Academia/Industry Collaborations to Enhance Workforce Development and Create Micro-credentials

Evelyn Brown, NC State University

Zack Hubbard, Rowan-Cabarrus Community College

Aimee Durham, Rowan-Cabarrus Community College

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Presentation Outline

- ❑ Presenter Bios
- ❑ NSF ATE Coordination Network Background
- ❑ Academia/Industry Collaborations – Best Practices for Workforce Development (Q & A)
- ❑ Micro-Credentials Discussion
- ❑ Cyber4RAM Badge: Development + Demonstration + Sharing
- ❑ Helping Manufacturers Understand Micro-credentials

Presenter Bios

- ❑ Evelyn Brown
- ❑ Zack Hubbard
- ❑ Aimee Durham

NSF ATE Coordination Network

TRACKS-CN

- The Robotics/Automation and Cybersecurity Knowledge Sharing Coordination Network
- Includes 11 community colleges and 8 MEPs across seven states
- Also includes ARM, MxD, and NICE
- Goal = develop technician education/training at the convergence of robotics/automation and cybersecurity
- Highlights of grant work (events & collaborations)

Academia/Industry Collaborations

- ❑ Connect with local Manufacturing Extension Partnership
- ❑ Create win-win opportunities
- ❑ Start with small “asks” and build
- ❑ Know your county/region
- ❑ Engage with multiple employees from a company
- ❑ When possible, track data to document impact

Q&A

Academia/Industry Collaborations

Micro-credentials

- Audience Response – What do we know about micro-credentials – a brief quiz

- Scan the QR code to vote or go to **https://forms.office.com/r/fV2iHUmQYy**

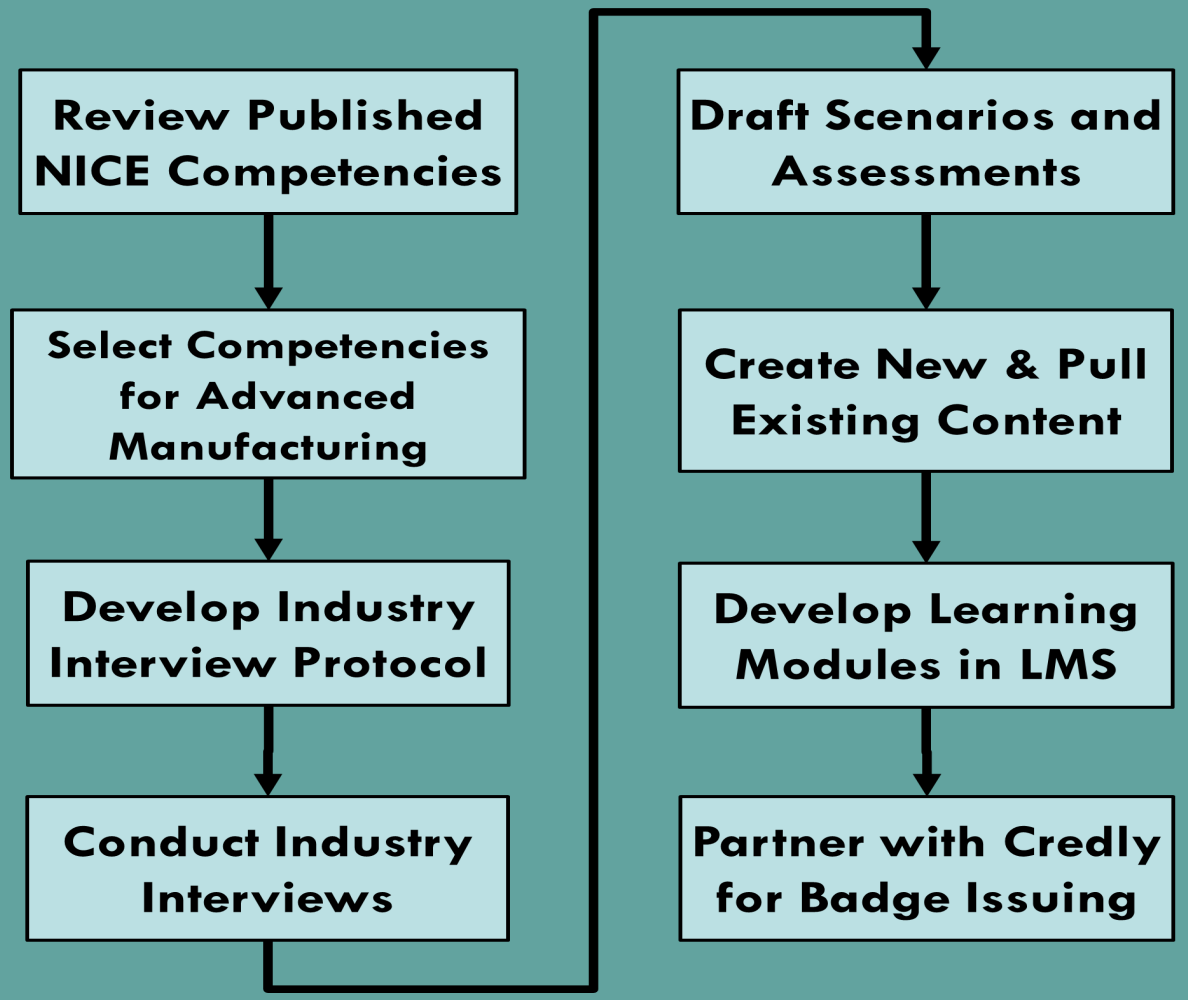
Micro-credentials

- ❑ What are they?
- ❑ How are the valued?
- ❑ Who are they for?

Cyber4RAM Badge Development

- Goal: expose technicians to content at the convergence of robotics/automation/mechatronics (RAM) and cybersecurity
- With manufacturing's shift to connected machines, their cyber-physical systems need protection
- Digital badges enable training content to be delivered outside of classroom setting and at the learner's pace

Cyber4RAM Badge Development



Cyber4RAM Badge Competencies

1. Asset and Inventory Management
2. Computer Languages
3. Data Privacy
4. Data Security
5. Digital Forensics
6. Identity Management
7. Incident Management
8. Infrastructure Design
9. Physical Device Security
10. Systems Integration
11. Vulnerabilities Assessment

Cyber4RAM Badge Demonstration

Cyber4RAM Badge Sharing

- Faculty can utilize our learning management system (Canvas Instructure) to guide students through earning the badge by having them create accounts here:

https://ncmep.org/tracks-cn/badge/

- We can provide a SCORM package of the complete badge content for use in your own LMS. (email **zackary.hubbard@rccc.edu**)

Helping Manufacturers Understand Micro-credentials

- Upcoming Webinar: Cyber Awareness for Manufacturers, Thursday October 12th at noon
- Automation Conversation Events
- The project seeks to emphasize the value of micro-credentials as a skill add-on to an existing degree or other credential.

Contact Information

evelyn_brown@ncsu.edu

zackary.hubbard@rccc.edu

aimee.durham@rccc.edu

https://ncmep.org/tracks-cn/