OhioTechNet

Ohio Technical Skills Innovation Network

MARCH 2025

- Peer-to-Peer Collaboration
- Access to Valuable Resources, Trainings, and Events
- Innovative Program Models

Date: March 18, 2025

www.ohiotechnet.org

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REMINDER:

Based on a request from our IT Department, Ohio TechNet will be not allowing the use of AI Meeting Assistants in our meetings

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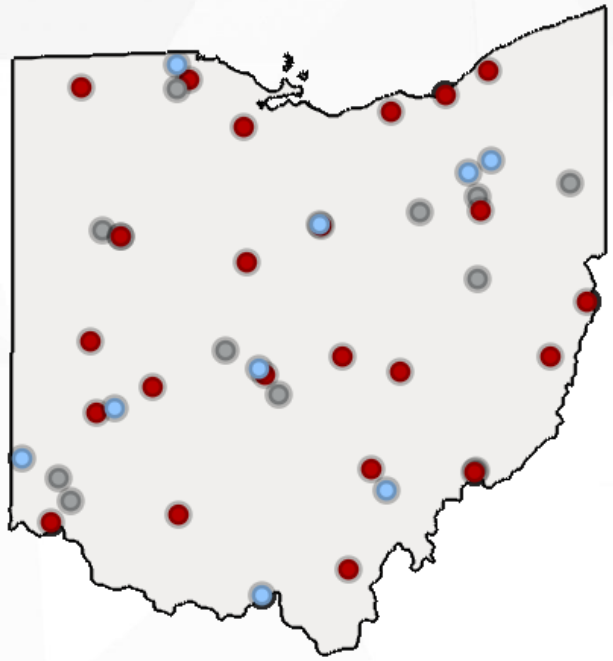
Partners in Training Ohio's Manufacturing Workforce



OTN Members:

- Community College
- Career Technical Center
- University

Vision

The members of the Ohio Technical Skills Innovation Network, or Ohio TechNet, are nationally recognized for partnering with industry to implement collaborative, innovative solutions that meet manufacturing and tech workforce needs.

Mission

Ohio TechNet supports workforce development and academic professionals to incubate, develop and sustain programming that accelerates the growth of Ohio's manufacturing & technical workforce.

Purpose

Ohio TechNet partners benefit from peer-to-peer collaboration, technical assistance and access to resources, making program expansion and innovation at their institution more efficient, faster to implement and easier to sustain.

Strategic Focus Areas

Ohio TechNet's strategic focus areas provide partners with best practices, models, and technical assistance to address the critical workforce needs in the state

- **Guided Pathways for Youth**
- **Reaching New Audiences**
- **Innovative Earn and Learn**
- **Faculty and Educator Development**
- **Partnering with Industry**

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MORNING ICEBREAKER

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3 Truths and 1 Lie

St. Patrick's Day

What's the lie??

What's the lie??

1. St. Patrick wasn't Irish
2. Corned beef and cabbage is an American invention
3. St. Patrick wore blue, not green
4. The first St. Patrick's Day parade was in Ireland

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3 Truths and 1 Lie

St. Patrick's Day

1. St. Patrick wasn't Irish
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4. The first St. Patrick's Day parade was in Ireland

The first parade was in America and took place in New York City in 1762

Innovating, Investing, and Leading Development of the Defense Industrial Base Event

A special event recognizing Ohio TechNet and NextFlex

Wednesday, April 30th, 2025 | 9:30am – 2:00pm

Lab Tours and Networking Opportunities!

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NEXTFLEX

PANEL HIGHLIGHTS

State Perspectives: Education and Industry Working Together for Impact

This panel highlights Ohio TechNet members' critical role in expanding earn-and-learn programs, forming partnerships to meet defense industry talent needs, and bridging education with workforce demands.

Panelists:

- **Courtney Tenhover**, Manager of Training Projects, Lorain County Community College & Ohio TechNet
- **Jeff Miller**, Senior Vice President, Sinclair College
- **Jessica Borza**, Managing Director of Workforce Services, The Ohio Manufacturers' Association
- **John Agostinelli**, Robotics & Automation Instructor, Amherst Exempted Village Schools
- *Moderated by **Terri Sandu**, Director, Ohio TechNet*

National Perspectives: Industry Role in Advancing Innovation in Manufacturing Talent

Join thought leaders from Novagard, UES, and EWI as they discuss transformative industry-academia partnerships reshaping workforce strategies and driving technological breakthroughs. Educators and industry professionals will gain actionable insights into critical trends and strategic priorities for building a robust manufacturing talent pipeline.

Panelists:

- **Mark Norfolk**, Director of Government Business Development, EWI
- **Sarah Nash**, Owner and CEO, Novagard
- **Lucas Beagle**, Senior Director, Biological and Nanoscale Technologies Department, Blue Halo
- *Moderated by **Lauren Friedman**, Senior Program Manager, Workforce Development, NextFlex*

OhioTechNet

- OSCN Community of Practice (CoP) Symposium
- OSCN Train the Trainer Semiconductor Series
- Future Technician Learning Community
- FlexFactor Program Growth and Acceleration at Zane State
- Future-Ready Educator Bootcamp: Exploring Industry 4.0
- Sinclair Community College's Professional Development for the Future of Education
- Dayton Digital Transformation Summit

OHIO SEMICONDUCTOR COLLABORATION NETWORK

OSCN COMMUNITY OF PRACTICE SYMPOSIUM SPRING EVENT

APRIL 11, 2025 | COLUMBUS STATE COMMUNITY COLLEGE

We are excited to open registration to the Spring Community of Practice Symposium on April 11, 2025, at Columbus State!

Register here!

Please join us for a stimulating FREE symposium at Columbus State, this event offers a unique opportunity to connect with instructional teams (including faculty, teachers, administrators, tutors, advisors, and other support specialist), employers, vendors, and project leaders in advanced manufacturing. These professionals are representing community colleges, universities, career centers, K12 institutions, and key stakeholders. Our goal is to foster collaboration, networking, and professional development across Ohio.

At this in-person event, participants can expect to learn more about AI tools and curriculum, technical math discussion, ISP engagement, successful innovative earn and learn models, and much more!

OACC

The Ohio Semiconductor Collaboration Network (OSCN)

- The OSCN was established September 2023 through Intel SERP grant funding
- OSCN represents and supports all Ohio Community and Technical colleges with the Intel SERP grant initiative
- The network developed 3 "new" courses for the Semiconductor Technician Fundamentals Certificate:
  - **Manufacturing Fundamentals**
  - **Semiconductor 101**
  - **Vacuum Systems Technology**
- These course materials can be found and obtained through OhioLINK: www.ohiolink.oercommons.org

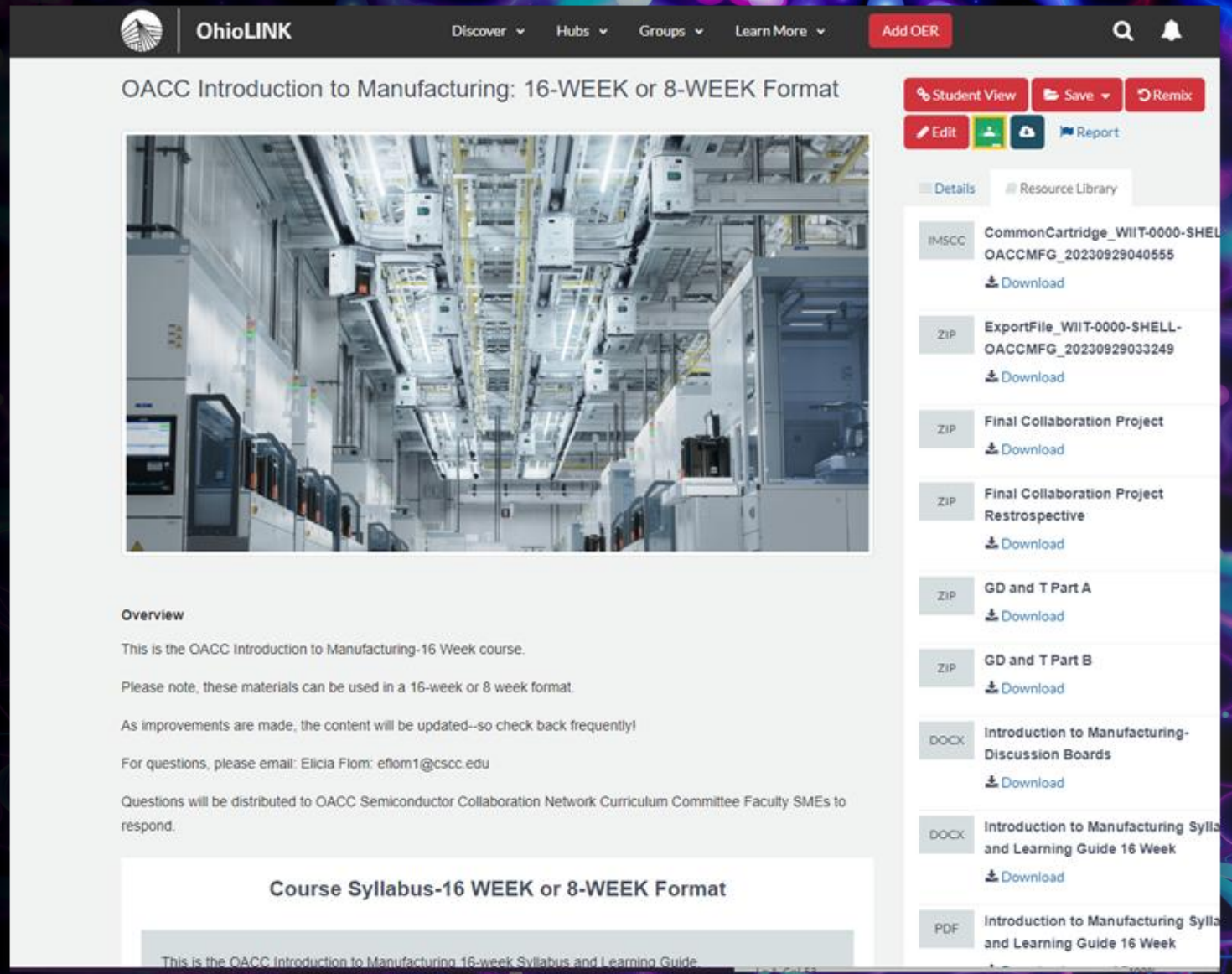
COMMUNITY COLLEGE

OSCN
OHIO SEMICONDUCTOR COLLABORATION NETWORK

OhioLINK Curriculum Resources

www.ohiolink.oercommons.org

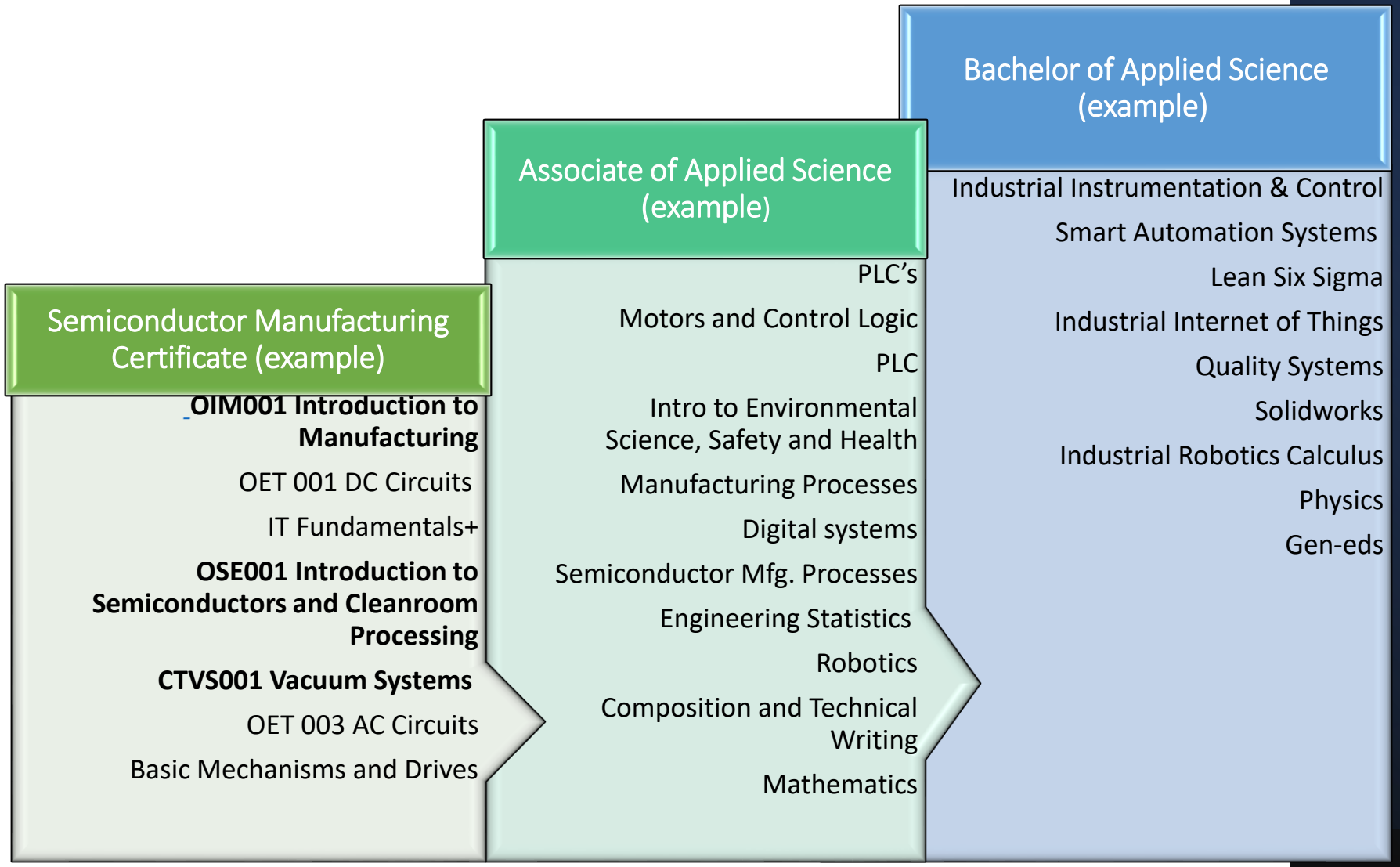
- Syllabi
- Presentation Slides with Lecture Notes
- Knowledge Checks (Quizzes, Tests)
- Lesson Plans
- Learning Activities/Assignments
- Lab Activities and SOPs
- Blackboard Course Cartridge
- Common Course Cartridge



Ohio Semiconductor Collaboration Network

Stackable Certificate concept –

"Semiconductor Technician Fundamentals Certificate"



OSCN
OHIO SEMICONDUCTOR COLLABORATION NETWORK

Two-Semester Certificate Grows the Talent Pipeline by:

- Preparing people for Entry-Level Technician roles
- Embedding Applied Math & Career Exploration
- Facilitating structured cohort models with wraparound support
- Allowing returning students to take targeted coursework, avoiding lost credits
- Preparing people for working in a cleanroom; wearing a “Bunnysuit”
- Introducing Chemical and Cleanroom Safety
- Introducing the use of Standard Operating Procedures, working from digital checklists

OSCN
OHIO SEMICONDUCTOR COLLABORATION NETWORK

Professional Development "Train The Trainer" series

Courses:

- Introduction to Manufacturing
- Semiconductor 101
- Introduction to Vacuum Systems Technology

Objectives:

- Review OhioLINK Resources
- Provide rationale for topics and/or content level
- Share "Lessons Learned"
- Discuss "Frequent Student Questions"

OSCN
OHIO SEMICONDUCTOR COLLABORATION NETWORK

“Train the Trainer” PD uses a Flipped-Learning Model

- Locate Content available @ OhioLINK
- Download content you may be interested to teach
- Review content designated for review and discussion

OSCN Educator Preparation | “Train the Trainer”

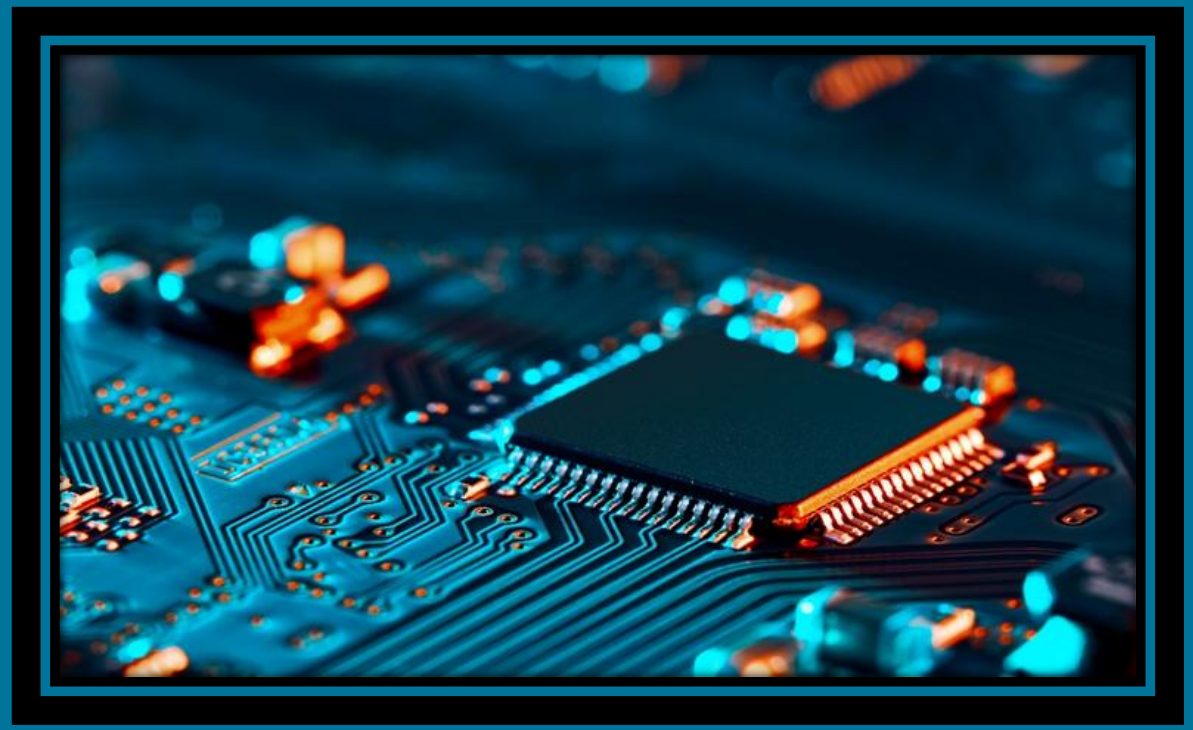
Registration QR Code

OSCN
OHIO SEMICONDUCTOR COLLABORATION NETWORK

Introduction to Manufacturing, FRIDAYS: 10:00 AM – 11:00 AM
WEBINARS: April 4, 2025 ■ April 11, 2025 ■ April 18, 2025
Registration Link https://forms.office.com/r/WiH5QQ1DQr?origin=lprLink

OSCN Educator Preparation | “Train the Trainer”

Registration QR Code



OSCN
OHIO SEMICONDUCTOR COLLABORATION NETWORK

Semiconductor 101, FRIDAY SESSIONS

MERIT 1-Day Experiential Tour, 10 AM-3 PM with lunch: Lorain County Community College **campus**, March 28, 2025

THREE WEBINARS, 3-4 PM: April 4, 2025 ■ April 11, 2025 ■ April 18, 2025

Registration Link

https://forms.office.com/r/D2i3U8B8Q6?origin=lprLink

MERIT | LCCC, 1-Day Cleanroom Event

MERIT

Manufacturing Electronics & Rework Institute for Training

OSCN
OHIO SEMICONDUCTOR COLLABORATION NETWORK

FRIDAY, March 28, 2025

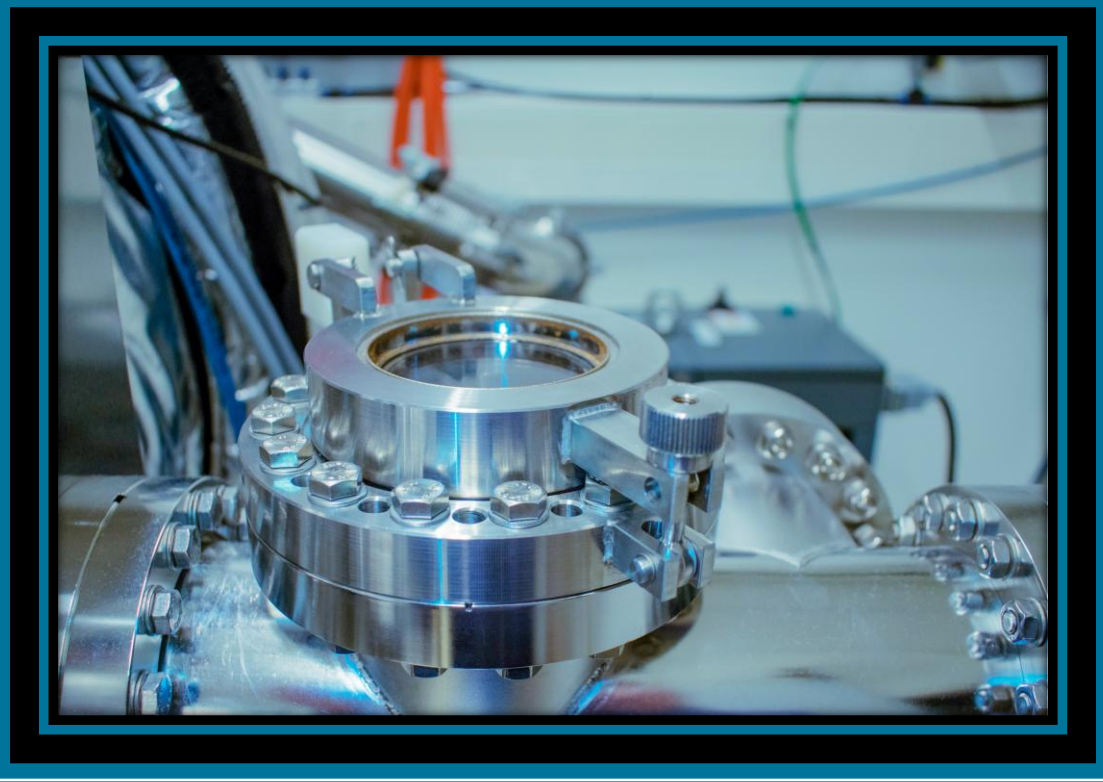
START TIME: 10:00 AM **END TIME:** 3:00 PM

Working Lunch is included

LOCATION:
Lorain County Community College
The Richard Desich Business & Entrepreneurship Center (DEC)
151 Innovation Drive | Elyria, Ohio 44035

OSCN Educator Preparation | “Train the Trainer”

Registration QR Code



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OHIO SEMICONDUCTOR COLLABORATION NETWORK

Introduction to Vacuum Systems Technology, FRIDAY SESSIONS

TWO WEBINARS, 11:30 AM - 1 PM: April 11, 2025 ■ April 18, 2025

TWO In-Person Sessions, 9 AM-3:30 PM with lunch: Columbus State Community College **campus**

April 25, 2025 ■ May 2, 2025

Registration Link

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Future Technicians Learning Community

COLUMBUS STATE
COMMUNITY COLLEGE

"Connecting Students with Industry for Career Growth"

The Future Technicians Learning Community is a space for students in technical programs to connect with employers, gain industry insights, and develop career-ready skills.

Through networking, coaching, and learning opportunities, we help bridge the gap between education and the workforce.

DOL SCC4 grant supported

FTLC Employer Engagement Goals

Our Goal:

Facilitate employer participation **once a month** (excluding breaks & holidays) to provide students with industry insights and hands-on experiences.

Ways to Get Involved:

- **Info Sessions & Webinars:** Share insights on roles, responsibilities, and job requirements.
- **Guest Speaking Opportunities:** Present on industry trends or career paths.
- **Facility Tours:** Give students a behind-the-scenes look at your workplace.
- **LinkedIn FTLC (private) Group:** Provide industry info, job postings and career / professional advice

In partnership with OACC and the Central Ohio Manufacturing Partnership (ISP)

COLUMBUS STATE
COMMUNITY COLLEGE

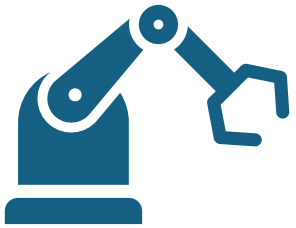
Columbus State Annual Events

CState Technation Day

An open-house with info sessions, a CSCC resource fair, and a panel with employers, graduates, and students

Wed, Apr 9 | 4:30PM-6:30PM | Mitchell Hall

Audience: Prospective Adult Learners interested in Engineering Tech programs



Engineering Technology Day

An interactive event featuring hands-on activities, lab tours, a resource fair with employer partners and/or guest speaker breakout sessions

Tue, Oct 10 | 9AM-12:30PM & 4:30PM-6:30PM | Workforce Development Building

Audience: High School students (morning) & adult learners (evening)

If you have questions regarding:

- **OSCN PD “Train The Trainer” series**
- **CSCC Future Technicians Learning Community**

COLUMBUS STATE
COMMUNITY COLLEGE

Scot McLemore
smclemore3@cscc.edu

EARLY SUCCESSES OF FLEXFACTOR AT ZANE STATE COLLEGE

- Tracey Porter, Dean of Workforce Development March 18, 2025

SECRET SAUCE?

- Leader on Campus who is a FlexFactor Champion
- Dedicated Staff
- Relationships
- Funding

DEDICATED PROGRAM MANAGER

- - Hired: August 5, 2024
- - Role: Oversees program implementation, builds relationships with schools and businesses, and delivers in the classroom.
- - Impact: Provides structure, consistency, and direct support for schools and students

STUDENT ENGAGEMENT & ITERATIONS

- - Bridgeport Schools: 4 iterations, 47 students
- - Buckeye Trail School: 2 iterations, 50 students
- - Zanesville High School: 5 iterations, 92 students
- - Total Impact: 11 iterations, 189 students engaged

KEY SUCCESS INDICATOR - OUTREACH EVENTS

- - Attended local Business Advisory Council meetings
- - Engaged in STEM-focused events like the Appalachian STEM Collaborative meetings
- - Built partnerships with Career Navigators at schools

OVERCOMING ENGAGEMENT BARRIERS

- - Some schools were historically tough to engage
- - Key strategy: Working with career-focused teachers
- - Demonstrated how FlexFactor enhances curriculum and lightens teachers' workload

CONNECTING STUDENTS TO PATHWAYS

- - Core component of FlexFactor: Helping students see STEM career pathways
- - Emphasized real-world application and career connections
- - Building excitement and awareness among students

CELEBRATING EARLY SUCCESS - APRIL 11 EVENT

- - Campus Tour & STEM Combine Activities:
- - Disc Golf Demonstration
- - Drone Demonstration
- - Chemistry Demonstration
- - Energy Bike (linked to engineering programs)
- - Cybersecurity Demonstration
- - Health Program Demonstration
- - Wrap-Up: Industry Panel Discussion:
- - Invited Guests: Intel (not confirmed), Manufacturer, Local Hospital, NextFlex Representative
- - Topics: Early education decisions, broad STEM career opportunities, panelists' "moment when" stories

Q&A

Thank You!

Tracey Porter, Dean of Workforce Development

tporter2@zanestate.edu

Robin Carroll, FlexFactor and Career Coordinator

rcarroll@zanestate.edu

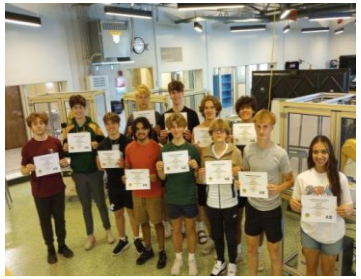
Industry 4.0 Teacher Training

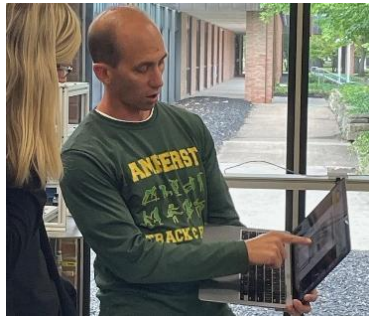
Automation and Robotics

For more information, please review our website:
https://www.lorainccc.edu/engineering/industry-4-0-teacher-training/

Programs Include:

- ****NEW**** **Future-Ready Educator Bootcamp: Exploring Industry 4.0**
  - Introduction to Industry 4.0 for Educators (Virtual)
  - Introduction to Robotic Programming using CoderZ (Virtual)
  - Introduction to Automation and Robotics (In-Person)
- **Facilitator Trainings:**
  - Introduction to Introduction to Robotics for Educators
  - Introduction to Programmable Logic Controllers (PLCs) for Educators
  - Both Programs include:
    - Hands-on, Industry-Relevant Projects
    - Industry-Recognized Credentials
    - Capstone Course
    - Build Your Industry Network





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Teacher Training Success:

- Two bootcamps held in August and January
- Partnered with Sinclair for the January bootcamp for the online portion
- Six (6) teachers have taken advantage of the Graduate Credit offered with Ashland University

Certificate Program Success:

- Certification program was filled and interest in next year
- Having the option to take one pathway at a time was helpful; about half of the participants are only taking one pathway
- Majority of participants are from Career Technical Centers, and all are in the K-12 space

Challenge: Finding dates that work for K-12 population

Recruitment Success:

- Relationships, Relationships, Relationships

Digital Transformation and Advanced Manufacturing

Module	Topic
1	What is Digital Transformation?
2	Introduction to Product Lifecycle
3	Problem Solving with Rapid Prototyping
4	Modern Manufacturing in Industry 4.0
5	Supply Chain Logistics in Industry 4.0
6	Industrial Data Acquisition and Management
7	Quality Assurance and Control
8	Industrial Data Management and Governance
9	Data Analysis and Visualization
10	Digital Twin Technology
11	Cybersecurity
12	Artificial Intelligence and Applications
13	Human Factors and Change Management
14	Capstone Project
15	Capstone Project Presentations

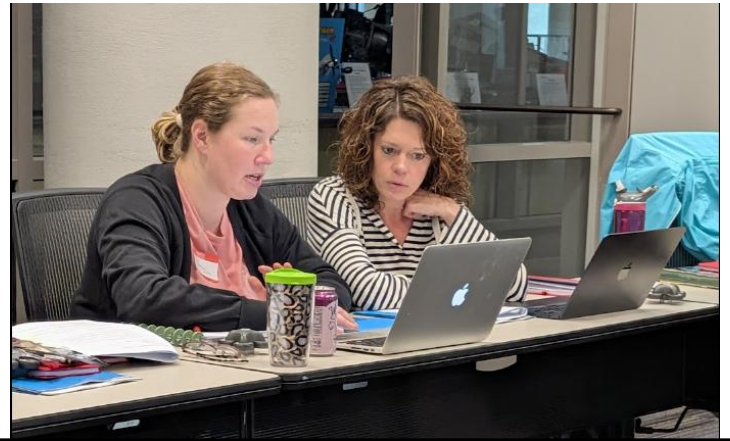
- **Goal:** Expand talent pipelines to meet critical workforce needs in advanced manufacturing and technology.
- Foundations in Digital Transformation
  - Comprehensive Digital Transformation curriculum
  - Aligned with the Ohio Manufacturing Competency Model
- Curriculum Replication: OU, CSU, Piqua High School

Professional Development for the Future of Education

- Train-the-Trainer Workshops
  - Equip educators with practical strategies and industry-aligned insights, bringing new technologies and concepts to the classroom
  - Utilize Foundations in Digital Transformation curriculum
  - Session 1: 11 educators participated
  - Session 2: 8 educators participated
- Lesson implementation
  - AI, 3D printing, CAD

Session 1: 11 participants

Session 2: 8 participants



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Dayton Digital Transformation Summit

Registration:

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Partners in Training Ohio's Manufacturing Workforce

Thank you to all the presenters today!

April OTN Meeting

April 15, 2025 at 8:30am

www.ohiotechnet.org

info@ohiotechnet.org

440-366-4215