

**NEATEC's  
Soldier for Life- Transition Assistance  
Program (SFL-TAP)**

**Advanced Manufacturing Technician  
Training Project**

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# SUNY Polytechnic hosts the National Science Foundation's Northeast Advanced Technological Education Center (NEATEC)

**Mission: Provide a skilled workforce pipeline for the semiconductor, nanotechnology industries and advanced manufacturers in New York/Western New England**

**NEATEC works with employers to assess workforce skills needed and then partners with community colleges and four year institutions to create/disseminate curriculum to support these needs**

# The Skills Gap in U.S. Manufacturing 2015 and Beyond:

Over the next decade, nearly **3.5 million**  
**manufacturing jobs will be needed** and it is  
expected that **2 million** will go unfilled due to the skills gap.

*According to a Deloitte analysis done in 2015, based upon data from U. S. Bureau of Labor Statistics and Gallup Survey*

## **WHY? What is contributing to the talent shortage of skilled production workers?**

1. 2.7 million baby boomers will be retiring (22% of existing workforce)
2. Strength of the economy
3. Attractiveness of the industry- perceptions
4. Increase in skilled positions
5. Loss of embedded knowledge due to movement of experienced workers

*According to a Deloitte analysis done in 2015, based upon data from U. S. Bureau of Labor Statistics and Gallup Survey*



## **Soldier for Life-Transition Assistance Program:**

- Collaborative effort: DoD, DOL, VA, SBA, Dept. of Education and Office of Personnel Mgmt.
- Helps soldiers find jobs, skills BEFORE leaving military
- Counselors start working with soldiers 18-24 months prior to separation.
- Provides career development classes, individual counseling, employment/educational opportunity info

**271 Fort Drum soldiers separate from service each month!**

(per SFL-TAP office 10/17)

Nationally, DoD estimates **230,000-245,000** enlisted service members and officers will separate annually from the military through 2019

(per US Government Accountability Office 2014)



**Manufacturers** *need* skilled workers and **WANT** to hire Veterans

**Soldiers** transitioning to the civilian workforce *need* jobs that will support their families

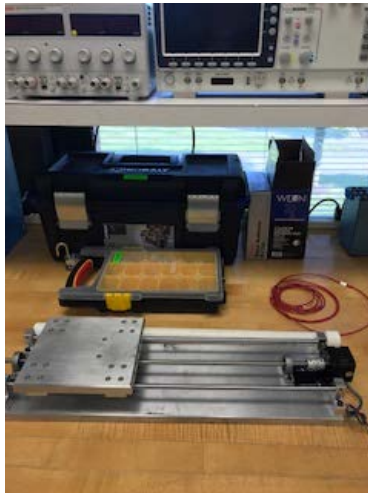
## NEATEC's Advanced Manufacturing Technician Training Connects These Groups





## NEATEC's Advanced Manufacturing Technician Workshop Series:

- 56 Hours of training- 48 Hours hands on, 8 hours online
- Topics- Advanced Manufacturing Practices, Hydraulics/Pneumatics, Mechatronics
- Field trip to silicon chip foundry
- Manufacturers invited to meet with soldiers throughout training
- Curriculum developed and delivered by community college partner





## Efforts To Engage With Base:

- Started meeting with Transition Services personnel Dec. 2015
- Hosted Connecting Vets to Manufacturing Jobs Workshop (June 2016)
- Advanced Mfg Workshop Series - Pneumatics & RF (July 2016)
- Several workshops scheduled, cancelled by Base (Joint trg. exercises, block leave, leave denials...)
- Expanded series of classes & **marketed directly to soldiers/COs**
- Advanced Manufacturing Technician Workshop Series- Advanced Manufacturing Practices, Hydraulics/Pneumatics, Mechatronics, Field Trip (August 2017)
- Employers invited to meet with soldiers at each training:

**GlobalFoundries, Norsk Titanium, TEL, Indium Corporation, Bartell, Pratt & Whitney, SUNY Poly's Si chip foundry**

- Hosted Manufacturing Day Expo- 65 Exhibitors

**MANUFACTURING DAY  
ENGAGING POTENTIAL EMPLOYERS WITH SOLDIERS**



# Backup Slides...

## Advanced Manufacturing Technician Workshop Series

### Advanced Manufacturing Practices (AMP)

**Tues. 1 August**

One full day of hands on training at Mohawk Valley Community College (MVCC) labs in Utica. This workshop is an overview of tools, systems, and concepts used in advanced manufacturing. *Note: AMP is a pre-requisite course for Mechatronics Workshop*

### Mechatronics

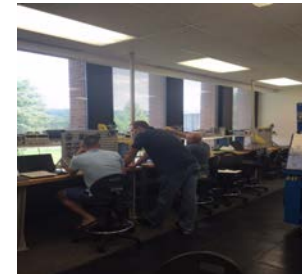
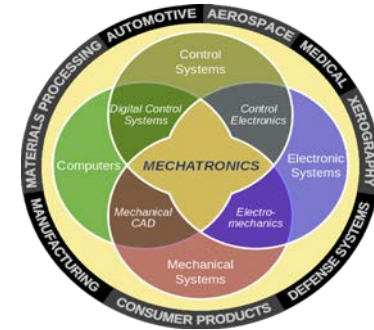
**Wed./Thurs./Fri. 2,3 & 4 August**

Three full days of hands on training at MVCC labs. Soldiers will learn about industrial automation, PLC's (Programmable Logic Controllers), robotics and other related topics used in advanced manufacturing. Utica area advanced manufacturers will be invited to meet with soldiers during lunch to discuss employment opportunities

### Hydraulics/Pneumatics Technology

**Mon./Tue. 7 & 8 August**

Two full days of hands on training at MVCC labs. This training will familiarize soldiers with safety procedures for control circuits, interpretation of circuit drawings, analysis, diagraming and creation of simple hydraulic/pneumatic systems and troubleshooting basic problems. Utica area advanced manufacturers will be invited to meet with soldiers during lunch to discuss employment opportunities. *Note: Prior to arriving on campus, soldiers will complete online modules to prepare them for the lab exercises.*



## Tour of NanoTech Complex

Wed. 9 August

Soldiers will visit SUNY Polytechnic's College of Nanoscale Science & Engineering in Albany. More than 4,000 scientists, researchers, engineers, students, faculty and staff currently work at this facility. Some of the resident companies include: IBM, Intel, GlobalFoundries, Samsung, TSMC, Toshiba, Applied Materials, Tokyo Electron, ASML, and Lam Research. Soldiers will observe technicians working on the manufacturing floor and will have the opportunity to talk with supervisors about the job requirements, expectations and typical work assignments. Post tour, representatives from on-site companies will be invited to meet with soldiers to discuss job opportunities.





# INDUSTRY BRIEFS SCHEDULED

What Is Advanced Manufacturing? Are There Jobs In New York State?  
Do I Have The Right Skills To Apply? Is Training Available?

<b>30 MAY 2017</b>	<b>1000-1130</b>	<b>B2-1</b>
<b>30 MAY 2017</b>	<b>1300-1430</b>	<b>B2-1</b>
<b>13 JUNE 2017</b>	<b>1000-1130</b>	<b>A2-88</b>
<b>13 JUNE 2017</b>	<b>1400-1530</b>	<b>A2-88</b>



Northeast Advanced  
Technological Education Center



# NEATEC Workshops Offered:

Advanced Manufacturing Practices  
Mechatronics

Photovoltaic Nanofabrication

Pneumatics Technology

Radio Frequency

Hydraulics Technology

Basic Vacuum Technology

Advanced Vacuum and Plasma Processing



# Under Development:

Integrated Photonics

LED Lighting Technology

Power Electronics

Statistical Process Control

## Common Military Occupational Specialties (MOS) at Drum

MOS	TOTAL #	BRANCH
11B	1393	Infantry
11C	163	Infantry
12B	138	Combat Engineer
13B	229	Canon Crewmember
13F	140	Fire Support
19D	165	Cavalry Scout
25U	151	Signal Support Specialist
31B	215	Military Police
35F	113	Intel Analyst
68W	282	Health Care Specialist
88M	193	Motor Transport Operator
91B	333	Wheeled Vehicle Mechanic
92A	208	Automated Logistical Specialist
92F	141	Petroleum Supply Specialist
92G	147	Food Service Specialist
92Y	139	Unit Supply Specialist

*Source: SFL-TAP June 2016*

Other Specialties at Drum:

**Engineers** (includes General & Operations Managers and Industrial Safety)

**Field Artillery** (includes Electro-Mechanical Techs)

**Air Defense** (includes Operating Engineers & Electrical and Electronics Repairers)

**Aviation** (includes Mechanics, Engine/other Machine Assemblers, Machinists, Welders, Electronics Engineering Techs, Avionics Techs, Sheet Metal Workers...)

**Missile System Repairer** (includes Computer Operators, Electronics Engineering Techs)

**Vehicle Mechanics** (includes Electrical Eng. Techs, Electronic and Electrical Repairers, Industrial Machinery Mechanics)

Most enlisted service members do not have college degrees when they join. According to the DoD, in 2008 when a high concentration of US troops were deployed overseas, 52 percent of enlisted service members were 25 years old or younger. Only 4.5% had a bachelor's degree. *US DoD 2008 Demographics Report*

## 10 Reasons Why Manufacturers Should Hire Vets:

1. They accelerate the learning curve- used to learning new things.
2. Proven leaders
3. Understand the importance of teamwork
4. Promote diversity and inclusion
5. Perform well under pressure
6. Respect procedures
7. Attuned to global and technological trends
8. Integrity- know how to work and can be trusted with IP (security clearances)
9. Aware of health and safety standards
10. Triumphant in the face of adversity

*Source: Department of Labor*