

# Nanotechnology Collaborative Infrastructure Southwest

**NCI**  
Southwest



## NNCI Annual Meeting

25 - 27 October 2023



Trevor Thornton – Director

Inès Montañó - PI at NAU, Quantum Materials

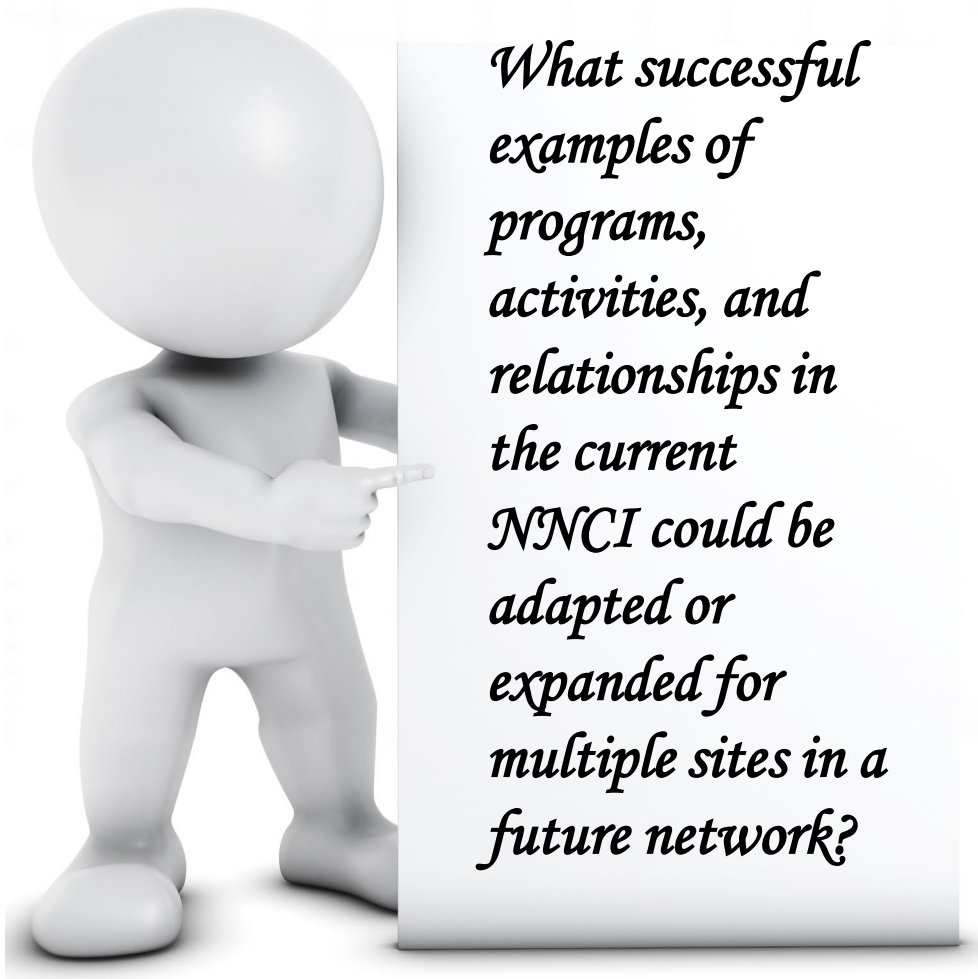
Jameson Wetmore - Deputy Director

Gabe Montañó – Nano-Biomaterials

Mariana Bertoni - Renewable Energy



Award # ECCS 2025490 |



*What successful examples of programs, activities, and relationships in the current NNCI could be adapted or expanded for multiple sites in a future network?*



## Awards



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Award Abstract # 2229983

## Microelectronics and Nanomanufacturing Partnership for Veterans

<b>NSF Org:</b>	<a href="#">DUE</a> <a href="#">Division Of Undergraduate Education</a>
<b>Awardee:</b>	PENNSYLVANIA STATE UNIVERSITY, THE
<b>Initial Amendment Date:</b>	July 27, 2022
<b>Latest Amendment Date:</b>	July 27, 2022
<b>Award Number:</b>	2229983
<b>Award Instrument:</b>	Continuing Grant



## Microelectronics and Nanomanufacturing Partnership for Veterans

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### ABSTRACT

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This project will provide educational opportunities for military personnel, veterans, and family members to gain the knowledge, skills and abilities (KSAs) needed to enter the nanomanufacturing workforce. Members of the collaborative include 2-yr and 4-yr institutions, microelectronics companies, and the Global SEMI Trade Association.

Led by Penn State with partners at Norfolk State University, **UC San Diego**, **Georgia Institute of Technology**, and **Arizona State University**.

2-year schools include Tidewater Community College, Southwestern College, Rio Salado College, and Georgia Piedmont Technical College

# New Technician Training Program for Veterans



**PennState**  
College of Engineering

**CENTER FOR NANOTECHNOLOGY  
EDUCATION AND UTILIZATION**

**RIO SALADO COLLEGE**  
A MARICOPA COMMUNITY COLLEGE

**ASU** Arizona State University

## Microelectronics and Nanomanufacturing Certificate Program

**Get the training you need to join a growing workforce!**

Designed specifically for active U.S. military personnel, veterans, and their immediate family, the Microelectronics and Nanomanufacturing Certificate Program (MNCP) helps meet the needs of a growing microelectronics and semiconductor workforce. This free program combines live-streamed lectures with intensive, hands-on-site training in a cleanroom environment—as found in a semiconductor fabrication facility.



### Course Information

February 6 - April 28, 2023

- Live-streamed lectures with Penn State at ASU, Tempe Campus Physical Sciences Building, room PSH 130, Mon - Fri, 11 a.m. to 1 p.m. ET.
- In-person cleanroom laboratory classes at ASU, Tempe Campus Engineering Research Center, Tues and Thurs, 1:30 - 4:30 p.m. local time.



### Gain the Skills You Need to Succeed

Students enrolled in the program will learn the principles and practices they need to succeed when they enter the semiconductor industry:

- Safe equipment operation/maintenance
- Environmentally friendly materials handling
- Health and safety
- Various semiconductor processing methods



### Industry Opportunities

Examples of industry job titles in microelectronics and semiconductor manufacturing include a variety of technician positions in:

- Equipment (Maintenance) Technician
- Facilities Technician
- Logistics Technician
- Prototype Assembler
- Power Electronics Lab Technician
- Engineering Technician
- Facilities Maintenance Mechanic
- And more!



### Learn More

Scan the code to learn more about our course and industry partners.

To apply, contact  
Lynn Barth (Lynn.Barth@riosalado.edu)  
(480) 377-4016



### Earn Certificates

- Microelectronics and Nanomanufacturing Certificate of Completion from the Center for Nanotechnology Education and Utilization at Penn State
- ASTM International Health and Safety in Nanotechnology Certificate
- ASTM International Nanotechnology Workforce Characterization Certificate
- ASTM International Workforce Certificate for Nano Workforce Fabrication and Related Infrastructure

Zero participant costs

\$500 stipend

Advertised on local radio

Oversubscribed!

## Veterans are:

- Motivated
- Tech savvy
- Hands-on
- .....



## How to scale and make it sustainable:

- Industry sponsorship via student stipends
- Build lower-cost teaching cleanrooms
- Adapt curriculum to local needs
- Combine with REU/internship programs
- .....

# Q&A