The Nanomanufacturing Certificate Program (NCP) helps equip military veterans, as well as transitioning military personnel, with skills in nanotechnology-based manufacturing and new product development—skills companies need to move life-changing nano-scale applications out of the laboratory and into the marketplace.

Students enroll in Tidewater Community College (TCC) in Virginia, with lectures hosted and webcast by Penn State’s Center for Nanotechnology Education and Utilization (CNEU) instructors, and a hands-on component provided by the Norfolk State University Cleanroom Facility.

Nanomanufacturing Certificate Program
Your pathway to advanced technology skills

The Nanomanufacturing Certificate Program (NCP) helps equip military veterans, as well as transitioning military personnel, with skills in nanotechnology-based manufacturing and new product development—skills companies need to move life-changing nano-scale applications out of the laboratory and into the marketplace.

Students enroll in Tidewater Community College (TCC) in Virginia, with lectures hosted and webcast by Penn State’s Center for Nanotechnology Education and Utilization (CNEU) instructors, and a hands-on component provided by the Norfolk State University Cleanroom Facility.

Have a Hand in Creating Your Future

As a NCP student, you will receive the most current, hands-on exposure available in nanofabrication manufacturing and characterization technology. You will learn a new skill set, making you uniquely qualified to work in the cross-disciplinary field of nanotechnology. These skills will also prepare you to obtain the American Society for Testing and Materials (ASTM) International stackable nanotechnology certificates.

The skill set, established by the Nanofabrication Manufacturing Technology (NMT) National Advisory Council, includes:

- Basic nanotechnology environmental, health, and safety (EHS) awareness
- Equipment and processing foundation skills
- Patterning
- Fabrication
- Characterization
- Professional skills

Benefits

Hands-on training with the latest nanomanufacturing and characterization equipment.

Exclusive access to a powerful job network through receiving industry announcements and job postings.

Continued Education credits by TCC and Nanomanufacturing Certificate issued by CNEU.

Preparation to take the ASTM stackable nanotechnology certificates.

Learn more about what students, employers, and educators say about the future of nanotechnology.

View our video: tinyurl.com/FutureOfNMT

Applicants should have a basic understanding of high school physics and chemistry.
Nanotechnology is Driving a Revolution

Advanced manufacturing and new product development is changing the way we live and learn on our planet—and the way we may solve some of our biggest challenges.

<table>
<thead>
<tr>
<th>Detect and clean up hazardous chemicals in the environment</th>
<th>Enable medical devices that can eliminate the need for surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create smaller and faster electronic components</td>
<td>Make sunscreen and cosmetics more effective</td>
</tr>
</tbody>
</table>

Create your own nanotechnology-driven career in virtually any industry.

“[This course] was the sole catalyst for both my academic and industry careers. I continue to utilize information gained during that time on a regular basis. The hands-on skill set was vital for a smooth transition to both graduate school and industry.”

Zachary Gray, Summer ’07, Nanoscience Instruments

“We haven’t tapped into all of the possibilities of what we can use nanomaterials for and we haven’t created all of the possible nanomaterials yet, so there are going to be exciting new companies, exciting new products, and exciting new services … the nanotechnology industry is going to grow and grow.”

Peter Kazarinoff, Portland Community College

Nanomanufacturing Certificate Program


To learn how to pursue this certificate in nanotechnology and for full course descriptions and eligibility requirements, visit cneu.psu.edu/ncp.

FOR MORE INFORMATION:

Christopher Blow
Interim Director
Military Strategic Programs
Center for Military and Veterans Education
Tidewater Community College
cblow@tcc.edu

Susan Barger
Operations Manager
CNEU, Penn State
dsb24@psu.edu

“[This course] was the sole catalyst for both my academic and industry careers. I continue to utilize information gained during that time on a regular basis. The hands-on skill set was vital for a smooth transition to both graduate school and industry.”

Zachary Gray, Summer ’07, Nanoscience Instruments