Total: $549,730
Project Period: 10/01/2018 to 09/30/2021
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COLUMBUS STATE
COMMUNITY COLLEGE

NSF

Project Overview

Columbus State Community College (CSCC), in collaboration with Lorain County Community College (LCCC), and industry, state, and education partners will advance experiential work-based learning programming and outreach in order to increase the supply of qualified advanced manufacturing technicians. Work-based learning is not a new concept in education, however there is no existing coordination in Ohio that assembles and disseminates best practices and innovations in that space. Due to the strength of the industry in Ohio, and the program designs already in place at CSCC and LCCC in manufacturing occupations, the EARN Project will be uniquely focused on applications for manufacturing. This project will address the need for technicians in the manufacturing sector. By 2026, 3.5 million U.S. jobs will be needed in advanced manufacturing and 2 million are expected to go unfilled. EARN responds to current constraints on training in manufacturing and creates a scalable and replicable model. This model innovatively replicates specific, selected practices from successful programs: CSCC's Modern Manufacturing Work Study, LCCC's TRAIN OH, RAMTEC mobile equipment, Kentucky FAME, FAST Innovation Design, and SOIL immersive experiential learning. It will create a new framework for building future programs that are responsive to workforce development in Ohio, as well as the rest of the nation.

The following **three primary themes** will produce aligned deliverables as products of the project:
1. **Theme 1: Work-Based Learning Model**
   Deliverable 1: Create a work-based learning menu collecting best practices and providing educational and promotional tools for companies, educators, and students, with sharing through a work-based learning symposium.
2. **Theme 2: Statewide Collaboration with Industry and College Network**
   Deliverable 2: Statewide network for advanced manufacturing models between community colleges.
   Deliverable 3: Industry leadership team for developing public-private partnerships.
3. **Theme 3: Outreach and Communications Initiative**
   Deliverable 4: Outreach and recruitment strategy for community colleges to increase the pipeline of students entering advanced manufacturing pathways.

The project provides a model for developing programs, process and partnerships to agilely repurpose staff and facilities to meet the changing needs of lightweight materials and additive manufacturing. By designing both articulated and managed design processes alongside immersive work-based learning and a professional development scaffold, the project can be replicated by other manufacturing programs. New Growth will perform the external evaluation of the EARN project. The project will lead to increased retention and recruitment into work study programs, increased employer participation, expanded faculty expertise, increased number of underserved students enrolled in manufacturing pathways, and increased consistency in impact measures and systems that capture data.

Industry Partners:
General Plug & Manufacturing Co.
Honda Logistics North America
Humanetics
Rapid Prototype & Manufacturing
SMART Microsystems Ltd.
Stanley Electric
Thogus
Worthington Industries

Education Partners:
C-TEC
Eastland-Fairfield Career Center
Lorain County JVS
Marysville Schools
Sinclair Community College
The Ohio Manufacturing Institute

Other Partners:
Columbus 2020
Team Neo
The Ohio Manufacturers Association
America Makes
LIFT
MAGNET
NextFlex