

FLATE News

Engineering Technology and Manufacturing Related Program Student Enrollment in Florida

FLATE annually requests and compiles student enrollment and completion data for Engineering Technology (ET) and related A.S., Bachelor of Science and Bachelor of Applied Science B.S. degrees and college credit certificate (CCC) programs for Florida colleges. For trends, comparisons, and benchmarking, FLATE collects the same data for related technology programs for secondary and postsecondary career certificate programs (CC).



Manufacturing education statewide enrollment for the A.S. E.T. degree continued to build in 2021-22 with

2,078 students registered in 23 Florida colleges representing a 5% (102) increase when compared to the previous academic year. Overall, there has been a favorable increase trend over the past 5 years.

Read full article

FLATE at the 2023 MakeMore Manufacturing Summit

The MakeMore Manufacturing Summit was held October 25-26 in Orlando. The annual thought-leadership event is designed to help strengthen Florida's manufacturing sector, including identifying and solving key issues. At the 2023 Summit, FLATE Executive Director, Ernie Friend, facilitated a panel on engineering technology education and presented the 2023 FLATE Most Innovative Manufacturing Student Event Award.



"The Implications of Industry 4.0 in Engineering Technology Education"



The Manufacturing Association of Central Florida (MACF) wins the FLATE 2023

Panel:

- Cecilia Larsson, Program Manager/Professor of Engineering Technology at Seminole State College
- Shirley Dobbins, Engineering Technology Assistant Professor, Hillsborough Community College
- Rod Jaeger, President & CEO, D.C. Jaeger Corporation and
- Jeff Kondel, Owner & Executive Director, Roots Education.

Most Innovative Manufacturing Month Student Event Award for their 2022 Made in Central Florida Expo.

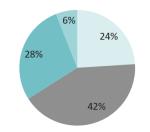
Donnie Casey, Executive Director of MACF, accepted the award at MakeMore. Congratulations! Thank you to the many MACF members who make this annual event happen and for continuing to promote manufacturing careers to students across Central Florida!

Read full article

FLATE at the 2023 ATE PI Conference Exploring How Community Colleges Engage in Regional Economic Development

Dr. Marilyn Barger, Senior Education Advisor at FLATE, along with other members of the Hidden Innovation Infrastructure (HII) NSF ATE research project, presented at the 2023 ATE PI Conference in Washington, D.C.

The project is exploring how community college technical programs -and their collegesinterface with economic development activities in their region. The project team has interviewed and surveyed many funded ATE projects and is developing in-depth case studies



Economic development is the same as workforce dev Chart Area }
Economic development is a particular approach to workforce development
Economic development and workforce development are different
Did not answer

at eight regional sites around the country. While the project team works to tease out the differences and similarities from all the qualitative data collected, one overarching question has been: What is the relationship between workforce development and economic development? Over 200 responses from current NSF ATE-funded projects provided this glimpse of current thinking. We'd love to know your thoughts! Please email: Marilyn.barger@flate.org with all your comments.

To learn more about the project

Promoting Manufacturing Careers Year-Round! Florida Manufacturing Month Activities Continue





8th Annual Ghouls for Tools Event a success!

FLATE was proud to participate in the 2023 Mastercut Tools/Shaluly Foundation annual 5K Run/Walk event on October 21 to raise money for Manufacturing Education! The event had over 400 participants and the costumes were positively ghoulish! For results and photos of the event, click **HERE**!

2023 Made in Central Florida Expo

The Manufacturers Association of Central Florida (MACF) held their 2nd annual **Made in Central Florida Expo** on October 24th at the Orlando Convention Center. Over 800 students, 100+ educators and 25+ manufacturers connected at the Expo. 137 high school and 35 middle school students participated in the Student Design & Build Competition.

Florida ET Program Updates

Florida ET Students Recognized at ATE-PI Conference in Washington D.C.



The American Association of Community Colleges (AACC), with the support of the <u>National Science</u> <u>Foundation</u> (NSF), hosted the 30th National ATE Principal Investigators' Conference on October 25-27, 2023, at the Omni Shoreham Hotel in Washington, D.C. The conference brought together more than 800 NSF ATE grantees and their project partners to focus on the critical issues related to advanced technological education.

AACC also supports over 30 ATE students and alumni of ATE programs from around the country. FLATE, through its NSF grant nominated Mary Ngo from Palm Beach State College (PBC), who will graduate next

month with her ET Degree and Chris Kromke an alumni of the Engineering Technology program at Central Florida College (CF) each received a Student Award for Excellence. They were recognized for their leadership and academics at their respective programs. Chris stated that "it was an amazing experience to meet and network with students in programs like the AS ET from around the country."

Chris Kromke, who graduated in December 2022, has started his own business in robotics and also works as adjunct faculty and lab supervisor at the College of Central Florida. And has begun work towards his B.S.E.T. at Daytona State College. Mary Ngo, who will receive her ET degree this December, is already working full-time at Pratt Whitney in Palm Beach County and plans to continue there after her graduation. Both Mary and Chris worked on the FLATE project with the state colleges to explore equipment for edge computing to collect data from various devices and equipment into a database for data review and analysis.

If you have Florida ET Program updates to share, please contact <u>teresa.potter@flate.org</u>.

Upcoming Events



National Apprenticeship Week is a time to recognize the instrumental role registered apprenticeship programs play in building Florida's skilled workforce and, in turn, bolstering our local and state economies. **Apprentice Florida**, a partnership between FDOE, CareerSource Florida and FloridaCommerce, educates and supports businesses, organizations and job seekers across the state with the resources they need to establish and expand apprenticeship programs.

Download the toolkit and assets here: https://bit.ly/NAWToolkit2023

Use the resources contained in this toolkit to tell your online audiences about National Apprenticeship Week: social media copy, newsletter copy and dedicated assets for social media and email headers, including videos, images and graphics.

Find planning resources and local events



2024 FCPN Symposium January 10-12, 2024 Jensen Beach, FL

Join other Career Pathways and CTE Florida leaders and practitioners for workshops, professional dialogues, and a student showcase. Learn from this year's selected Best Practice Award winners as they highlight all of the great innovation and achievements within their programs. FCPN is currently accepting submissions for Best Practice Presentations for the 45-Minute Breakout Sessions.

Submit your Best Practice Presentation today!

Symposium Registration open until Dec 15



FANUC Robotics Trainings at the College of Central Florida

The College of Central Florida Corporate College is the only FANUC Authorized Satellite Training (FAST) facility in Florida and will be presenting the following FANUC Robotics trainings on their Ocala Campus.



FANUC HandlingTool Operation & Programming January 22-25, 2024

This 32-hour course covers the tasks that an operator, technician, engineer, programmer or instructor would need in order to set up, record and/or troubleshoot programs on a FANUC Robotics HandlingTool Software package.

FANUC 2D iRVision Operation & Programming April 8-10, 2024

This 24-hour course covers the basic tasks and procedures required for an operator, technician, engineer, programmer or instructor to set up, teach, test and modify iRVision applications.

Register by Feb 23, 2024

Register by Jan 5, 2024

Opportunities

Free Professional Development Workshop January 26 - March 15, 2024 - Fridays 12pm - 1:30pm Includes Free Registration to 2024 HI-TEC Conference (July 29-Aug 1, Kansas City, MO)

This FREE and proven professional development

workshop supports educators with planning, initiating, sustaining & assessing industryeducation partnerships. Led by Mary Slowinski and Rachael Bower, the workshops are research-based, informed by community best practices, and highlight peer-based collaborative learning. As a



bonus, participants will also be eligible to receive funding to attend the 2024 HI-TEC conference held July 29 - August 1 in Kansas City, MO.

Participants will:

- · Analyze and refine partnership goals and methods
- · Gain insights on how to best initiate, support and sustain industry relationships
- · Learn to assess and evaluate partnerships
- · Create an executable industry partnership action plan unique to their needs
- Enjoy access to support, research, resources, and collegial camaraderie

Participant feedback:

• "I love the format of breaking down a giant task into organized, table-based tasks that make it all seem doable!"

 \cdot ~ "I especially appreciated listening to what other participants were doing. I came away with some great ideas and pointers."

• "Our team's biggest takeaway was the setting aside of time to plan and assess our partnership efforts in detail. We appreciated this opportunity for providing the motivation and activities to do so."

Apply by December 15

Nuts, Bolts & Thingamajigs® Grant Funding to Host Summer Manufacturing Camps

Join the summer fun AND recruit future students to your program by hosting a Nuts, Bolts



& Thingamajigs summer manufacturing camp at your college. Each summer, NBT funded several Robotics and STEM camps around Florida. Help middle and high school students develop hands-on skills and discover prosperous careers in the manufacturing industry. The summer 2024 NBT camp grant application deadline is Dec. 1, 2023, and is very easy to complete. Join State College of Florida, Central Florida College and Hillsborough Community College in these summer impactful and fun recruiting activities. **Click here for more information**.

Apply for a Summer 2024 Camp Grant by Dec. 1

Free Workshop - Metal 3D Printing in Price, Utah - December 14, 2023



Would you like some exposure to the exciting advancements and possibilities now available through Metal Additive Manufacturing (3D Printing)? If so, this workshop is for you! The University of Utah has teamed with UAMMI, Petersen Training, and RHS Consulting to introduce you to powerful technology that can help you expand your product mix, enhance your supply chain, improve your product design processes, and enter new markets (by designing and printing metal parts).

Other News & Resources

How Important are Community Colleges in Promoting STEM?

By Clive R. Belfield and Thomas Brock

Community colleges play an important role in delivering Science, Technology,

CCRC COMMUNITY COLLEGE RESEARCH CENTER

Engineering, and Math (STEM) education to students at the postsecondary level. However, this contribution has been under-recognized, in part because of ambiguous and misaligned definitions of STEM. In this review, we consider how STEM should be defined for community colleges. Conservatively, we estimate that 29.8 million U.S. workers have a community college education; of these, 6.6 million (or 22%) are working in STEM occupations. These STEM workers earn 12%–19% more than the average U.S. worker, and they generate total annual earnings of \$448 billion. Official estimates appear to undercount the STEM economy, but they undercount the community college STEM economy to a much greater extent.

Read Report

AI Helps Robots Manipulate Objects with their Whole Bodies



An artificial intelligence method called "reinforcement learning" has been used to plan contact-rich manipulations, smoothing the sudden changes in the dynamic equations caused by contact. Now, researchers at the Massachusetts Institute of Technology have discovered how to achieve the effects of reinforcement learning without the need to compute large numbers of full trajectories. While still in its early stages, this method could enable factories to use smaller, mobile robots that can

manipulate objects with their entire arms or bodies. In addition, the technique could allow robots sent on space exploration missions to adapt to the environment quickly, using only an onboard computer.

FLATE 2022-23 Webinar Series - Watch on Demand

- Developing Local Articulations to Increase Enrollment in College Programs
- How to Create Work-based Learning Opportunities
- Recruiting Strategies Best Practices
- Robots for AI and Industry 4.0 Training and Demo
- Creating Videos using Classroom Projects and Student Success Stories
- How to Increase Student Diversity in ET Programs
- How to Develop ET Dual Enrollment or Early College Programs
- Cybersecurity for Manufacturing Series (4-part)

View Webinars on Demand





The AbleTrust - 2023 DEAM Webinars on Demand

DEAM webinar discussions featured insights from a wide range of experts on disability employment issues and best practices, and if you did not have a chance to experience them, you can now watch On Demand!

• Future of Work Florida Initiative and Workforce

Preparation featuring Chancellor Kevin O'Farrell and Samantha Dudley, Florida Department of Education

- Autism at Work: A Refresher featuring Shelton Gilyard, University of South Florida School of Social Work
- New Transition-Related Legislation: What You Need to Know featuring Donna Phillips and Tracy Dempsey, Project 10: Transition Education Network
- Workplace Culture & Employee Engagement featuring Kari Bates, The Arc Jacksonville; Jim Atkinson, Progressive Abilities Support Services; Keith Bourkney, employU; and Sharon Foster and Jackie Olson, MacDonald Training Center
- Together We Thrive: ERGs Bridging Gaps for People with Disabilities and Their Families featuring Abby Childress, Florida Blue; Tammy Martinez, Johnson & Johnson; and Kristin Smith, Nicole Delvesco and Paul Spann, Kennedy Space Center

Watch Today!



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FLATE Resources



FLATE wiki



madeinflorida.org



FLATE's Manufacturing Matters Dashboard

A tool highlighting manufacturing education, careers, industry, and their impact on Florida's economy.

Click here for FLATE's Manufacturing Matters FL Dashboard

Florida Department of Education Resources



Florida's Workforce Education Initiative

With Career, Technical and Adult Education (CTAE), you can train for a better career quickly and affordably.



Apprenticeship programs are a proven training method benefiting job seekers and businesses.

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