



NJ PATHWAYS

TO CAREER OPPORTUNITIES

Aligning Education to Build an Innovative Workforce

Center of Workforce Innovation for

Manufacturing & Supply Chain Logistics

END OF YEAR
REPORT



NJ PATHWAYS
TO CAREER OPPORTUNITIES
Aligning Education to Build an Innovative Workforce

Welcoming Remarks

Catherine Starghill, Esq.

**Vice President and
Chief Workforce
Innovation Officer,
NJCCC**



Agenda

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Manufacturing & Supply Chain Logistics Projects End of Year Reports

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Upcoming Events



Our Education Partners

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- **Clayton High School**
- **County College of Morris**
- **Cumberland Regional High School**
- **Dixon Center for Military and Veterans Services**
- **Egg Harbor Township High School**
- **Essex County College**
- **Gateway Regional High School District**
- **High Point Regional High School**
- **Hudson County Community College**
- **Millville High School**
- **Minority Professional Truckers Association**
- **Minority Professional Truckers Association**
- **Morris County Vocational School District**
- **Newton High School**
- **Project Sufficiency / NJ Youth Corp**
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- **Rowan College of South Jersey**
- **Rowan University**
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- **Task Force Movement**
- **UCNJ Union College of Union County, NJ**
- **Walkkill Valley High School**
- **Workforce Development Board of Northwest NJ**



End of Year Report

Manufacturing & Supply Chain Logistics

Dr. Courtney Bolden, Lead Institution Representative

Karen Durkin, Lead Institution Representative

Rowan College of South Jersey

Advanced Manufacturing Stackable Degree

Dr. Courtney Bolden,
Rowan College of
South Jersey

Advanced Manufacturing Stackable Degree

Education Partners:

Rowan College of South Jersey

Salem Community College

Cumberland Regional High School

Egg Harbor Township High School

Millville High School

Gateway Regional High School

Rowan University

The Advanced Manufacturing Stackable Degree pathway project is a four-part collaborative effort involving four local high schools, two community colleges, a local industry partner, and a partner university. The project is the creation of a modular, stackable educational model that allows students to progressively gain skills, earn credentials, and seamlessly transition from high school to college and career pathways in advanced manufacturing.

EDUCATION PARTNERS:

Rowan College of South Jersey

Salem Community College

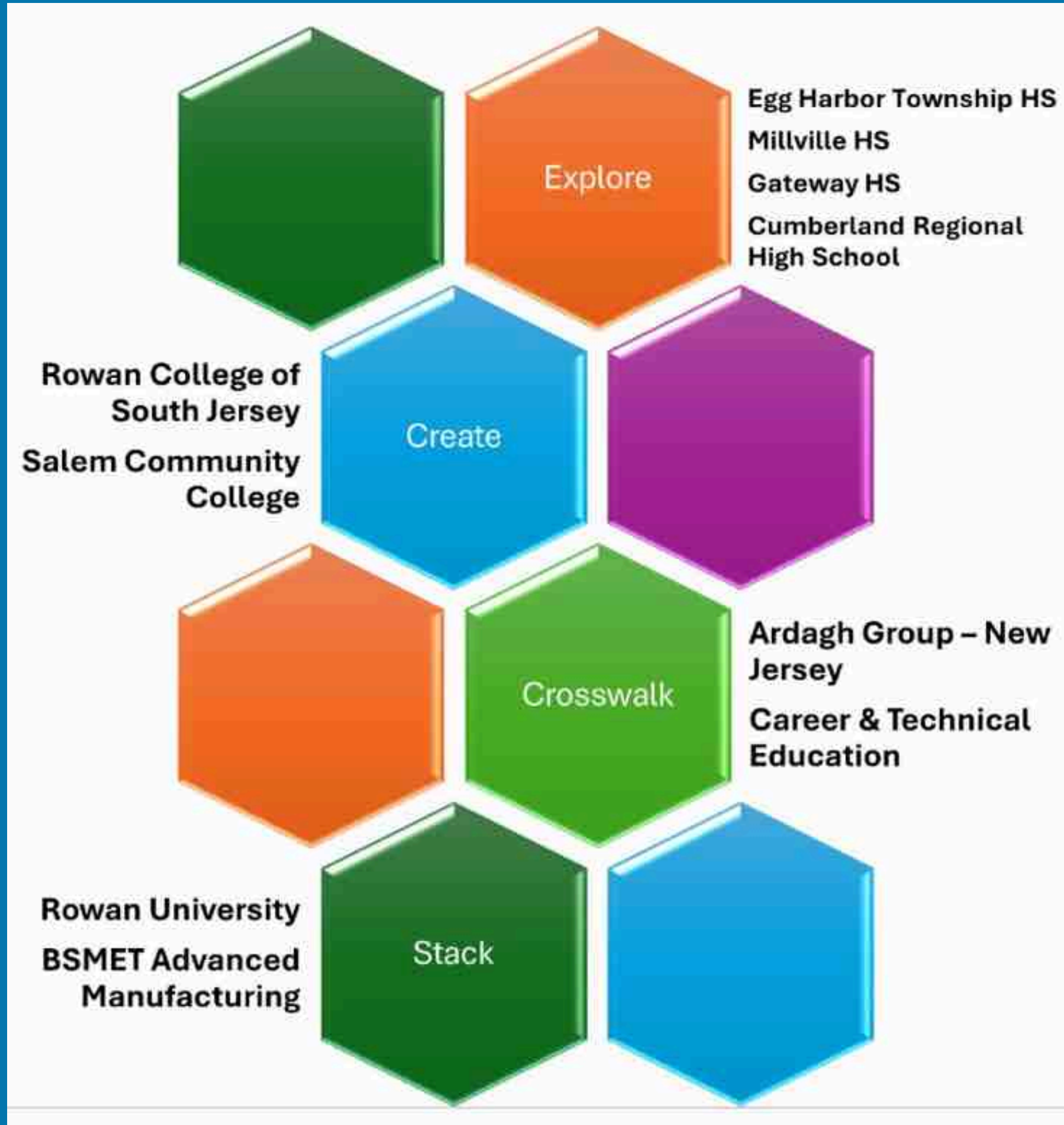
Cumberland Regional High School

Millville High School

Egg Harbor Township High School

Gateway Regional High School

Rowan University



PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

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Community College (Credit)

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PLA for Apprenticeship RTI

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Connection between Community Colleges (1+1)

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Adult Literacy

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Professional Development

Pilot

Advanced Manufacturing Stackable Degree | Explore

Provided scholarships for 40 high school students to participate in a 5-week advanced manufacturing bootcamp.

Students earned college credit:

- **Machining**
- **Automation**
- **Manufacturing Fundamentals**
- **Robotics**

Credits earned towards micro-credential.

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Advanced Manufacturing Stackable Degree | Explore

Cumberland Regional High School: Robotics Bootcamp

Cumberland Regional students earned 3 college credits in a Robotics and Motion Control course. They learned industrial robotics fundamentals and how to configure and program a Fanuc LR Mate 200 iD 4S industrial robot.



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Advanced Manufacturing Stackable Degree | Explore

Gateway Regional High School: Machining & Automation Bootcamp

Gateway Regional students earned 4 college credits in Fundamentals of Manufacturing with an introduction to tools, measurements, and machining. They also learned how to program a UR3e universal industrial robot.



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Advanced Manufacturing Stackable Degree | Explore

Millville Regional High School: Fundamentals of Manufacturing Bootcamp

Millville High School students earned 4 college credits in Fundamentals of Manufacturing with an introduction to tools and measurements.



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Advanced Manufacturing Stackable Degree | Explore

Egg Harbor Township High School: Fundamentals of Manufacturing and Machining Bootcamp

Egg Harbor Township students earned 4 college credits in Fundamentals of Manufacturing and CNC Machining. Students learned how to load materials, set work and tool offsets and how to program a 3-axis and 5-axis HAAS CNC machines.



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Advanced Manufacturing Stackable Degree | Create

Community colleges reviewed and aligned credit and non-credit courses to develop new certificates and a specialization in Advanced Manufacturing Associate of Applied Science (AAS) degree in Mechanical Engineering Technology, embedding four new career certificates.

- **CNC Operator Certificate**
 - **NIMS Certification**
- **Robotics & Automation Certificate**
- **Quality Control Certificate**
- **PLCs Certificate**
 - **PMMI Certification (Packaging Machinery Manufacturers Institute)**
- **Mechatronics Certificate**

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Pilot

Advanced Manufacturing Stackable Degree | Stackable Pathway

Rowan Collee of South Jersey and Salem County College are developing a 1+1 articulation agreement that allows Salem Vocational students who have earned SACCA credentials to transfer credits toward RCSJ's new Mechatronics Certificate.

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Advanced Manufacturing Stackable Degree | Crosswalk

Collaborated with industry partner, Ardagh. Developed 589 hours of related training and instruction and 32 credit hours to support a USDOL-registered apprenticeship for Industrial Maintenance Mechanic-Electro-Mechanic.

Ardagh Apprenticeship participants receive 2 RCSJ Certificates of Achievement:

- Engineering Technology Electronics Technology COA**
 - Electromechanics, Certificate of Achievement (COA)**
- **New****

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College/University**

Professional Development

Pilot

Advanced Manufacturing Stackable Degree | Stack

Rowan University + RCSJ = 2 + 2 Articulation Agreement

Established seamless transfer pathways to university partner, Rowan University, enabling students to earn a Bachelor of Science in Mechanical Engineering Technology with a specialization in Advanced Manufacturing.

EDUCATION PARTNERS:

Rowan College of
South Jersey

Salem Community
College

Cumberland
Regional High School

Millville High School

Egg Harbor Township
High School

Gateway Regional
High School

Rowan University

Advanced Manufacturing Stackable Degree

This innovative pathway allows individuals to begin their training in high school or through continuing education and advance smoothly into associate and bachelor's degree programs, aligning education with industry needs and expanding career opportunities in the advanced manufacturing sector.

Words of Advice:

Preparation matters for both credit and non-credit students.

Experiential Learning Partnership with Employer Partner Grainger

Germaine
Albuquerque,
Essex County
College

Dr. Lisa Hiscano,
UCNJ Union
College of Union
County, NJ

Experiential Learning Partnership with Employer Partner Grainger

Education Partners:

Essex County College

UCNJ Union College of
Union County, NJ

During the 2024–2025 academic year, Essex County College (ECC) and UCNJ Union College of Union County, NJ partnered with Grainger, a leading industrial supply distributor, to launch a forward-looking experiential learning initiative aimed at enhancing academic instruction with real-world applications in supply chain operations. This collaboration provided both credit and non-credit students in business, marketing, and supply chain programs with opportunities for immersive learning, technology-enhanced coursework, and meaningful interactions with industry professionals.

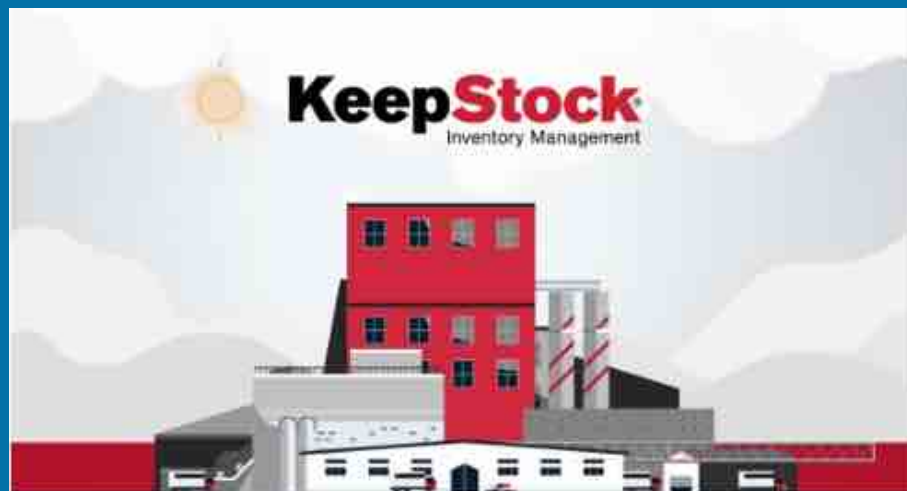
EDUCATION PARTNERS:

Essex County College

UCNJ Union College
of Union County, NJ

Experiential Learning Partnership with Employer Partner Grainger

Through the integration of Grainger's KeepStock® inventory management platform into coursework, student learning was enhanced through hands-on exposure to real-time inventory tracking, automated reordering, order processing, and warehouse logistics. Students also gained critical insights into careers in the supply chain sector, equipping them with market-ready skills and boosting their employability. ECC and UCNJ continue to leverage this partnership to introduce industry-standard technology, expand internship pipelines, and elevate workforce readiness for both adult learners and traditional students.



EDUCATION PARTNERS:

Essex County College

UCNJ Union College of Union County, NJ



GRAINGER
FOR THE ONES WHO GET IT DONE

KeepStock
Inventory Management

Experiential Learning Partnership with Employer Partner Grainger

Essex County College (ECC) and Union College of Union County, NJ (UCNJ) have partnered with Grainger to launch a hands-on learning initiative that connects classroom instruction with real-world supply chain experience.

The program targets credit and non-credit students in business, marketing, and supply chain fields, combining site visits, employer-led sessions, and tech-integrated coursework. Central to the initiative is Grainger's KeepStock® inventory management platform, which gives students practical experience in inventory tracking, automated reordering, and warehouse logistics.

At ECC, KeepStock® is embedded in the Transportation and Warehousing course (SCM 219), supported by dedicated software, mobile tools, and a fully equipped stockroom. Students develop in-demand skills like barcode scanning, supplier management, and logistics operations — preparing them for careers in retail, manufacturing, and distribution.

Students also toured Grainger facilities for firsthand exposure. UCNJ students visited the Elizabeth Branch in March and April 2025, learning about operations, Lean/JIT, Six Sigma, robotics, and career pathways. ECC students toured the Bordentown Distribution Center on March 28, gaining insight into logistics, automation, and order fulfillment.

This partnership enhances workforce readiness and boosts employability for both traditional and adult learners.

For more information, contact Cathy Skelley, at kfalduto@essex.edu * 973-877-3287



 **ESSEX**
COUNTY COLLEGE
STUDENTS FIRST

 **NJ PATHWAYS**
TO CAREER OPPORTUNITIES

 **NJBIA**
New Jersey Business
and Industry Association

 **NJ CCC**
New Jersey
Community
Colleges

 **UNION**
COLLEGE
of Union County, NJ

This program was funded by the NJ Pathways to Career Opportunity initiative, a partnership of the NJ Community College Consortium for Workforce and Economic Development and the NJ Business and Industry Association, and its Center of Workforce Innovation for Manufacturing & Supply Chain Logistics

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Pilot

Experiential Learning Partnership with Employer Partner Grainger

On March 20, 2025, 18 UCNJ non-credit students visited Grainger's Elizabeth Branch, where they observed core operations such as shipping and receiving workflows, inventory organization, branch KPIs, and the KeepStock® solution in action. The visit concluded with a Q&A session featuring the Government Account Representative, Branch Manager, and corporate leaders, who shared valuable insights into the broader supply chain landscape and the real-world applications of classroom theory.

Students gained first-hand knowledge of wholesale and retail operations within a global industrial supply distributor and learned how local branch activities connect to global supply chain strategies.



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Experiential Learning Partnership with Employer Partner Grainger

On April 10, 2025, 20 UCNJ Business and Supply Chain students participated in an immersive tour at Grainger's Elizabeth Branch. The tour included sessions on lean management, Six Sigma, AI-driven logistics, supplier relations, and warehouse management systems. UCNJ coordinated guest speaker engagements from Grainger to expand in-class industry alignment.

UCNJ is broadening its employer engagement to include Brewster Washers Inc., exploring both internships and part-time job placements.

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Experiential Learning Partnership with Employer Partner Grainger



UCNJ Grainger site visit, April 10, 2025

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Experiential Learning Partnership with Employer Partner Grainger

A cornerstone of the project was the integration of Grainger's KeepStock® Inventory Management platform into Essex County College's (ECC) curriculum. Implemented within ECC's Business Division, the platform was introduced in the Transportation and Warehousing course (SCM 219) as part of the Supply Chain Management AS degree program. The course utilized the full suite of KeepStock® tools—including software, a mobile application, equipment, and a fully equipped on-campus stockroom and cabinet system. In Spring 2025, six credit students participated in the cohort, engaging directly with inventory management processes and developing hands-on expertise with technology widely used across the supply chain industry.

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Experiential Learning Partnership with Employer Partner Grainger

Through the KeepStock® platform, students gained applied experience in:

- **Real-time inventory tracking**
- **Automated reordering and stock alerts**
- **Barcode scanning and mobile system access**
- **Supplier and order management**
- **Reporting and multi-location inventory support**

This practical application of inventory control systems enabled students to bridge classroom theory with real-world operations, strengthening their competitiveness for careers in logistics, manufacturing, retail, and related industries.

In addition to technology integration, the project included a robust series of employer site visits, giving students firsthand exposure to supply chain operations and industry best practices.

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Experiential Learning Partnership with Employer Partner Grainger

Non-credit, adult learners trained on KeepStock® technology developed skills in barcode scanning, automated reordering, mobile inventory, and real-time tracking.

On March 28, 2025, 40 Essex County College students (both credit and non-credit adult learners) visited Grainger's Northeast Distribution Center (1.3M sq. ft.), where the facility served as a hands-on classroom. The tour provided a comprehensive view of supply chain functions, including:

- **Inventory Management – KeepStock vending systems, automated tracking, stock replenishment, and supply chain efficiency.**
- **Product Flow & Logistics – product journey from receiving to outbound shipping.**
- **Inbound vs. Outbound Operations – process optimization strategies.**
- **Automation & Technology – Robotics for pallet and tote handling.**
- **Order Fulfillment & Manual Picking – Conveyor vs. non-conveyor item processing.**
- **Special Handling – Corral and ET processes: best practices and challenges.**
- **Automated Printing & Labeling – Robotics and scanning technology in packaging.**

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Experiential Learning Partnership with Employer Partner Grainger

The day concluded with a Business Deep Dive and Career Panel, where Grainger leaders shared insights on distribution strategy, workplace culture, and career advancement.

By combining technology integration with immersive site visits, the initiative deepened student understanding of supply chain operations, strengthened workforce readiness, and built clearer pathways to high-demand careers.



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Experiential Learning Partnership with Employer Partner Grainger

Essex County College Visit to Grainger's Northeast Distribution Center



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Experiential Learning Partnership with Employer Partner Grainger

Ancillary Activities and Outcomes:

This NJ Pathways project laid the groundwork for future collaborations that connect students with real-world tools, technologies, and industry expertise. The partnership between Essex County College, UCNJ, and Grainger established a strong model for integrating hands-on, industry-aligned learning into academic programs.

Through KeepStock® technology and immersive site visits, students built practical skills, explored high-demand careers, and engaged directly with supply chain operations. The collaboration advanced supply chain education while strengthening pathways to employment, workforce readiness, and regional economic growth.

The success of this pilot year provides a solid foundation for expanding experiential learning opportunities across New Jersey's higher education ecosystem.

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Experiential Learning Partnership with Employer Partner Grainger

Words of Advice:

Employer site visits significantly enhance student learning and career exploration by connecting academic theory with real-world business practice. These visits provide students with a rare, firsthand view of large-scale logistics while creating meaningful connections between classroom content and industry needs.

Incorporating direct dialogue with industry professionals into learning experiences fosters career clarity and builds students' confidence.

SACA Certification in Robotics and Automation

Tom Roskop,
County
College of
Morris

SACA Certification in Robotics and Automation

Education Partners:

County College of Morris
Essex Community College
Sussex Community
College
Morris County Vocation
School District

The SACA Certification in Robotics and Automation project is a collaborative effort among County College of Morris, Essex County College, Sussex County Community College, and Morris County Vocational School District. Together, these partners are aligning credit and non-credit education to industry credentials in robotics and automation, expanding access for high school students, adult learners, and incumbent workers. The project is building clear pathways from dual enrollment to college certificate and associate degree programs, while embedding nationally recognized SACA credentials into technical courses to ensure students gain skills that match real-world employer needs.

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SACA Certification in Robotics and Automation

Both Essex County College (ECC) and County College of Morris (CCM) launched initiatives to provide access to the SACA credential and the Robotics Pathway. ECC developed marketing materials and introduced non-credit courses through its pilot program, which focused on engaging underrepresented high school students. Meanwhile, CCM partnered with local high schools to deliver a Robotics Bootcamp as a non-credit opportunity designed to help students enhance their employability immediately after graduation.

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SACA Certification in Robotics and Automation

County College of Morris (CCM) has embedded robotics and automation coursework into its Engineering Design & Advanced Manufacturing pathway. The new curriculum includes ENR-134 Robotics and Automation I, available to high school dual enrollment students AY25-26.

CCM assisted in the development of additional programs, such as "Emerging Technologies" through its high school partner, to incorporate SACA credentialing. This also assists with possible dual enrollment through shared outcomes mapping.

Pathway Connection Resources:

- Course curriculum development for ENR-134 Robotics and Automation I**
- Integration into Share-Time Dual-enrollment curriculum for delivery in AY25-26**

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SACA Certification in Robotics and Automation

Essex County College (ECC) launched a non-credit SACA Bootcamp, actively recruiting from adjacent program cohorts and underserved populations. Information sessions were scheduled in April 2025 and the program was delivered in hybrid format with virtual sessions held in May 2025, followed by hands-on delivery in labs at ECC.

Pathway Connection Resources:

- **Bootcamp curriculum and SACA certification alignment.**

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SACA Certification in Robotics and Automation

County College of Morris is designing an associate degree pathway building on its certificate program. Essex County College is embedding SACA credentials into its electrical technology course through collaboration with faculty. Sussex continues to enhance its AAS in Technical Studies with acquisition of new equipment and professional development for its course offerings.

Pathway Connection Resources:

- **Robotics Track proposed for CCM's AAS in Electronics Engineering Technology program and will undergo Curriculum review in Fall 2025. This process was impeded due to reaccreditation timelines.**
- **ECC has integrated the SACA C-101 certificate into its ELT-115 Electrical Circuits I course in its Electrical Engineering Technology Program**

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SACA Certification in Robotics and Automation

Partners are identifying learning outcomes to guide placement and assessment of students in real-world experiences with employer partners.

EDUCATION PARTNERS:

County College of
Morris

Essex Community
College

Sussex Community
College

Morris County
Vocation School
District

SACA Certification in Robotics and Automation

Ancillary Activities or Outcomes:

- **Broader dialogue with institutional partners is opening up new opportunities for locally responsive training in automation.**
- **Creation of a dedicated professional development day featuring robotics-focused workshops for high school educators.**

Words of Advice:

- **Encourage cross-pollination between pathways to strengthen exposure and enrollment.**
- **Frame automation as a universal skill—relevant across industries and jobs.**
- **Have open, early conversations with industry about expectations.**

CDL Owner Operator Certificate Program

Kaina Hanna,
Camden
County College

CDL Owner Operator Certificate Program

Education Partners:

Camden County College
Hudson County Community College
Sussex County Community College
High Point Regional High School
Newton High school
Wallkill Valley High school
African American Chamber of Commerce NJ
Driven By Success
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Minority Professional Truckers Association
Task Force Movement
Project Sufficiency/NJ Youth Corp
Workforce Development Board of Northwest
New Jersey
160 Driving Academy

CDL Owner-Operator Certificate Program was designed to address the challenges of women, minority, and veteran truck drivers in becoming owner-operators of trucking businesses.

Camden County College, Hudson County Community College, and Sussex County Community College, partnered with the African American Chamber of Commerce of NJ and their industry partners, the Driven by Success team (comprised of the Task Force Movement, Minority Professional Truckers Association, and Dixon Center) to develop the Owner-Operator Training Academy, named “The Trucking Business Academy,” which provides participants with an Owner-Operator tool kit.

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PLA for Apprenticeship RTI

PLA

Connection between Community Colleges (1+1)

Experiential Learning

Connection to CBOs

Adult Learners

Adult Literacy

Connection to 4-Yr College/University

Professional Development

Pilot

CDL Owner Operator Certificate Program

Sussex County Community College (SCCC) lead the development of a new academic initiative: a 30-credit certificate program for CDL (Commercial Driver's License) Owner-Operators. This program has been thoughtfully designed to prepare students for entrepreneurial opportunities in the commercial trucking industry, equipping them with both the practical skills and business knowledge required to succeed as independent operators.

The proposed certificate has been fully reviewed and approved by the internal academic leadership at SCCC. The next step in the process is securing approval from the AIC at the state level. Once the AIC approval is granted, the college will initiate a marketing campaign to promote this new opportunity to prospective students.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

PLA for Apprenticeship RTI

PLA

Connection between Community Colleges (1+1)

Experiential Learning

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Professional Development

Pilot

CDL Owner Operator Certificate Program

In anticipation of the program's launch, estimated for fall 2026, SCCC has already begun planning for dual enrollment opportunities with local high schools. High Point Regional High School, Newton High School, and Walkkill Valley Regional High School have been identified as key partners in this endeavor.

Pathway Connection Resources:

Materials are not yet available – currently awaiting AIC approval

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Adult Literacy

Connection to 4-Yr College/University

Professional Development

Pilot

CDL Owner Operator Certificate Program

Camden County College, Hudson County Community College, and the Driven by Success team have collaboratively developed an innovative six-module, non-credit program designed to prepare individuals to successfully own and operate their own trucking businesses. This program, titled the “Trucking Business Academy,” provides students with a foundation in both entrepreneurship and industry-specific knowledge, ensuring they are equipped to enter the commercial trucking industry as independent owner-operators.

Each of the six modules in the Trucking Business Academy focuses on a key area critical to launching and managing a successful owner-operator business. The modules include: Introduction to the Business Basics of Owner-Operators, Safety/Compliance/Regulations, Sales and Marketing Strategy, Insurance and Risk Management/Permits, Innovation and Technology, and Health and Wellness.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

PLA for Apprenticeship RTI

PLA

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Professional Development

Pilot

CDL Owner Operator Certificate Program

By the conclusion of the program, students will have developed a personalized business plan they can use to launch their own business and will be prepared to move forward with confidence into a high-demand and rewarding career as owner-operators.

Pathway Connection Resources:

- **Information session slides and script**
- **Lesson plans for each module**
- **Various instructional resources**
- **Pre-training survey**
- **Program marketing flyers**
- **Trucking Business Academy syllabus**
- **Final program schedule outlining hours for each module**

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

Sussex County Community College (SCCC) initially aimed to align the non-credit CDL Owner-Operator course modules with existing credit-bearing courses within its academic catalog. However, during the review process, it became clear that the content and structure of the non-credit modules included unique nuances and specialized subject matter that did not fully align with existing courses. SCCC took a proactive approach by developing elective courses to include within the certificate. These electives were specifically designed to bridge the gaps and ensure that students enrolled in the credit certificate program receive a comprehensive, industry-relevant education.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

Camden County College (CCC) and Hudson County Community College (HCCC) have launched their programs as non-credit offerings. This approach allows for flexibility in program design and the opportunity to pilot course content with minimal barriers. Once the curriculum has been finalized and successfully delivered, CCC and HCCC plan to submit their non-credit modules for PLA evaluation within their respective institutions. Through PLA, students who complete the non-credit training maybe eligible to receive academic credit based on demonstrated learning outcomes. This dual-pathway approach underscores a shared statewide commitment to creating accessible, stackable credentials that serve both workforce and academic goals.

Pathway Connection Resources:

- Lesson plans for each module

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

Camden County College, Hudson County Community College, and Sussex County Community College have joined forces with several key organizations to develop and launch the Trucking Business Academy. This collaborative effort includes partnerships with Task Force Movement, Dixon Center, Minority Professional Truckers Association, and the African American Chamber of Commerce of New Jersey. Together, these institutions and organizations have developed a curriculum that not only provides the business skills needed to become successful owner-operators and business leaders, it also establishes a network of mentors for continued guidance.

This coalition is focused on multiple aspects of program development and implementation. These include designing the curriculum, identifying and securing qualified instructors, recruiting prospective students, and running a successful pilot of the Trucking Business Academy. Additionally, the partnership will culminate in hosting a Trucking Industry Summit upon completion of the program. This summit will serve as a platform for graduates to connect with industry leaders and explore potential business and employment opportunities.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Pilot

CDL Owner Operator Certificate Program

The value of these partnerships cannot be overstated. Each organization brings a unique perspective and access to different segments of the community, making them essential to the program's outreach and impact. By leveraging these relationships, the colleges aim to increase awareness of the program, attract a diverse group of students, and build momentum that extends well beyond the pilot phase. This collaborative approach ensures the Trucking Business Academy is not only successful at launch but also sustainable and scalable for the future.

Pathway Connection Resources:

- Partnership MOU template

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Pilot

CDL Owner Operator Certificate Program

Sussex County Community College's (SCCC) outreach to adult learners is currently underway through collaboration with Project Self-Sufficiency and the Workforce Development Board of Northwest New Jersey. These partnerships are instrumental in identifying potential candidates for the CDL Owner-Operator program and ensuring alignment with regional workforce needs. Regular staff update meetings between SCCC, community partners, and workforce development agencies provide essential feedback loops.

SCCC and partners host information sessions featuring both college staff and representatives from the trucking industry. These sessions serve multiple purposes: increasing community awareness of the program, deepening engagement with potential students, and providing a platform for learners to ask questions and receive direct answers from those involved in the program's delivery and from employers who understand industry expectations.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

The non-credit Trucking Business Academy pilot officially launched on July 28, 2025, at both Camden County College and Hudson County Community College. This pilot represents a significant milestone in the collaborative effort to provide accessible, high-quality training for individuals interested in becoming owner-operators in the trucking industry. Currently, 13 students are enrolled and actively participating in the program across both institutions. The pilot cohort serves as a valuable test group, allowing faculty and administrators to evaluate the effectiveness of the curriculum, instructional methods, and student engagement strategies. Feedback collected from this pilot will inform future enhancements to the program and ensure it remains aligned with both academic standards and industry expectations. The program is set to conclude on October 20, 2025, when each participant will submit their individual Capstone projects.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

Meanwhile, Sussex County Community College (SCCC) is preparing to launch its CDL Owner Operator program as a for-credit certificate program designed to provide students with a stackable credential that can be applied toward further academic advancement. Currently, the certificate program at SCCC is under review by the AIC at the state level. Pending final approval, the anticipated start date for the credit-bearing program is fall 2026.

Pathway Connection Resources:

- Information session slides and script
- Program marketing flyers
- Trucking Business Academy syllabus
- Final program schedule

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

The African American Chamber of Commerce of New Jersey and their partners, Minority Professional Truckers Association, Dixon Center for Military and Veterans Services, and Task Force Movement, are playing a key role in supporting the success of the Trucking Business Academy applying real world experience and developing a curriculum to address challenges faced by entrants into the trucking business sector, recruiting students from underrepresented communities, and identifying other industry partners and stakeholders. This is leading to the development of quarterly professional development sessions for instructors and staff.

These sessions are designed to emphasize inclusive instruction, entrepreneurship, and the real-world challenges faced by owner-operators in the trucking industry. A central focus of this initiative is to bridge the cultural and experiential gaps that can exist between traditional instructional approaches and the lived realities of aspiring minority, women, and veteran owner-operators.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

To address these gaps and better support student success, several solutions have been initiated. One is a series of “fireside chats” featuring successful industry professionals—particularly veteran, minority, and women owner-operators—who will share their personal journeys, challenges, and accomplishments. These informal conversations aim to inspire students, humanize the path to business ownership, and provide insights that go beyond textbooks.

Another innovative strategy is the Trucking and Transportation Leadership Roundtable, a small, focused convening of educators, community leaders, and industry experts. This group will work collaboratively to inform curriculum updates, shape mentorship initiatives, and ensure alignment between training programs and workforce needs.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

Several ancillary initiatives are being developed to enhance the student and stakeholder experience. One is the annual “Driven by Success: COI Meeting” led by the African American Chamber of Commerce of New Jersey. This event brings together stakeholders for networking, policy discussions, and collaboration around workforce development in the transportation industry. Another is the creation of a Mentor Speaker Bureau composed of alumni and professional mentors to speak in classrooms and at community events, as well as, mentor graduates of the Trucking Business Academy.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

CDL Owner Operator Certificate Program

All of these efforts will culminate in the Trucking Industry Summit scheduled for October 24, 2025. This event will bring together students, alumni, educators, and industry leaders to celebrate program success, share insights, and create pathways for employment, business development, and professional growth within the trucking and logistics sector.

Pathway Connection Resources:

- Trucking Industry Summit flyer



The flyer is for the 'Driven By Success Summit: Steering Excellence in Minority & Veteran Transportation Careers'. It features a red and white color scheme with a background image of a trucking yard. The top left has the logo for the African American Chamber of Commerce of New Jersey, with the tagline 'PEOPLE PARTNERSHIPS & POLICY'. Below this is the 'TRAINING AND DEVELOPMENT INSTITUTE' logo. The main title is 'Driven By Success Summit: Steering Excellence in Minority & Veteran Transportation Careers'. The date is Friday, October 24, 2025, from 9:30 AM to 2:00 PM, at The Social Profit Center- 1 N. Johnston Ave., Hamilton, NJ 08609. The flyer lists an 'EXPERT PANEL DISCUSSION' on 'Navigating the Road Ahead: Workforce, Contracting, Insurance & Brokerage in Transportation' and a 'FIRESIDE CHAT' on 'Driving Change: Opportunities and Trends for Minority and Veteran Owner-Operators'. A 'CLICK HERE TO REGISTER' button is provided. The 'Panelists & Guest Speakers' section includes: Keynote Remarks by Francis K. O'Connor, Commissioner, New Jersey Department of Transportation; Master of Ceremony by Bydeia Harmon, Davis EIS/AACCNJ; and a row of six other speakers: Dr. John E. Harmon, Sr. (IOM Founder, President & CEO, AACCNJ); Jeffrey M. Harmann (Chairman & CEO, Harmann Services, Inc.); Teresa Watson (Director, Minority Professional Truckers Association); Henry Rolfe (CEO, Corra Logistics Services); Catherine Frugé Starphill, Esq. (VP and Chair, Workforce Transition Office, New Jersey Council of County Colleges); and Michael Earle (President, The Earle Corporation). The bottom of the flyer includes the website www.aaccnj.com, the address 579 West State Street, Trenton, NJ 08618, 609-571-1620, and logos for various partners including MPA, TALK FORCE MOVEMENT, NJ PATHWAYS, Sussex County, and Driving Academy.

3D Printing

Kevin Schmidt,
Camden
County College

**Conrad
Mercurius,**
Raritan Valley
Community
College

3D Printing

Education Partners:

Camden County
Community College

Raritan Valley
Community College

Bound Brook High School

Clayton High School

The 3D Printing pathway project is a collaborative effort designed to introduce, train, and connect learners of all ages to the rapidly growing field of additive manufacturing. Through targeted engagement with high schools, community colleges, industry partners, community-based organizations (CBOs), and adult learners, the program provides multiple on-ramps into technology-driven careers. The pathway combines awareness-building events, non-credit training, Prior Learning Assessment (PLA) options, experiential learning opportunities, and workforce-aligned programming. The goal is to equip students and adult learners with the skills, knowledge, and industry exposure necessary to thrive in 3Dprinting and advanced manufacturing roles while fostering equity, accessibility, and innovation across the talent pipeline.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

PLA for Apprenticeship RTI

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Adult Literacy

Connection to 4-Yr College/University

Professional Development

Pilot

3D Printing

A series of 3D printing workshops and demonstrations at local high schools showcased real-world technology applications in additive manufacturing. Collaboration with local high school STEM clubs to deliver specialized workshops, guest lectures, and mentorship opportunities create direct engagement with students interested in technology.

Camden County College (CCC) hosted a series of 3D Printing Open House Days at its makerspace and 3D printing lab. These events welcomed high school students and their families to explore the college's facilities, meet instructors, and take part in interactive demonstrations. Through these open houses, CCC showcased its commitment to innovation and community engagement by highlighting the creative and educational possibilities of 3D printing technology.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

PLA for Apprenticeship RTI

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Professional Development

Pilot

3D Printing

Camden County College hosted two one-week Additive Manufacturing Symposiums in June and July 2025 introducing students to 3D printing technology and design. The first session included 8 students, and the second included 39 students, providing hands-on learning in CAD design, printer operation, and materials applications. The events built awareness and encouraged enrollment in additive manufacturing and related programs.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

3D Printing

Raritan Valley Community College developed a comprehensive entry-level curriculum in additive manufacturing, consisting of non-credit Level 1 and Level 2 courses. These foundational programs are designed to equip students with essential skills in 3D printing and digital fabrication while aligning with industry-recognized competencies. The curriculum serves as both a stepping-stone toward advanced training opportunities and a launchpad for students seeking immediate entry-level positions in the field.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

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Professional Development

Pilot

3D Printing

Curriculum was intentionally designed to integrate with existing academic pathways. Through Prior Learning Assessment (PLA) opportunities, students can translate non-credit coursework into credit applicable toward the Additive Manufacturing (3D Printing) Certificate. This structure creates a clear and accessible on-ramp to the Associate of Applied Science (AAS) program, ensuring a smooth transition for students as they advance from foundational training to credit-bearing studies and beyond.

Pathway Connection Resources:

- **Level 1 BOOTCamp 3D**
- **Level 2 Intermediate 3D**

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

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Professional Development

Pilot

3D Printing

Alignment of Camden County College's (CCC) 3-credit Additive Manufacturing (3D Printing) course is in progress. The course is being integrated into CCC's Precision Machining Technology A.S. degree (PMT.AAS) and is not a standalone curriculum.

The first scheduled running of CIM-119 was planned for Fall 2025. However, the course was cancelled due to low enrollment. Efforts are underway to increase outreach and promotion to strengthen enrollment for future semesters.

Pathway Connection Resources:

- **[CIM-199 additive mfg.process \[41\]](#)**
- **[Department Master Syllabus cim-199 with detailed outline](#)**

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Credit)

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Pilot

3D Printing

Developed PLA Pathway Guides to demonstrate how non-credit training articulates into credit. Example: RVCC non-credit certificate courses transfer into Camden County College credit programs. A 1+1 partnership between RVCC and CCC aligns credit and non-credit programming for seamless transitions between institutions is currently pending approval. This structure will streamline student pathways and accelerate time to credential completion.

Engaged with local high schools to raise awareness of PLA credits. Credits articulate directly into the Additive Manufacturing (3D Printing) program.

Pathway Connection Resource:

MOU Machining Technology with 3D Printing

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Professional Development

Pilot

3D Printing | Bootcamp

CCC is exploring opportunities with their local workforce boards and CBOs to establish scholarships and grant-funded training pathways. CCC is planning to create customized training initiatives aligned with community partner needs, with a focus on expanding access to technical and workforce programs.

Similarly, RVCC partnered with the Somerset Workforce Development Board to provide scholarships and grants for individuals referred by Community-Based Organizations (CBOs), reducing financial barriers to training. Additionally, tailored training programs were designed to meet specific community needs— for example, veteran-focused manufacturing training integrated with AWS Welding certification.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

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Professional Development

Pilot

3D Printing | Bootcamp

Pilot Experience: Infusing Additive Manufacturing into AWS MIG Welding

RVCC launched a pilot integrated training model embedding Additive Manufacturing (3D Printing) modules into the AWS MIG Welding and Mechatronics courses, creating an interdisciplinary learning experience.

The pilot exposed 20 students to advanced manufacturing technologies beyond traditional welding, demonstrating clear connections to certificate and degree pathways. Participants developed both hands-on welding skills and introductory additive manufacturing competencies, enhancing employ ability and cross-training potential.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

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Community College (Non Credit)

Community College (Credit)

Apprenticeship Development

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Professional Development

Pilot

3D Printing | Bootcamp

The pilot served as a bridge to highlight opportunities in certificate programs and PLA (Prior Learning Assessment) pathways, ensuring students understand how training can stack into future academic and career advancement.

PATHWAY CONNECTIONS:

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Professional Development

Pilot

3D Printing | Bootcamp

Professional Development Path: Additive Manufacturing Train-the-Trainer

As part of our commitment to expanding technical expertise among workforce educators, newly onboarded instructors participated in a structured Train-the-Trainer program in additive manufacturing, specifically focused on 3Dprinting. This professional development pathway provided instructors with both the theoretical knowledge and hands-on experience necessary to effectively teach 3D printing concepts to students.

PATHWAY CONNECTIONS:

Connection to High School (Non-Credit)

Connection to High School (Dual Enrollment)

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Community College (Credit)

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Professional Development

Pilot

3D Printing | Bootcamp

The training utilized Ultimaker and FlashForge platforms, ensuring instructors became proficient with industry-standard hardware and software tools. Key components of the program included:

- **Foundations:** Additive manufacturing principles, materials, design.
- **Hands-On:** Operate, maintain, troubleshoot Ultimaker & FlashForge printers.
- **Curriculum Design:** Create engaging, student-focused lessons.
- **Safety:** Maintain safe labs while encouraging experimentation.
- **Assessment:** Evaluate projects and ensure competency mastery.

EDUCATION PARTNERS:

Camden County
Community College

Raritan Valley
Community College

Bound Brook High
School

Clayton High School

3D Printing

Ancillary Activities or Outcomes:

- **Industry Engagement:** Guest lectures, site visits, to align skills with workforce needs.
- **Cross-Disciplinary Skills:** CAD design and problem-solving integrated with 3D printing projects.
- **Professional Development:** Teamwork, project management, portfolio building, and career readiness.
- **Hands-On Learning:** Operation, troubleshooting, and maintenance of multiple 3D printer types through lab exercises.
- **Career Pathways:** Awareness of certificates, degree programs, and internships exploration.
- **Assessment & Recognition:** Portfolios and showcase opportunities for student projects.
- **Community Outreach:** STEM events, collaborative projects for community needs, and open-source design sharing.

Words of Advice:

Start Small & Scale: Pilot with a few printers and simple projects before expanding.

A man and a woman are standing in a warehouse, looking at a tablet. The woman is pointing towards a shelf of boxes. The background is filled with stacks of boxes and pallets. The image has a blue tint and is framed by large blue circular shapes on the left and right sides.

Q&A

Center of Workforce Innovation for Manufacturing & Supply Chain Logistics

Closing Remarks

Catherine Starghill, Esq.

**Vice President and
Chief Workforce
Innovation Officer,
NJCCC**



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Materials**
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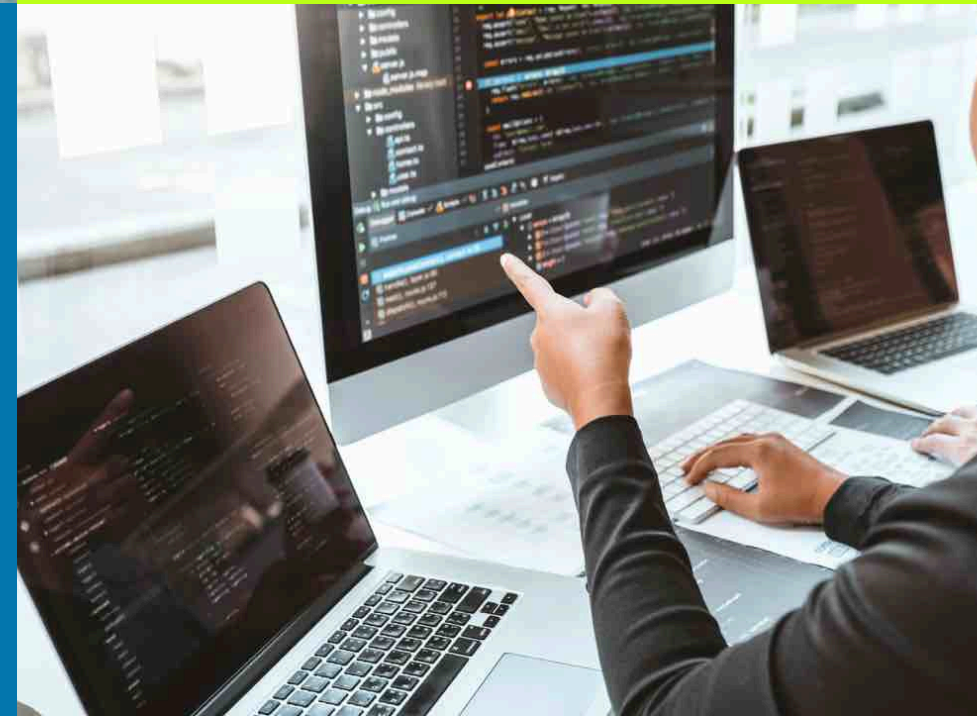
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