



25 Years of Advanced Technology Expertise: Hovering on the Edge of Technology Commercialization

25th Anniversary Conference
October 9-11, 2013 • Panama City Beach, Florida



Hosted by:



Welcome to Gulf Coast State College



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Serving the Panhandle since 1957, Gulf Coast State College was the first public two-year institution to open in the state. Throughout its history, the college has been committed as a full partner in the cultural and economic development of our region. Located in Panama

City on Florida's Emerald Coast, Gulf Coast's mission to improve economic well-being through the delivery of life-changing learning opportunities now enters an accelerated era with the completion of the GCSC Advanced Technology Center.

Holding true to its boldness of vision, the college is thrilled you're here to join us as that vision becomes a reality, in the form of our ATC. The ATC is a "game changer," offering access, opportunity, and hope within a unique design driven from its inception by community and industry engagement. The ATC will impact economic growth by providing a broad range of learning opportunities and industry partnerships embedded within the cultural and economic development of our region. The ATC is the culmination of invaluable input from our community of stakeholders, including faculty, staff, students, and our many community partners across our service district, and you.

Members of the NCATC across the country have been influential in the planning of this facility and its services. Thanks to you, here, education, business, and industry will thrive. We are genuinely delighted to host the 25th Anniversary Conference of the NCATC, and to share with each of you our collaborative effort in the nation's newest Advanced Technology Center and proud member of the NCATC.

James Kerley, Ph.D.

President, Gulf Coast State College



Conference Schedule at a Glance

Tuesday, October 8 *(Events at Wyndham Bay Point)*

1:00 – 6:00 p.m. Registration

Wednesday, October 9 *(Events at Wyndham Bay Point)*

7:00 a.m. – 4:30 p.m. Registration

7:30 – 9:00 a.m. Breakfast and Keynote Speaker, Mark C. Perna, Founder, Tools for Schools

9:00 a.m. – 6:00 p.m. Exhibits Open (Dedicated Time: 9:00 – 11:00 a.m.)

11:15 a.m. – 12:15 p.m. Concurrent Sessions

12:30 – 1:30 p.m. Lunch and Keynote Speaker, Jane Oates, VP External Affairs, Apollo Group, Inc.

2:00 – 3:00 p.m. Concurrent Sessions

3:00 – 3:30 p.m. Refreshment Break in Exhibit Hall

3:30 – 4:30 p.m. Concurrent Sessions

5:00 – 6:00 p.m. Welcome Reception/Cash Bar

6:00 p.m. Sunset Cruise, Shopping at Pier Park, or On Your Own

Thursday, October 10 *(Events at Wyndham Bay Point and Industry Locations)*

7:30 a.m. – 12:00 p.m. Registration

7:45 a.m. – 6:00 p.m. Exhibits Open

7:45 – 9:15 a.m. Breakfast and NCATC Business Meeting

9:15 – 9:45 a.m. Dedicated Exhibit Time

9:45 – 10:45 a.m. Concurrent Sessions

10:45 – 11:00 p.m. Refreshment Break in Exhibit Hall

11:00 a.m. – 12:00 p.m. Concurrent Sessions

12:15 – 1:30 p.m. Lunch and Keynote Speaker, Dr. Al Koller, Executive Director, SpaceTEC Partners, Inc.

1:15 – 1:30 p.m. Load Buses for Industry Tours

4:30 p.m. Industry Tours Conclude

5:00 – 6:00 p.m. Cash Bar/Exhibits Open

6:00 – 7:30 p.m. Dinner and Keynote Speaker, Dr. Walter Bumphus, President and CEO, AACC

Friday, October 11 *(Events at Wyndham Bay Point and Gulf Coast State College)*

7:15 – 8:15 a.m. Breakfast

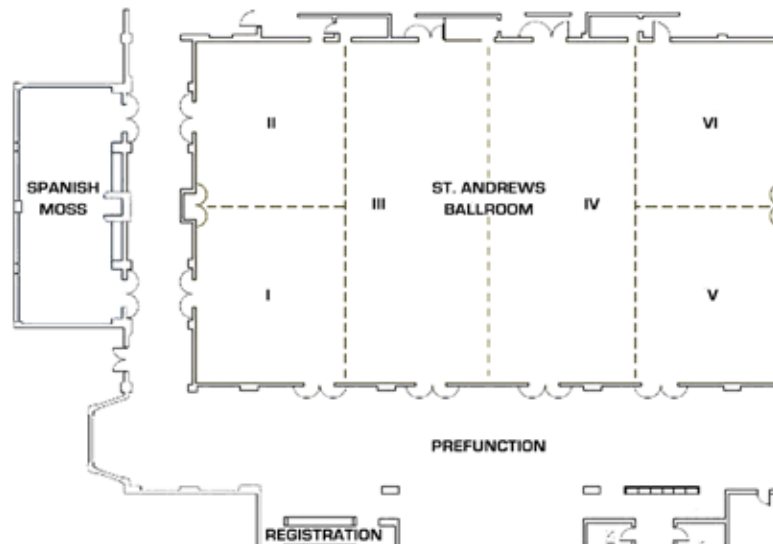
8:30 – 9:30 a.m. Load Buses and Transport to Gulf Coast State College

9:30 – 11:00 a.m. Grand Opening Ceremony: Gulf Coast State College Advanced Technology Center

11:00 a.m. – 12:30 p.m. ATC Tours

12:30 – 1:00 p.m. Box Lunch Provided; Depart for Hotel

Wyndham Bay Point Resort Meeting Rooms



Wednesday, October 9

7:30–9:00 a.m.
St. Andrews Ballroom III

Full Breakfast and Keynote Presentation:
Mark Perna, Founder and CEO, Tools for Schools
Enrollment, Retention, and the Millennial Generation



9:00 a.m.–6:00 p.m.
St. Andrews Ballroom IV

Strategic Partner Alliance Exhibits Open
Dedicated Exhibit Time: 9:00–11:00 a.m.

11:15 a.m.–12:15 p.m.
St. Andrews Ballroom I

Concurrent Sessions:
Industry-Led, Technical Certificate and Degree Options within Workforce Development – Implementing the Tiered and Stackable Credential Program
The purpose of this presentation is threefold: We will discuss the importance of developing tiered, stackable credentials in workforce development; describe the interaction necessary between the workforce development division and the industry occupational advisory committee leading to the development of employable, technically prepared students; and present Westmoreland County Community College’s effort at implementing the stackable credential model.
Presenters: *Douglas Jensen, Byron Kohut, and Frank Kordalski, Westmoreland County Community College*

St. Andrews Ballroom II

FABLAB’s—Bridging the ATC Landscape
NCATC member colleges find themselves supporting a broad economic and workforce development agenda. Programming includes everything from employability skills and boot camp programs to certification/credentialing and advanced technology applications. More and more, NCATC schools have the opportunity to impact the economic well-being of their regions. This panel will feature ways member colleges have leveraged FABLABs to support their communities. Topics will include career pathways/STEM activities, using the FABLAB to grow your ATC operations, bridging the tech transfer/commercialization issue, and supporting entrepreneurship and economic development.
Presenters: *Tom Crampton, Mott Community College; Jim Janisse, Fox Valley Technical College; Greg Herker, Gateway Technical College*

St. Andrews Ballroom V

Weld-Ed: Overview and Impact on Welding Technician Education
This presentation will introduce Weld-Ed: The National Center for Welding Education and Training as well as the impact the Center has made on secondary and postsecondary welding technician education. Key initiatives and partner colleges will be highlighted.
Presenters: *Michael Fox, Lorain County Community College; Craig McAtee, National Coalition of Advanced Technology Centers*

St. Andrews Ballroom VI

Summer Manufacturing Camps Really Work!
This program demonstrates how the Nuts, Bolts & Thingamajigs summer manufacturing camps help the hosting community and technical colleges to reach down to a student level where kids can be inspired to consider a career path in manufacturing while they are still young enough to take the right classes to succeed. It also demonstrates to area manufacturers that the colleges are taking their longer-term need to recruit qualified employees seriously.
Presenters: *Patricia Lee, Fabricators & Manufacturers Association Intl.; John Calver, Thomas Nelson Community College; Nick Graff, Anoka Technical College*

Wednesday, October 9

11:15 a.m.–12:15 p.m.

Spanish Moss

Concurrent Sessions (continued):

Integrating Online Curriculum for Advanced Manufacturing Programs

ToolingU-SME will present an interactive panel discussion featuring blended training solutions for dislocated, incumbent, and new worker training programs. Hear how several NCATC colleges have implemented blended solutions to provide flexible and consistent advanced manufacturing curriculum options throughout the country.

Presenter: *Toni Neary, ToolingU-SME*

12:30–1:30 p.m.

St. Andrews Ballroom III

Lunch and Keynote Presentation:

Jane Oates, Vice President for External Affairs, Apollo Group, Inc.



2:00–3:00 p.m.

St. Andrews Ballroom I

Concurrent Sessions:

Exemplary Career Pathways: The Florida Plan

For nearly 10 years, Florida's Department of Education has focused on developing and implementing innovative state policy defining robust, rigorous, and relevant workforce career pathways. FLATE, the Florida Advanced Technological Education Center of Excellence, has taken advantage of this statewide infrastructure to develop and implement flexible, robust pathways supporting Florida's manufacturing business sectors. This presentation will provide the background of the state's infrastructure and detailed pathway examples for manufacturing, transportation, and logistics.

Presenters: *Marilyn Barger and Richard Gilbert, FLATE; Jake Prokov, Hillsborough County Public Schools; Eric Owens, Florida Department of Education*

St. Andrews Ballroom II

Evolving the Mechatronics Training Programs at Volkswagen Academy

Learn how the VW Academy mechatronics program morphed from a three-year Tennessee Technology Center clock-hour based program into a three-year Associate of Applied Science degree. Why change a successful model? What prompted Volkswagen to want this change? How did we do it? All this, and much more!

Presenter: *Jim Barrott, Chattanooga State Community College*

Spanish Moss

Turning Scanned Points into Solid Model

Learn how to scan small, medium, or large objects into a highly detailed 3D Mesh model with ScanStudio HD, then export to RapidWorks and redesign the Mesh into a fully parametric Solid model. And, learn how to do a "liveTransfer" into SolidWorks to create a SLDPRT file ready for 3D Printing.

Presenter: *Brad Bryker, NextEngine*

St. Andrews Ballroom VI

Geothermal: The Not-So-New Alternative Energy

Technicians involved in heating and cooling will be more and more exposed to geothermal technology, due to its efficiency and growing availability. This seminar will address modern geothermal systems—how they work and how they can be successfully installed and maintained. HVAC and industrial maintenance programs will need to include this important technology into the foreseeable future.

Presenters: *Dave Dahline, Amatrol, Inc.; Rod Jaeger, Jaeger Corporation*

Wednesday, October 9

2:00–3:00 p.m.

St. Andrews Ballroom V

Concurrent Sessions (continued):

Expanding Industry Partnerships to Support Innovation and Academic Programs

Industry partnerships have long been of value to NCATC member colleges. Over time, these partnerships have evolved toward key strategies in equipping our spaces and programs. This session's panel will summarize core partnerships and the value they bring to their centers, as well as newer approaches to further leverage these relationships and their benefits. At Gulf Coast State College's new ATC, these partnerships have totaled \$1.3 million in support this year alone. Join us to share your experiences.

Presenter: *Steve Dunnivant, Gulf Coast State College; Andrew Levy, Harrison McCoy; Claudia Myrick, Panasonic; Mark Manuel, Bluegrass Community & Technical College; Keith Davis, Toyota - North American Maintenance Development Group*

3:00–3:30 p.m.

St. Andrews Ballroom IV

Refreshment Break in Exhibit Hall

3:30–4:30 p.m.

St. Andrews Ballroom I

Concurrent Sessions:

Future Training for Innovative Companies in 3D Virtual Simulation

Whether a company's training program involves maintenance, manufacturing a new product, or teaching new processes, 3D virtual simulation is now considered a necessity by a growing number of companies. 3D virtual simulation is learned faster, retained longer, and recalled better than the traditional training programs of the past. In addition, there are tremendous safety advantages in training with virtual objects and environments rather than with dangerous workplace machinery or impractical job-training conditions. Through interactive content, employees learn to eliminate potential mistakes or experience multiple outcomes which improves their decision-making skills. Innovative companies who integrate the 3D Virtual Simulation training now will discover the financial and operational benefits of these techniques in the not-too-distant future.

Presenters: *David McBride and Jack Roach, Southeastern Institute of Manufacturing and Technology*

St. Andrews Ballroom II

Envisioneering and the New Workforce

This session will initiate a discussion on how to develop, engage, and grow American innovation capacity. The discussion will focus on how to develop foundational innovation skills, or "Envisioneering" skills, fundamental technical skills, and technological literacy in the new workforce comprised of all types of experiences and expectations.

Presenter: *Jamie Justice, Kentucky Community and Technical College System*

St. Andrews Ballroom V

Additive Manufacturing: An Enabling Technology in Many Industry Sectors

Additive Manufacturing (AM) may be integrated as an enabling technology in the broad spectrum of manufacturing. This session will explore how AM can be used to accelerate manufacturing processes. Participants will be engaged in examining applications of this technology in their own lives and asked to participate in a future validation exercise of the Additive Manufacturing Core Competencies.

Presenters: *Frank Cox and Mel Cossette, The National Resource Center for Materials Technology Education and Project Technician Education in Additive Manufacturing, Edmonds Community College*

Wednesday, October 9

3:30–4:30 p.m.

St. Andrews Ballroom VI

Concurrent Sessions (continued):

Siemens Cooperates with Education—Incentives and Hands-on Technical Exercises for Instructors

This presentation will feature a brief overview of Siemens and the employee skills sought by industry, an introduction to the Siemens Cooperates with Education trainer packages—including discounts to educational partners and tuition-waived technical training for instructors, and tools available to schools for curriculum, course materials, and technical troubleshooting through our new self-service portal.

Presenters: *Amanda Beaton and Robert Carper, Siemens*

5:00–6:00 p.m.

St. Andrews Ballroom IV

Welcome Reception and Cash Bar

6:00 p.m.

Various Locations

- Shuttle to Pier Park Shopping and Entertainment,
- Sunset Cruise (*Advance Reservations Required*), or
- Evening on Your Own

Thursday, October 10

7:45–8:30 a.m.

St. Andrews Ballroom III/IV

Continental Breakfast in Exhibit Hall

7:45 a.m.–6:00 p.m.

St. Andrews Ballroom IV

Strategic Partner Alliance Exhibits Open

Dedicated Exhibit Time: 9:15–9:45 a.m.

8:30–9:15 a.m.

St. Andrews Ballroom III

NCATC Business Meeting and Elections

9:45–10:45 a.m.

St. Andrews Ballroom I

Concurrent Sessions:

Next Generation Aerospace Technologies—Hybrid Instruction Models

The innovative and high-speed nature of the aerospace industry has forced higher education to step up our instructional methods. This presentation will provide an overview of Northland Community and Technical College's approach to meet these needs on the topics of distance delivery, on-the-job training models, unmanned aerial systems maintenance training, avionics training, advanced composites training, FAA Airframe and Powerplant training, and performance based technical training.

Presenter: *Curtis Zoller, Northland Community and Technical College*

St. Andrews Ballroom II

The Peoples' Fab Lab for Under \$100,000

Northampton Community College's Fab Lab has been a small gem serving inventors, artists, students, children and just about anyone else for nearly six years. With a modest grant from a local entrepreneur, the college has invested less than \$100,000 in equipment and furniture for its Fab Lab but has helped spawn several \$1M+ companies and inspired hundreds of individuals to turn their dreams into reality. Hear how NCC made its Fab Lab successful on a shoestring.

Presenter: *Paul Pierpoint, Northampton Community College*

Thursday, October 10

9:45–10:45 a.m.

St. Andrews Ballroom V

Concurrent Sessions (continued):

US Department of Energy Smart Grid Curriculum Development Project

The Hawaii community college system received an ARRA grant to develop curriculum to support associate degree and noncredit workforce training programs for individuals working with Smart Grid technologies. This presentation will provide an overview of the new curriculum developed for Smart Grid technicians, challenges encountered in the development of the curriculum, successful outcomes, and implementation strategies.

Presenters: *Rosemary Sumajit, Pacific Center for Advanced Technology Training; Michael Moser, Windward Community College; William Labby, Leeward Community College*

Spanish Moss

Advancing the Manufacturing Workforce through Collaboration

Explore three NSF funded projects which address the need for highly skilled workers in the manufacturing workplace: the Virtual Ideation Platform (VIP), the Regional Advanced Machining Partnership (RAMP) and the Regional Center for Next Generation Manufacturing (RCNGM). These projects provide resources to educators and students interested in learning new technologies in manufacturing, programming, and metrology.

Presenters: *Diane Dostie and Devin Watson, Central Maine Community College; Karen Wosczyzna Birch, Regional Center for Next Gen Manufacturing*

St. Andrews Ballroom VI

From Planning to Practice: A Curriculum Framework for Emerging Technologies

This session will focus on building industry-driven curriculum with a proven model and tool. Used in the Wisconsin Technical College System, WIDS brings consistency to your curriculum project, ease of access to pending and active projects, and a seamless workflow process.

Presenter: *Karen Barr, Worldwide Instructional Design System (WIDS)*

10:45–11:00 a.m.

St. Andrews Ballroom IV

Refreshment Break in Exhibit Hall

11:00 a.m.–12:00 p.m.

St. Andrews Ballroom I

Concurrent Sessions:

One Size Doesn't Fit All: Co-op/Internship Programs

The Consortium for Alabama Regional Center for Automotive Manufacturing (CARCAM) will highlight successful co-op, internship, and apprenticeship programs that are benefiting both graduating students and advanced manufacturing industries. Today's advanced manufacturing requires technicians to possess skills in electronics, robotics, mechatronics, and electrical technology. CARCAM will share methods for colleges working together with industry to produce a skilled workforce.

Presenter: *Beverly Hilderbrand, CARCAM/Gadsden State Community College*

St. Andrews Ballroom II

Igniting Welding Education with STEM

In recent years, manufacturing in the U.S. has experienced a period of renaissance. Yet, a skills gap has been exposed in many areas of the industry. Lincoln Electric's awards programs can help incentivize both instructors and students to raise the bar, reducing the skills gap and increasing the abilities and skills of welding program students. This presentation will explore issues facing manufacturing, current trends in manufacturing, and the tools that Lincoln has to help address these trends. STEM is not new to education, but when applied to welding education, transformational change can occur that will have a meaningful impact on welding program graduates.

Presenter: *Jason Scales, Lincoln Electric*

Thursday, October 10

11:00 a.m.–12:00 p.m.
St. Andrews Ballroom V

Concurrent Sessions (continued):

Your NCATC Membership: Features, Value, and Benefits

NCATC offers colleges outstanding value for their institutional membership. Come learn more about the resources, programs, tools, and networking that are just a click away. You'll also learn about NCATC's Member Assistance Program (MAP) and grant evaluation services. Don't miss this chance to interact with NCATC staff and board members and find out what you may have been missing!

Presenters: Don Robison, St. Louis Community College; Will Johnson, Great Plains Technology Center; Jeff Arnold, Danville Community College; Holly Rolf, NCATC

St. Andrews Ballroom VI

Additive Manufacturing in the Education World

Additive Manufacturing (AM) encompasses many technologies including 3D Printing, Rapid Prototyping (RP), Direct Digital Manufacturing (DDM), layered manufacturing, and additive fabrication. This session will demonstrate how AM in educational environments plays a key role in student learning, helping students transform a CAD file into an actual formed part for a specific industry or market. We'll explore how AM helps students better understand the accurate representations required for form, fit, and function and how these areas are keystones to ensuring a part will work in the world of architecture, consumer goods, medical equipment, automotive, aerospace and defense, or any of a hundred markets today. Case studies from member colleges will be presented.

Presenter: Terry Cambron, Stratasys, Inc.

12:15–1:15 p.m.

Lunch and Keynote Presentation:

Dr. Al Koller, Executive Director, SpaceTEC Partners, Inc.

Partnering to Turn Promising Opportunities into Best Practices



1:15–5:00 p.m.

Industry Tours

Following lunch, the industry tour buses will depart from the main entrance of the Wyndham Bay Point. Buses will be marked with their industry tour destination. Please board the bus for the tour you selected in your conference registration. Each tour varies slightly in length. All buses will return to the Wyndham Bay Point by 5:00 p.m.

5:00–6:00 p.m.

St. Andrews Ballroom IV

Cash Bar and Exhibits Open

6:00–7:30 p.m.

St. Andrews Ballroom III

Dinner and Keynote Presentation:

Dr. Walter Bumphus

President and CEO, American Association of Community Colleges

21st Century Workforce and Economic Development:

At the Heart of Advanced Technology Centers



Friday, October 11

7:15–8:15 a.m.
St. Andrews Ballroom III

Full Breakfast

8:30–9:30 a.m.

Load Buses and Transport to Gulf Coast State College

9:30–11:00 a.m.

**Grand Opening Ceremony:
Gulf Coast State College Advanced Technology Center**

11:00 a.m.–12:30 p.m.

Advanced Technology Center Tours



12:30–1:00 p.m.

Box Lunches – Depart for Hotel



Special Thanks to the 2013 Fall Conference Planning Team at Gulf Coast State College:

Rhonda Barker
James Baxley
Melanie Boyd
Barbara Cline
Denise Crider
Loel Davenport
Steve Dunnivant
James Garcia

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John Mercer
Kyle Peck
Katrina Porter

Lt. Steve Sellers
Dennis Storck
Mark Swartz
David Thomasee
Chris Thomes
Ronney Watson
Eileen Wilkes

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Chess Set

Mott Community College
Etched Stemware

Thomas Nelson Community College
Chess Set

Stratasys
NCATC Logo 3-D Models

North Dakota State College of Science/Weld-Ed
Welded Metal Roses

Edmonds Community College/MatEd
Ceramic Skyline of Seattle

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