PENNSYLVANIA COLLEGE OF TECHNOLOGY

FUTURE MADE BY HAND

Combating the Skills Gap in Advanced Manufacturing

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Overview

What is it?

Industry Needs

NSF Support

Strategies

Advanced Manufacturing: Myth

Advanced Manufacturing: Reality

- Milling and Turning
- CNC Programming/Operation
- Robotics and Automation

An Industry in need…

Current shortage: 5-10%

Expected Growth: 10%

+ Retirements = 3.5M job openings in the next 5 years

Researchers estimate 2M will go unfilled!

U.S. Manufacturing is the 8th largest economy in the world

(nam.org)

NSF: Advanced Technological Education (ATE)

NSF Award: 1902379 - $685,297

Penn College's Strategies

1. Develop a 1-year CNC certificate program that includes technologically advanced skills demanded by industry
2. Develop Academic Pathways
3. Provide Credit for Registered Apprenticeships
4. Combat the Myths of Manufacturing

Combat the Myths of Manufacturing

- **Bolster School Counselor awareness of the industry and career opportunities**
- **Host Student Symposium on Campus**
- **Host Summer Externship Camp for teachers/school counselors**
  - 1 week event at Penn College
  - Learn basic mill, lathe, and CNC operations
  - Tour local industry sites
  - Earn act 48 credit*
  - Construct a robot using additive and reductive manufacturing techniques to take home
  - July 19-24, 2020

But wait, there's more

- **Externship camp is fully funded**
  - Hotel
  - Travel stipend (mileage)
  - Meals
  - Supplies
- **$1,000 stipend for participating**
- **$1,000 stipend for implementing a lesson in the home school**
- **Open to 15 participants in summer 2020; 15 more in summer 2021.**
- **E-mail bwebb@pct.edu for application materials (available soon)**

QUESTIONS?