



## NTAP - NTMA Tri-State Apprenticeship Program Occupation: MACHINIST (CNC)



- NTAP is a **REGIONAL** flexible, **competency-based APPRENTICESHIP** training program, unlike the traditional 4-year 8,000-hour time and knowledge-based apprenticeship system.
- **Machinist (CNC)** Apprenticeship program includes 13 NIMS (National Institute for Metalworking Skills) Credentials
- Combines **job-related technical instruction** with **structured on-the-job learning from an assigned mentor**
- Includes PA (Bucks, Montgomery, Delaware, Chester, Philadelphia, Berks), South Jersey (Camden, Burlington, Gloucester), DE (New Castle/Wilmington)
- Administered by the Department of Labor's Office of Apprenticeship (State)- **centrally-sponsored** by the Philadelphia Delaware Valley Chapter (PDV) of the National Tooling & Machining Association, managed by third party: Choice Careers
  - Individual manufacturers **DO NOT** have to register their own apprenticeship programs/no need for extra staff to manage their programs.
- A systematic, manufacturer-designed, **STRUCTURED plan (Standards)** designed for mentors and apprentices
  - For employers seeking to build a highly-skilled workforce/Manufacturers invest in incumbent workers and vet/hire new employees with focus on competency and future growth.
  - Current Career and Tech Schools align curriculum to NIMS, jump-starting high school graduates towards employment/apprenticeship.
  - Opportunity for workers seeking high-paying jobs/Apprentices receive **incremental wage increases/** leads to having **portable** industry-issued, nationally-recognized credentials that certify occupational proficiency/ May already have NIMS certifications and now have path to Journeyman status.
- NIMS Credentials for Machinist Apprenticeship include sets of skills related to precision manufacturing process:
  1. Measurement, Materials & Safety
  2. Job Planning, Benchwork & Layout
  3. Drill Press I,
  4. Manual Milling I
  5. Manual Turning I
  6. Manual Turning Between Centers
  7. CNC Milling Operations I
  8. CNC Turning Operations I
  9. CNC Milling Programming Set-up & Operations I
  10. CNC Turning Programming Set-up & Operations I
  11. CAM I
  12. CNC Milling II
  13. CNC Turning II
- NIMS provides industry skill standards, written and practical testing. Includes a career ladder (stackable credentials) with 4 industry career rungs.
  - Machinist Apprentice
  - Entry Level Machinist
  - CNC Operator
  - Entry Level CNC Machinist
  - There is no set time require to earn all 13 credentials. It is based on the student's ability to fully learn the skills for each credential through classroom and online instruction, and structured On-the-Job-Learning.
- Choice Careers coordinates/administers class schedules, apprentices' data, and program training; in conjunction with all the regional Community Colleges, County Technical Schools, Manufacturing Alliances and regional manufacturers.
  - Classroom learning offered during the day and night. Several classes will be offered online from NTMA U,
  - Information and course schedules will be on [www.ntmaphilly.com](http://www.ntmaphilly.com) by end of 2016.
  - Some schools will be providing direct NIMS credentialing with hands on training. Some will only provide classroom courses which would require shops to participate with the hands on training, with support from the program managers.
  - Advisors and career coaches available to design Personal Education Plans/Credit for Prior Learning is available.
  - **Articulation agreements** between certain programs and 2- and 4-year colleges available/Apprentices can continue their education past an apprenticeship through community colleges and 4-year institutions. Current program is ranging from 20 - 30 college credits. An A.A.S is 60 credits. Most of the remaining courses are general education requirements.
- **Current Status:**
  - NTAP launched its PILOT "college-level" course at Bucks County Technical High School in Sept. 2016 with five apprentices
  - Pending PA State Certification Registered Apprenticeship program (Nov. 2016)
  - Other PA and NJ sites will follow in 2017. NJ will also submit an application for their state apprenticeship certification.
  - Next apprenticeship programs in line: Tool & Die Machinists and Industrial Maintenance Technicians
  - Pipeline (Pre-Apprenticeship) Programs to be replicated throughout region similar to programs in Bucks County Community College, Delaware County Community College and Camden County Community College.
  - NTMA will eventually provide scholarships for student training and NIMS testing.