Manufacturers Association of Central Florida (MACF) designed an outreach project to bring students into modern manufacturing facilities to observe high-tech operations and discover career opportunities. In this partnership, FL-ATE provides the curriculum and interacts with the schools, while the RMA's enroll manufacturers to be tour hosts, promote the events in their communities, work with local media for community coverage, and act as fiscal agents for the FHTCC grant funds.

The "Made in Florida Industry Tours" provide the student with much more than a day out of class. A lesson plan, designed by FL-ATE accompanies each tour to make the event a true learning experience. Additionally, student were directed to the "Made in Florida" website (www.madeinflorida.org) to do further career exploration, view the "Made in Florida" video and learn more about Florida manufacturing. Since it's inception in December of 2005 in Orlando, 1255 students and 112 teachers have learned firsthand what modern manufacturing looks like in Florida. Student feedback from the tour surveys indicates that that the tours have had a positive effect on the students' views of technical careers. Prior to the tour, 36% of the students had considered careers in manufacturing, after the tours that number rose to 51%. Additionally, after the tours, 71% of the students felt that they would be interested in engineering or professional level technical careers and 90% wanted to pursue a high-skill, high-wage career. The tours also seem to have impacted the students' views of math and science education. After the tours, 88% stated they understood the importance of mathematics and science at work and 83% felt that the tour helped them to understand the use of math, science, and technology in industry.

"Our tour of New England Manufacturing was an excellent example of the diversity of careers available in the Bradenton/Sarasota Area. It truly gave the students an opportunity to see the relevance of our curriculum and the skills and team work necessary to produce a product."Steve Harvey.

The most recent in this series, were conducted at New England Machinery (NEM) in Bradenton and at Promedica Inc. in Oldsmar, Florida. Students from Manatee School District's Lakewood Ranch High School were taken on a tour of the New England Machinery (NEM) plant in Bradenton while students from Richard Milburn Academy, a charter school in Pasco county, were taken on a tour of the Promedica Inc., facilities in Oldmar. Roughly 25 Drafting and Planning students from each of the schools participated in the tours. Steve Harvey, the Drafting and Design teacher at Lakewood Ranch High School summed up the event by saying, "Our tour of New England Manufacturing was an excellent example of the diversity of careers available in the Bradenton/Sarasota area. It truly gave the students an opportunity to see the relevance of our curriculum and the skills and team work necessary to produce a product."

DISCLAIMER

This material is based upon work supported by the National Science Foundation under Grant No. 0402215. "Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation."