

Advanced Manufacturing The Talent Challenge

**SUNY Ulster in Partnership
with
The Council of Industry**

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Initiatives

Playing Field

Facts

- Finding the right talent is now harder than it was in 2018
- 77% of surveyed manufacturers say they will have ongoing difficulties in attracting and retaining workers
- Diversity, equity and inclusion (DEI) is a growing influence on workforce trends and represents both a challenge and a potential solution

Source: Manufacturing Institute based on report by Deloitte, May 2021

Playing Field

Facts

- 8 in 10 job titles with the highest job postings were for entry level and mid-level job titles requiring a post-secondary certificate
- Warehouse and distribution jobs are increasingly competing for manufacturing workforce share
- Manufacturing sector plays a foundational role in our nation's economy

Source: Manufacturing Institute based on report by Deloitte, May 2021

What's New In Academia?

Increase in the number of adult students who are looking to work while attending college

Micro-Credentials

Serve as an important bridge between higher education and business and industry

Apprenticeships

Trained, skilled workers are important to keep your company moving forward. Being part of an apprenticeship program may reduce hiring costs by providing a streamlined channel to bring on new workers, or upskill existing workers. When working with apprentices, companies report higher productivity, less turnover, and substantial return on investment.

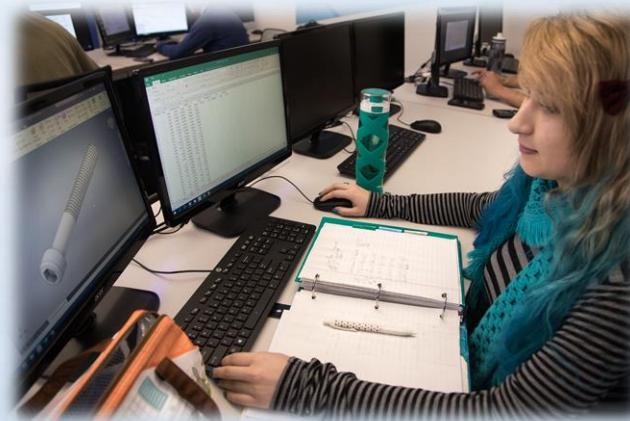
Why Micro-Credentials?

- Learners find breaking a degree program down into smaller sections of curriculum that stack toward a degree is a preferred method of learning
- A terrific tool to support professional development



Micro-Credentials

Pre-Apprenticeship
CNC Programmer
CNC Operator
CAD
Basic Engineering



CNC Operator Micro-Credential

This Micro-Credential consists of four courses which include:

Fundamentals of Metrology – starts February 22nd

Geometric Dimensioning and Tolerancing – offered fall 2022

CNC Operator I – starts February 28th

Advanced CNC Operator – offered as needed



Pre-Apprenticeship Micro-Credential

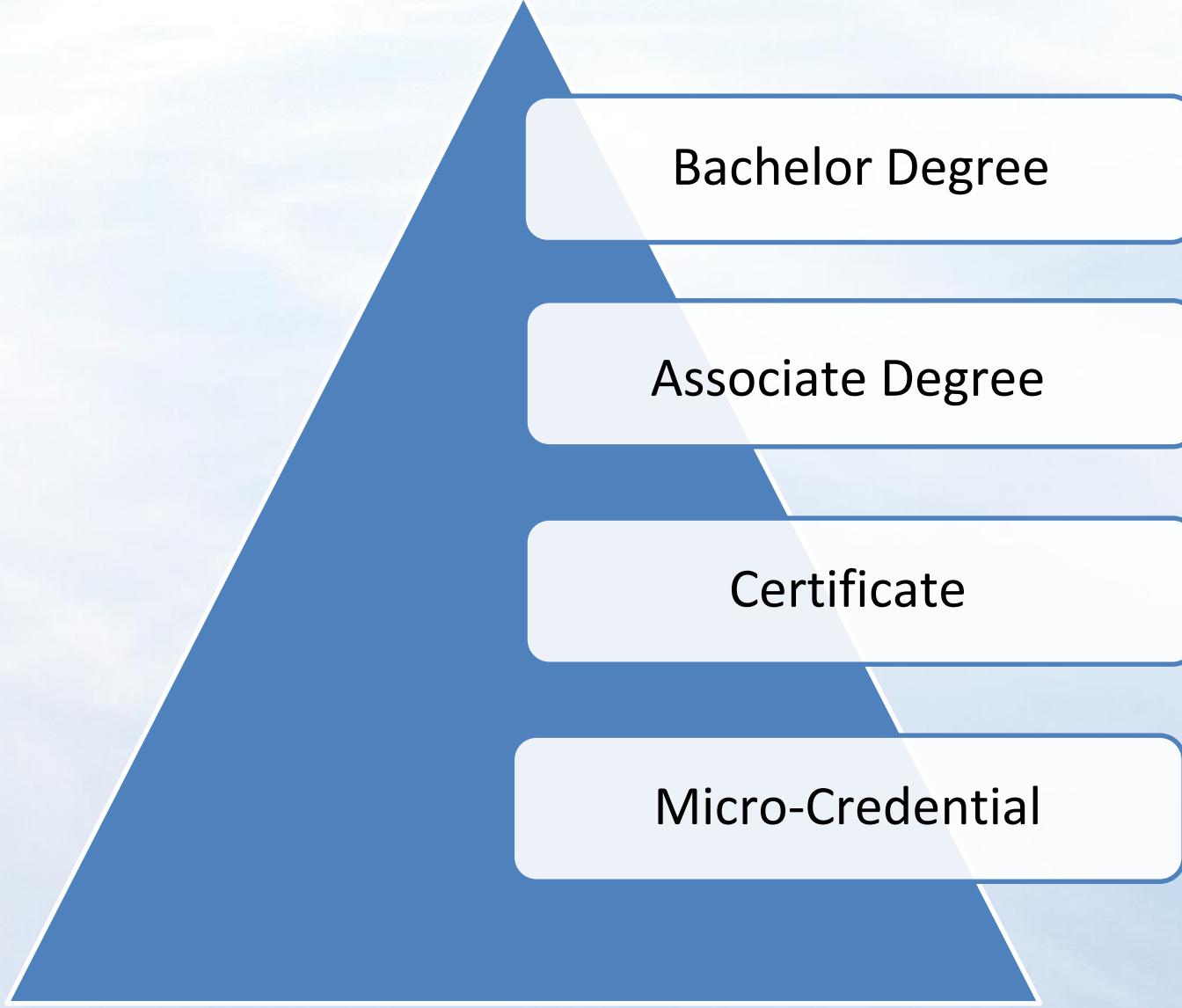
This Micro-Credential consists of two courses which include:

Fundamentals of Metrology – starts February 2022

Certified Production Technician – starts February 2022



Micro-Credentials can be stacked towards educational goals



Bachelor Degree

Associate Degree

Certificate

Micro-Credential

Why Apprenticeships?

- Can motivate current employees – employer invests in employee
- Resources available to help recruit talent
- Apprentices receive \$5,000 towards Related Instruction
- Creates skilled manufacturing pipeline
- Partnership between DOL, SUNY and COI



Apprenticeship Program

COI supports Advanced Manufacturing Apprenticeships

Machinist (CNC), Electro-Mechanical Technician, Electronics Technician, Maintenance Mechanic, Quality Assurance Auditor, Toolmaker, Welder and Industrial Manufacturing Technician



Pre-Apprenticeship Program

Pre-apprenticeship programs play a valuable role in preparing qualified entry-level workers for apprenticeship careers while contributing to the development of a diverse and skilled workforce.

Certified Production Technician (45 hrs.) – starts February 2022

Fundamental Concepts of Metrology (45 hrs.) – starts February 2022



Becoming a Pre-Apprentice

Students that are underemployed or unemployed can get trained for an Advanced Manufacturing Career by registering for a Pre-Apprentice Program.

Students currently working in a facility that has an Apprentice Program that need training before they enter into the program qualify for training under the Pre-Apprentice Program

Students qualify for a Pre-Apprentice Program receive \$500 worth of training under a SUNY grant



Spring 2022

SUNY Ulster offers both credit-bearing and non-credit bearing related instruction

Coming this Spring

Certified Production Technician (CPT)

CNC Operator I: Theory and Lab

Fundamental Concepts of Metrology

Fundamentals of Electricity

AutoCAD

Digital Logic

Engineering Programming

Engineering Graphical Analysis

Engineering Materials

Engineering Dynamics

Call to Action

Next Steps

Refer applicants that you do not hire to SUNY Ulster for training

Let COI/SUNY Ulster know your needs – current and projected

Let us train your current workers

Provide internship opportunities and Applied Learning experiences to students

Offer to speak to classes or offer a tour of your facility

Employer Needs and Obstacles