

A construction worker wearing a white hard hat, safety glasses, and a high-visibility orange vest with reflective green stripes is seen from the back, looking towards a large steel structure under construction. The background is filled with scaffolding and structural beams. The image has a blue color overlay.

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# INFRASTRUCTURE & ENERGY COLLABORATIVE

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

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# ***WELCOME***

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**Frederick Keating, Ed.D.**

President  
(Rowan College of  
South Jersey)

# ***OPENING REMARKS***



**Chris Emigholz**

Chief, Government  
Affairs (NJBIA)

***HOSTED BY***



**Stephanie Staub**

Director, Infrastructure &  
Energy Sectors Strategy &  
Workforce Partnerships  
(NJCCC)

# AGENDA

- Rowan College of South Jersey's Construction Programs Overview
- Hudson County Community College's Construction Management AAS
- Pathways of the Center of Workforce Innovation for Construction
- Industry Panel Discussion



# **CONSTRUCTION PROGRAMS OVERVIEW**

**Rowan College of South Jersey**



**Brigette Satchell**

Dean, Career and Technical Education



**Brenden Rickards, Ph.D.**

Vice President and Provost, Academic  
Services



# Rowan College of South Jersey

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- Formed in 2019 as a merger between Rowan College at Gloucester County and Cumberland County College
- Three campuses – main campus Gloucester County; Branch campus Cumberland County; additional location Rowan University
- Offers over 120 academic degree programs and certificates and 50 non-credit programs and certificates
- 2020-2021 Credit - Headcount : 12,645 and Credit Hours: 197,586 / Full-Time Equivalent: 6,586

# Southern New Jersey Education Ecosystem



## Colleges and Universities:

- Rowan University
- Stockton University
- Rowan College at Burlington County
- Camden County College
- Rowan College of South Jersey
- Atlantic Cape Community College
- Salem Community College

## Workforce Development Boards:

- Burlington County WDB
- Camden County WDB
- Gloucester County WDB
- Cumberland/Salem/Cape May WDB
- Atlantic County WDB



# Southern New Jersey Education Ecosystem – Construction Stackable Credentials

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- Gloucester County Institute of Technology – Manufacturing and Trades
- Cumberland County Technical Education Center – Manufacturing and Trades
- Rowan College of South Jersey
  - Engineering Technology Certificates and Degrees (Electrical and Mechanical)
  - Surveying Engineering Technology Certificate and Degree
  - Technical Studies Degree
  - Construction Management Certificates and Degree
- Rowan University
  - Engineering Technology Bachelor's Degrees
  - Bachelor of Professional Studies Degree
  - Construction Management Degree

# Rowan College of South Jersey – Center of Workforce Innovation for Construction

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- Expand relationship with Technical High Schools to evaluate the adult technical programs for academic credit towards the Technical Studies Program
- Collaborate with Labor Union Apprenticeship programming curriculum for Prior Learning Assessments to award academic credit towards the Technical Studies Program
- Articulate programming directly to Rowan University (AAS in Technical Studies – BA Construction Management)
- Develop foundation courses to prepare adult learners for entrance into apprenticeship and technical training programs

# Rowan College of South Jersey – Center of Workforce Innovation for Construction

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- Develop stackable noncredit certificate programs in Construction which will stack into the Technical Studies degree program
- Develop contextualized courses in construction, utilities, and clean energy for adult literacy learners
- Create a Train the Trainer program to prepare trade and utilities professionals for instructional opportunities at the Community Colleges
- Prepare professional development resources and workshops geared towards apprentice preparation training for adults



# ***CONSTRUCTION MANAGEMENT AAS***

**Hudson County Community College**



**Burl Yearwood, Ph.D.**

Dean of Science, Technology,  
Engineering, and Mathematics (STEM)



Hudson County Community College

**Construction Management (A.A.S)**

Gateway to Great Careers in the Construction Industry.



## A little bit about Hudson County Community College



- HCCC serves its diverse communities with inclusive programs and services that promote student success, and social and economic mobility.
- HCCC has 3 campuses – Journal Square, North Hudson, Secaucus
- HCCC offers over 70 degree and certificate programs, and more than 300 daytime, evening, weekend, and fully online classes.
- Easy to get to:
  - ✓ PATH train (from NYC and Newark)
  - ✓ Highways (I-78, I-95, Route 9)
  - ✓ Multiple bus routes
- Journal Square – fastest growing area in New Jersey with respect to new construction.



# THE STEM DIVISION AT HCCC

The STEM division prepares students to meet their educational and career goals by providing high-quality and affordable programs in Science, Technology, Engineering, and Mathematics that will lead either to gainful employment or transfer to a four-year college or university.

## PROGRAMS:

- Natural Sciences (Biology, Biotechnology, Chemistry, Physics, Mathematics, Liberal Arts: Math and Science)
- **Advanced Manufacturing (incl. Wood Science option)**
- Computer Science and Cybersecurity
- **Computer Technology**
- **Construction Management**
- **Electronics Engineering Technology**
- Environmental Studies
- **Technical Studies**



# THE CONSTRUCTION MANAGEMENT PROGRAM AT HCCC

- Construction Management is the planning, coordinating, and building of a project from conception to completion.
- Students are exposed to new construction methods, protocols, materials, testing procedures, cost estimation, and management principles.
- Our goal is to address both the technology and management aspects of Construction; as a result, graduates of our program can speak to workers and clients with knowledge and authority.





# CONSTRUCTION MANAGEMENT CURRICULUM

## FIRST SEMESTER

- CSS 100 College Student Success
- ENG 101 English Composition I
- CSC 100 Introduction to Computers & Computing
- MAT 100 College Algebra
- ENG 112 Speech

## THIRD SEMESTER

- EGS 101 Engineering Graphics
- SCI 101 Introduction to Physical Sciences
- CNM 202 Construction Procedures, Material and Testing
- CNM 201 Introduction to Basic Structures
- CNM 205 Surveying and Site Planning

## SECOND SEMESTER

- \*\*\*\*\* Diversity (Elective)
- ENG 103 Technical Report Writing
- MAT 103 Business Mathematics
- CHP 100 Introduction to Chemistry
- CNM 120 Introduction to Engineering Sciences Calculations

## FOURTH SEMESTER

- CNM 220 Construction Codes
- ECO 201 Principles of Macroeconomics
- CNM 222 Construction Project Management
- CNM 225 Cost Estimation
- CNM 230 Project Planning and Control

# CERTIFICATE PROGRAMS

(all stackable to the CNM Associate degree)

- **Certificate in Construction Management:** a one-year (34 Credit) certificate program in construction management.
- **Credit Certificates in Construction Management:** Credit Certificates in Construction Management are of 4-month (1 semester) duration. These are designed to train students for a specific career in construction industry.
- **Micro Credit Certificates:** Micro Credit Certificates in Construction Management are of two-to-four-day durations. These are short-term certificates intended to enhance employment opportunities for students in a specific field.
- **NICET Certification Preparatory Courses**

## Credit Certificates in Construction Management 3-4 months

(all stackable to the CNM Associate degree)

- Certificate in Construction Surveying & Site Planning

(explained in course CNM 205)

- Certificate in Construction Codes

(explained in course CNM 220)

- Certificate in Construction Project Management

(explained in course CNM 222)

- Certificate in Engineering Structures

(explained in course CNM 201)

- Certificate in Basic Engineering Calculation

(explained in course CNM 120)

- Certificate in Construction Materials and Testing

(explained in course CNM 202)

- Certificate in Construction Cost Estimation (Quantity Surveying)

(explained in course CNM 225)

- Certificate in Construction Project Planning and Control

(explained in course CNM 230)

## Micro Certificates in Construction Management

- Certificate in Asphalt Technology – 2 day
- Certificate in Concrete Technology – 4 day

### NICET Certification – 8 day course

NICET Level I Certification (Preparatory course)



**THANK YOU !!**



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# ***ALUMNI SPEAKER***

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**Erika Aguilar**

Current Student,  
Construction Management  
Program

# **CENTER OF WORKFORCE INNOVATION FOR Construction**



## **Stephanie Staub**

Director, Infrastructure & Energy  
Sectors Strategy & Workforce  
Partnerships (NJCCC)



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TO CAREER OPPORTUNITIES  
Aligning Education to Build an Innovative Workforce



# ***PATHWAYS:***

- **Construction Management**
- **Utilities (Constructions, Maintenance, and Operations)**



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# ***PATHWAY:***

## **Construction Management**

### **Connection to High School (Dual Enrollment)**

Connection to High School (Dual Enrollment) Align existing dual enrollment Construction Management certificate courses at Dickinson High School and Kearny High School to the Construction Management AAS.



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## ***PATHWAY:*** **Construction Management**

### **Connection to High School (Dual Enrollment)**

Create dual enrollment program at Hudson County School of Technology aligned to the Construction Management AAS enabling students to simultaneously earn a high school diploma and Construction Management AAS.

# ***PATHWAY:***

## **Construction Management**

### **Connection to Community College (Credit)**

Develop new one year / 30 credit Construction Management Certificate to allow early entry into the workforce.



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## ***PATHWAY:*** **Construction Management**

### **Prior Learning Assessment (Other)**

Evaluate non credit Construction Management Certificate courses to ensure they are stackable into the Construction Management AAS.

Evaluate National Institute for Certification in Engineering Technologies (NICET) Level I, Level II, and Design Certifications for credit within the Construction Management AAS program.

# **PATHWAY:**

## **Construction Management**

### **Prior Learning Assessment for Apprenticeship Related Technical Instruction**

Evaluate one Union Apprenticeship for credit for each of 5 Union partners (Carpenters, Bricklayers, Ironworkers 399, Operating Engineers 825, Electricians 102 & 269) to ensure they are stackable into the Construction Management AAS.



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# ***PATHWAY:*** Construction Management

## **Connection Between Community Colleges**

Create model 1+1 agreement between Hudson County Community College and other Community Colleges.

# ***PATHWAY:*** **Construction Management**

## **Connection to 4-Year University**

Create new 2+2 agreement with Thomas Edison State University (Construction BS) and modify 2+2 with Fairleigh Dickinson University (Construction Engineering Technology BS.)





## ***PATHWAY:*** **Construction Management**

### **Professional Development (PD)**

Enhance existing Construction Management professional development workshop to include elements on how to incorporate diversity, equity and inclusion (DEI) into curriculum. Also, prepare materials and deliver PD for this pathway.



# ***PATHWAY:***

## **Utilities (Constructions, Maintenance, and Operations)**

### **Connection to Community College (Credit)**

Develop Construction and Utilities Trades Certificates for credit that are stackable into the Technical Studies AAS. Update two academic certificate programs from existing RCSJ curriculum that are stackable into the Technical Studies AAS.



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## ***PATHWAY:***

**Utilities (Constructions, Maintenance, and Operations)**

### **Prior Learning Assessment for Apprenticeship Related Technical Instruction**

Evaluate Union Apprenticeship curriculum (Carpenters, Bricklayers, Ironworkers 399, Operating Engineers 825, Electricians 102 & 269) to ensure they are stackable into the Technical Studies AAS.

# ***PATHWAY:***

## **Utilities (Constructions, Maintenance, and Operations)**

### **Prior Learning Assessment**

Evaluate and update the trade incumbent worker PLA model for credit stackable into the Technical Studies AAS for each of 5 Unions (Carpenters, Bricklayers, Ironworkers 399, Operating Engineers 825, Electricians 102 & 269).



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## ***PATHWAY:***

**Utilities (Constructions, Maintenance, and Operations)**

### **Connection to 4-Year University**

Modify existing 2+2 agreement with Rowan University for the Technical Studies AAS to articulate to the Construction Management BA.



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# ***PATHWAY:***

## **Utilities (Constructions, Maintenance, and Operations)**

### **Adult Learners**

Evaluate and align existing non credit Cumberland County Technical Education Center courses and certificates for credit stackable into the Technical Studies AAS. Align Gloucester County Institute of Technology's pre-apprenticeship programs for credit stackable into Certifications and Technical Studies AAS.



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## ***PATHWAY:***

**Utilities (Constructions, Maintenance, and Operations)**

### **Adult Learners**

Develop contextualized learning for adult English language learners and high school equivalency programs at Gloucester County Institute of Technology and Cumberland County Technical Education Center.

# ***PATHWAY:***

## **Utilities (Constructions, Maintenance, and Operations)**

### **Adult Literacy**

Develop non credit Utilities (Clean Energy and Water/Waste- water) Principles course for adult literacy learners to prepare for entry or re-entry into the workforce.



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## ***PATHWAY:***

**Utilities (Constructions, Maintenance, and Operations)**

### **Professional Development**

Develop a train- the-trainer program for experienced technical/trade professionals to prepare them to teach non-credit Career and Technical Education programs. Also, prepare professional development resources and workshops.





***GIVE US YOUR  
FEEDBACK***





# ***Questions:***

- **How can we better connect industry to education and training pathways to ensure that pathways prepare students/adult learners to be the best Construction employees to meet the industry workforce need?**
- **If you could share one big idea to align education and workforce development training to build an innovative workforce in New Jersey, what is that one big idea?**



# **VIDEO TESTIMONIAL**



**Marjorie St. Elin**

Diversity, Equity & Inclusion  
Regional Manager / Project  
Manager (Turner  
Construction Company)



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# **CONSTRUCTION** Industry Panel



**Jason Cardenosa**

Director, Talent &  
Employee Services  
(J. Fletcher Creamer  
& Son, Inc.)



**Jenn Thoman**

Chief Academic  
Officer (Operating  
Engineers 825)



**Kathryn Zielinski**

Business Support Specialist –  
Clean Energy Jobs Program  
(PS&G | Renewables  
& Energy Solutions)



# *REGISTER FOR* *Upcoming Collaboratives*



Additional Dates From  
October 19 Through  
November 16, 2022

## Infrastructure & Energy Collaborative

November 2, 2022 | 10 AM - 1 PM

Hosted By: Atlantic Cape Community College

Location: Atlantic City Convention Center

Networking Lunch



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# THANK YOU

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