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Career Pathways Title: Manufacturing & Welding

Sector/Occupation: Manufacturing

Prosperity Zone: Northwest

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Overview

The High Country Workforce Development Board's service delivery area is located in the Northwest Mountains of North Carolina. This region spans over 2500 square miles including seven mostly rural counties within the Northwest Prosperity Zone. Following national trends, North Carolina and the High Country Workforce Development Board region have both identified manufacturing as a growth industry while currently experiencing a shortage of qualified workers to meet today's demand.

Over the course of four months of pathway planning, a wide range of partners, educators, and employers met, listened to one another's needs, developed relationships, and learned from each other about demands the manufacturing sector is currently facing. While the manufacturing sector is an active and thriving industry that plays a huge role in the economic prosperity of the region, it became apparent that there were unique challenges for the industry. Through engagement and collaboration employers and educators shared opportunities in creating a pipeline of trained workers with the necessary credentials.

The committee established three workgroups in which to address the eight evaluation criteria for Career Pathways Certification. The Workgroups were broken down as follows:

- Data Driven and Evaluation
- Employer Engagement, Collaboration and Career Awareness
- Articulation, Collaboration, Work-Based Learning and Multiple On and Off Ramps.

Each group consisted of employers, educators and key community stakeholders. In addition, each workgroup had a mixture of county representation. Below is a summary of the work that each group contributed to the application.

1. Data Driven and Data Informed

This section provides supporting evidence that the High Country's manufacturing sector is projected to grow at similar rates as is projected for the nation and our state with growth much higher than most other sectors at each of these levels. The Northwest Prosperity Zone's Top 15 Star Jobs by educational level also supports the regional and local prevalence of jobs within the manufacturing sector and above average wage levels. Many of the High Country's largest employers support manufacturing employment. Finally for job seekers that successfully complete training and receive needed credentials, wages tend to be above average for all levels of experience.

Based on feedback from local employers, the majority agree there appears to be a significant skills gap and talent shortage. Employers are having difficulties finding the right workers with the skills (both hard and soft skills) that match their hiring needs.

2. Employer Engagement

Employer engagement prior to and during this process shows strong support of the manufacturing pathway. Employers appear to have close partnerships with education and the community as evidenced by their participation in various roles related to manufacturing such as serving on advisory committees, participating in community events, serving as work based learning sites, serving on the Workforce Development Board and other school related events.

3. Collaborative

The pathway development included input from the region's manufacturing employers, local education agencies, community colleges and universities, Workforce Development Board, other industry leaders, and key community partners. Throughout the process relationships were created, partnerships were developed, and strong dialogue occurred as needs and gaps were identified. We feel that this collaboration will continue as the region continues to develop this sector.

4. Career Awareness

Career awareness activities are a strong component in the High Country region and include involvement with industry, education, partners, and NCWorks Career Centers. To assist in meeting the needs of this growing industry, regular events are held to help promote and educate youth, adults, and dislocated workers on the workforce demands and opportunities within the region. Beginning in middle school, Career and Technical Education (CTE) personnel and school guidance counselors educate students about future career paths. Students throughout middle and high schools are made aware of careers in manufacturing through guided industry tours and on-campus engagement employers.

5. Articulation and Coordination

High Country's seven county-wide educational partnership is supported by a series of articulation agreements between the schools, community colleges and local universities. Unique one-to-one articulations are in place for some of the Local Education Agencies and their respective community colleges. Career & College Promise programs allow high school students to seamlessly take community college classes for credit and complete diploma, certificate and degree programs quicker.

There are three community colleges in the seven county High Country region and they all offer a variety of for-credit and degree programs, plus diploma and certificate oriented programs. Non-credit options are available through the continuing education programs at the local community colleges, and adult participants and vocational rehabilitation clients are frequent enrollees. State Universities are rounding out the undergraduate and graduate level offerings via distance education sites and online.

6. Work-Based Learning

Manufacturing employers are enhancing their relationships with the Department of Public Instruction in the High Country's seven counties, as well as with the community colleges and NCWorks Career Centers in coordinating Work-Based Learning opportunities. Feedback from employers shows engagement between educators and manufacturing organizations with traditional career fairs, industry tours, and industry guest speakers. An inventory of affiliations between schools and employers is provided. NCWorks Career Centers located in the High Country support manufacturing professions by promoting various programs offered at the three community colleges in the region. There has been a resurgence in apprenticeships in Wilkes County with their new pre-apprenticeship program beginning this summer 2018. As a result, there is renewed interest by employers throughout the High Country region in how apprenticeships might work in various counties in the area.

7. Multiple On and Off Ramps

High Country's manufacturing pathway has entry and exit ramps for a wide variety of the population including everyone from youth to the unemployed, dislocated, as well as active duty or transitioning military service members and former offenders. In addition to employers, educators and community stakeholders, we listened to, and incorporated the ideas of, Veterans Services and Vocational Rehabilitation Services representatives. Career ladders that show educational opportunities, job options as well as salary ranges for the High Country were created, and can be used by the NCWorks Career Center staff when consulting with interested clients. A presentation on pre-apprenticeships was provided to employers and educators to assist them in understanding apprenticeship programs. The community colleges also provide professional development and custom training programs for the manufacturers in the area, along with stackable credentials that help not only prospective employees but incumbent employees as well.

8. Evaluation

High Country has chosen a framework for evaluation of the manufacturing career pathway. We have begun the data collection process to establish the baseline data levels for the 2016-2017 academic year. Data will reflect numbers related to training completers, number of students and employers participating in work based learning, and number of Working Smart completers.

Conclusion

It is through this High Country Certified Manufacturing Pathway that key stakeholders have unified, engaged and collaborated in making this application a living document to be reviewed and modified in the coming years. Through continued dialog and engagement, we feel strongly we will achieve the desired outcome: a regional increase in awareness of occupations, in addition to a quantifiable increase in skilled employees, in manufacturing professions among youth, adults and other non-traditional populations so that the High Country can keep pace with current and projected workforce needs.

1. Demand Driven and Data Informed

Local Trends

The landscape of High Country's manufacturing industry has transformed in recent years. While some of the empirical data may indicate declines in the traditional manufacturing sector, anecdotal data and what local workforce and economic development experiences have been in the region over the last several years indicates a stable growth and need for a skilled workforce.

Locally in the High Country region workforce professionals continually hear from employers of their need for qualified workers. Manufacturing in the High Country is expected to grow over 4% by 2024 with average weekly wages of \$677. Many of the largest employers in the High Country are from the manufacturing sector and have experienced growth.

Rank	Company Name	Industry	County	Employment Range
	Alleghany County			
2	Parkdale Mills	Manufacturing	Alleghany	100-249
7	Amano Pioneer Eclipse Corporation	Manufacturing	Alleghany	100-249
8	Bottomley Evergreens & Farms Inc	Natural Resources & Mining	Alleghany	100-249
9	Bottomley Enterprises Inc	Trade, Transportation, & Utilities	Alleghany	50-99
10	NAPCO	Manufacturing	Alleghany	50-99
14	Atlantic Building Components LLC	Manufacturing	Alleghany	50-99
15	Tri-State Components	Manufacturing	Alleghany	50-99
25	Parker Sales & Service Inc	Manufacturing	Alleghany	Below 50
25	Spicer	Trade, Transportation, & Utilities	Alleghany	Below 50
	Ashe County			
_	American Emergency			250 406
2	Vehicles	Manufacturing	Ashe	250-499
5	General Electric Corp	Manufacturing	Ashe	250-499

		T	1	1
9	United Chemi-Con Inc	Manufacturing	Ashe	100-249
	Leviton Manufacturing Co			
14	Inc	Manufacturing	Ashe	50-99
15	Dr. Pepper Bottling Co	Manufacturing	Ashe	50-99
18	Boondocks Brewing	Leisure & Hospitality	Ashe	50-99
		Trade, Transportation, &		
25	Aloia Enterprises Inc	Utilities	Ashe	Below 50
	Avery County			
10	Crossnore School Inc	Education & Health Services	Avery	100-249
	Mitchell County			
3	Unimin Corporation	Natural Resources & Mining	Mitchell	100-249
7	Bombardier Motor Corp Of America	Trade, Transportation, & Utilities	Mitchell	100-249
8	PRC Industries Inc	Other Services	Mitchell	100-249
10	The Quartz Corp Usa	Natural Resources & Mining	Mitchell	100-249
12	New Buck Corporation	Manufacturing	Mitchell	50-99
	·			
	Watauga County			
16	Hospitality Mints	Manufacturing	Watauga	100-249
25	Goodnight Bros Produce Co Inc	Trade, Transportation, & Utilities	Watauga	100-249
	Wilkes County			
1	Tyson Farms Inc	Manufacturing	Wilkes	1000+
8	Louisiana-Pacific	Manufacturing	Wilkes	250-499
	Corporation			
10	Tyson Poultry Inc	Manufacturing	Wilkes	250-499
13	East Coast Millwork Dist Inc	Trade, Transportation, & Utilities	Wilkes	100-249
19	Gardner Glass Products Inc	Manufacturing	Wilkes	100-249
21	The Interflex Group	Manufacturing	Wilkes	100-249
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22	Worldwide Protective Products Llc	Manufacturing	Wilkes	100-249
23	Plycem Usa Llc	Manufacturing	Wilkes	100-249
	Yancey County			
	Altec	Manufacturing	Yancey	500-999
4	Glen Raven Inc	Manufacturing	Yancey	100-249
5	Hickory Springs Mfg. Co	Manufacturing	Yancey	100-249
13	Heritage Exterior Maintenance	Construction	Yancey	Below 50
20	Parker Forest Products Inc	Manufacturing	Yancey	Below 50

The Manufacturing pathway development is also supported by new job development as cited in the March 13, 2018 SYNC Newsletter.

Governor Cooper Announces 146 New Jobs in Western North Carolina at GE Aviation

GE Aviation, the global manufacturer of aircraft engines and components, will create 146 full-time jobs over four years at its facilities in Asheville and West Jefferson, **Governor Roy Cooper** announced March 1. The company will invest nearly \$105 million to add production capacity supporting its revolutionary ceramic matrix composite (CMC) line of engine components.

State Trends

According the 2018 North Carolina Employer Needs Study conducted by LEAD, the manufacturing sector indicated that finding job candidates was their greatest workforce challenge.

Employers' Greatest Workforce Challenge

Overall, all industries:

Manufacturers:

• Finding Job Candidates – 40%

Finding Job Candidates – 60%

Occupations Most Cited with Hiring Difficulties (Manufacturing)

Production Occupations:

Machinists; Welders, Cutters, Solderers & Brazers

Architecture & Engineering Occupations:

Industrial Engineers; Electrical & Electronic Engineering Technicians

Installation, Maintenance & Repair Occupations:

Maintenance & Repair Workers General; Maintenance Workers, Machinery

Management Occupations:

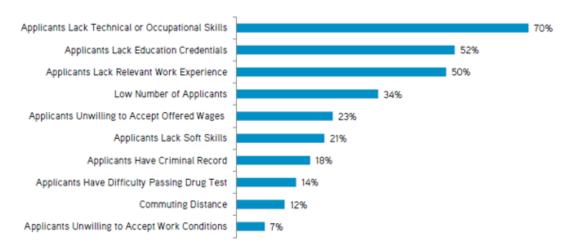
Industrial Production Managers; Marketing Managers

Office & Administrative Support Occupations:

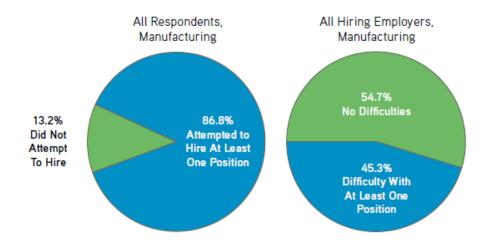
Shipping, Receiving & Traffic Clerks; Customer Service Representatives

The same employer needs survey also indicated that many employers have difficulties finding qualified workers due to job seekers lack of technical or occupational skills, certifications or education credentials, and relevant work experience.

Reasons given for Hiring Difficulties (Manufacturing Sample)



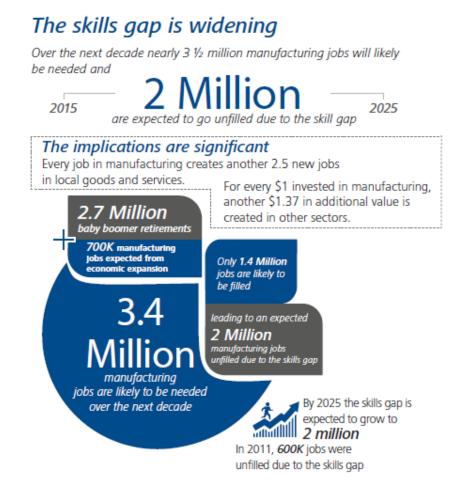
In addition, among the manufacturers who did attempt to hire at least one position, 45.3% of them experienced difficulties with at least one position.



Governor Cooper issued a proclamation declaring October 2-6, 2017 as "North Carolina Manufacturing Week" in an effort to bring attention to the business sector employing 460,000 people statewide (see Exhibit 1A).

National Trends

Nationally, reports and data indicate the skills gap is widening in a growing sector. In a recent study sponsored by the Manufacturing Institute and Deloitte, "The Skills Gap in US Manufacturing 2015 and Beyond", revealed that the skills gap is widening. Over the next decade, nearly three and a half million manufacturing jobs will likely be available, due to the baby boomer retirements and economic expansion. The study estimated 60% of these positions are likely to be unfilled due to the shortage of qualified workers.



Source: Deloitte analysis based on data from U.S. Bureau of Labor Statistics and Gallup Survey.

Source: The Manufacturing Institute and Deloitte "The Skills Gap in US Manufacturing 2015 and Beyond"



https://www.bloomberg.com/news/articles/2018-01-03/manufacturing-in-u-s-accelerates-to-cap-best-year-since-2004

Governor Cooper Proclaims Manufacturing Week in North Carolina

Raleigh: North Carolina highlights the economic importance of the state's manufacturing sector this week in a proclamation issued today by Governor Roy Cooper. The declaration of October 2-6 as 'North Carolina Manufacturing Week' brings attention to a business sector that employs 460,000 people in the state, represents 20 percent of the state's total economic output and offers young people a challenging and rewarding career path.

"North Carolina understands and values manufacturing," said Governor Cooper. "Manufacturing jobs are key to our current and future economy and we need to invest in helping workers and students learn the high-tech skills needed to pursue careers in 21st century manufacturing."

"Students and their parents are learning that a manufacturing career is much different than in the past," said North Carolina Commerce Secretary Anthony M. Copeland. "Today's advanced manufacturing facilities are clean and high-tech, and offer good jobs to those with the right skills. The state's education system offers many opportunities for people to keep their skills sharp throughout their life."

North Carolina is home to the largest manufacturing workforce in the Southeast and the 10th largest in the United States — employing more than 460,000 workers,10.6% of the total workforce. The manufacturing sector makes significant contributions to the state's economy, accounting for 20 percent of North Carolina's gross state product, fifth-highest in the United States. Manufacturing is a major driver of exports for North Carolina. In 2016, North Carolina manufacturers exported \$28.25 billion in manufactured goods.

Governor Cooper and Secretary Copeland will participate in several events to recognize manufacturing this week, and many North Carolina manufacturers and supporting organizations will stage open house and other events leading up to the national Manufacturing Day celebration on Friday.

Governor Cooper will visit Pfizer's manufacturing facility in Sanford on Wednesday, October 4 to participate in a Manufacturing Week event celebrating Pfizer's gene therapy plant in Lee County. Genetic research developed at the University of North Carolina plays a key role in the company's expansion plans and demonstrates the importance of universities and industry working together to transfer technologies developed in research labs to businesses for commercialization and manufacture.

On Wednesday, Governor Cooper will also tour Montgomery County Community College for its Manufacturing Day. Montgomery County Community College will host several high schools, local manufacturers, and industry vendors for tours and oncampus demonstrations to highlight the school's manufacturing centered training programs.

On Thursday, October 5, Governor Cooper will address members of the North Carolina Business Committee for Education (NCBCE) in Raleigh about how to help North Carolina students develop the knowledge and skills needed to compete for good jobs including in manufacturing. Also on Thursday, Secretary Copeland will offer remarks during the opening ceremony for GF Linamar's new manufacturing plant in Mills River. Secretary Copeland will also offer remarks at a ribbon cutting ceremony for Alamance Community College's new Advanced Applied Technology Center on Friday, October 6.

The National Manufacturers Association, the country's largest trade organization for manufacturers, has published a database of manufacturing events being held in North Carolina this week. The database is available online here.

Today's manufacturing jobs require specialized skills and training that community colleges can help workers attain. Last week, Gov. Cooper toured Forsyth Tech Community College's soon-to-open Center for Advanced Manufacturing in Winston-Salem. The new center will include state-of-the-art laboratory facilities to support three manufacturing programs where students will train for the jobs of the future.

North Carolina Community College System works closely with employers and offers more than 800 courses covering manufacturing skills in biotechnology, aviation and defense, pharmaceuticals, financial services, logistics, IT, and advanced manufacturing. Custom training programs offered through community colleges draw on the latest technology and advances in manufacturing production to ensure North Carolina's manufacturing workers stay a step ahead.

In his budget, Gov. Cooper proposed the NC GROW (Getting Ready for Opportunities in the Workforce) Scholarship to help make North Carolina a Top 10 Educated state by 2025. Good students who graduated high school with a 2.0 GPA or higher would get free tuition to any NC community college through the NC GROW scholarship. NC GROW would cover last-dollar tuition and fees for students who have used up other financial aid options.

Governor Cooper's entire proclamation for Manufacturing Week is available online.

October 2, 2017

2. Employer Engagement

Employer engagement is a critical component in the development of training programs and career pathways. The voices of employers are critical in meeting the demands of a skilled workforce as they provide insight and input as industry professionals.

Employer engagement in the manufacturing pathway can be seen through their participation in a variety of ways to include advisory committees, panel presentations, participation in special events, work-based learning sites, community involvement, as well as serving as members on the High Country Workforce Development Board. Manufacturing is strongly represented on the Workforce Development Board by Altec Industries, American Emergency Vehicles (AEV), BRP Marine Propulsion Systems, GE Aviation, Hospitality Mints, Meadows Mills, and NAPCO.

In response to the manufacturing career pathway development, recent workforce development board meetings have had special focus on our local manufacturing employers to bring awareness of the industry. Presentations have included:

★ November 2016: American Emergency Vehicles and NAPCO

★ January 2017: Altec

★ March 2017: GE Aviation and Hospitality Mints (pictured below)



Employer Industry Panel

During the process of developing the manufacturing pathway, employers have been engaged from the beginning. An Industry Panel Discussion facilitated by Patty Thompson and Scott Panagrosso, included a question and answer session (Exhibit 2A) to assess the current employment environment and as well as future needs along with employers' engagement with schools and the community. Panel members included the following:

Altec Industries, Bryan Peterson
American Emergency Vehicles, Sue Miller
BRP, Richard Gambill
GE Aviation, Travis Ritchie
Hospitality Mints, Hayden Gibson
Napco, Courtney Bennett



Business Advisory Councils

Each school district has developed local business advisory councils that will provide economic and workforce trends related to the training and educational needs of the local community and advocating for strong, local career and technical education programs, including career pathway development that provides work-based learning opportunities for students and prepares

students for post-secondary educational certifications and credentialing for high-demand careers.

Members include secondary and postsecondary education, community members including NCWorks, and local employers to include manufacturing. Examples of advisory councils include the Alleghany Business Advisory Council and the Tri-County Business Advisory Council which includes Avery, Mitchell and Yancey Counties (Exhibit 2B).

Employer Questionnaires

In an effort to gain a better understanding of employer needs, many participated in a short questionnaire regarding their workforce and involvement. Responses included the following:

Do you feel you have a large enough pool of skilled or qualified workers to meet your current and/or future hiring needs?

Pioneer Eclipse	Yes
• Tyson	Unless we add more positions, I feel that we can find qualified workers when the need arises.
Weyerhaeuser Company	No
 Elementia 	I receive a constant pool of applicants, however I do feel that we lack in the skills/qualifications that we would like to have.
Parkdale Mills	At this time I feel that we do have a large enough pool.

What are the top three weaknesses in either skill sets or employability that you see in your current labor workforce?

 Pioneer Eclipse 	Work ethic; communication skills	
Tyson	Experience; Strong work ethic; Dedication	
Weyerhaeuser Company	Showing up – pretest or interview; need to be more self- directed and stay off of their phones; mechanical thought process	
• Elementia	Dependability; lack of common sense; minimal motivation for hard work	
Parkdale Mills	Frequent job changes; Little to no job experience; Inability to take constructive criticism	
JeldWen	Lack of skilled tradesmen	
United Chemi-Com	Lack of qualified employees; employees with good work ethic	

 PSG Custom Fabrication 	Currently our biggest workforce concern is employee	
LLC	retention of well-rounded employees	
Leviton	Biggest concern is finding employees with technical skills	
What are the top three manufacturing and welding positions you typically need to fill?		
PCC Control Exhausting Control Labour Welding Floridation		

PSG Custom Fabrication	General Laborer, Welding, Electrician
United Chemi-Com	Production Team Members, PLC Programmer, Quality Control Tech
JeldWen	Machine Operator, Maintenance Technician, Material Handler
NAPCO	Machine Operator, Assembler, Material Handler
Leviton	Electronic Technician, Industrial Mechanic, Quality Control Technician

Where do you find your employees? In short, what are your existing employee pipelines? How effective are they?

How effective are they:	now ellective are they:		
Pioneer Eclipse	Some are direct hires (have found some on FB), Indeed, and thru temp services		
• Tyson	We post our openings within the Tyson complex in Wilkes first and if we don't find a suitable candidate, we post on NCWorks.		
Weyerhaeuser Company	Advertise on line, employee referrals, community colleges and goodwill. Employee referrals bring in the most, but not the best candidates. On-line advertisements bring in some candidates, but occasionally people are confused about the location. Goodwill sends some candidates. College provides the least candidates.		
 Elementia 	Most of our employees are walk-ins or current employee referrals. Some temporary workers are hired full-time. Moderately effective-employee referral is most effective of the 3.		
United Chemi-Com	Word of mouth, other employees; NCWorks		
• Leviton	Wilkes Community College		

Have you ever used the NCWorks Career Centers to assist you in job placements?

Pioneer Eclipse	No
Tyson	Yes
 Weyerhaeuser Company 	Our jobs are posted with the NCWorks Career Centers.
 Elementia 	Not in my time with this company.
United Chemi-Com	Yes

Does your company have any Work-Based Learning programs? (Internships, Mentorships, Apprenticeships, etc.)

Арріс	nticeships, etc.)	
•	Pioneer Eclipse	Yes. Internships with local HS and colleges
•	Tyson	Maintenance mechanics are the positions that Tyson has the most difficulty in filling at the processing plants and
		due to this need, Tyson Corporate just announced on
		January 2 nd that they have signed an agreement with the
		Department of Labor as a Registered Apprenticeship
		program employer for industrial maintenance.
•	Weyerhaeuser Company	We have 2 maintenance summer intern positions that we
	,	recruit from Surry and Wilkes Community Colleges. We
		get very few applicants from either school, which is
		surprising considering that the students are in a
		mechatronics degree program but are not interested in
		getting hands on experience.
•	Elementia	Yes, we developed a training project in conjunction with
		Wilkes Community College to offer training to our entire
		plant (LEAN, 5S, Problem Solving, Basic Electrical, etc). We
		have an in house apprenticeship involving moving
		manufacturing workers to maintenance-to build our own
		maintenance technicians. Potentially looking at starting
		an internship program as well.
•	NAPCO	Yes, Alleghany High School, Grayson County High School,
		and Wilkes Community College
•	United Chemi-Com	We use work-based learning in conjunction with WCC and
		plan to continue this program (currently have three
		students). Also work with ASU for specific jobs requiring a
		four-year degree (with one student graduating in May with a full-time position). Planning with Ashe High School
		process for job shadowing, internships, and
		apprenticeships.
	Leviton	Internships with WCC, technical work-based learning
	LCVICOII	internation with week, technical work-based learning

What Career Awareness programs are you involved with? *Do you participate in any Job Fairs, Facility Site Tours, Teacher Tours, Career Center Events, etc.*

Pioneer Eclipse	Job fairs, tours
• Tyson	We do facility site tours for the local middle and high schools
Weyerhaeuser Company	We participate in career fairs, manufacturing day, and have had high school teachers come in for externships.
Elementia	I try to attend local job fairs at the high schools
NAPCO	WCC Manufacturing Day, local job fairs
JeldWen	No, but would be open to
United Chemi-Con	Job fairs; student and teacher tours; presentations at school "Smart Lunch"; participate in the STEM program;
• Leviton	Job Fairs at Ashe High School, Career Day at Ashe Middle School, Facility site tours and teacher tours

Do you actively seek to hire:

- Military Veterans
- O Special Populations via Vocational Rehab Office
- o Former Offenders

D.	A delle and a second se
 Pioneer Eclipse 	 Military Veterans Yes
	 Special Populations via Vocational Rehab Office
	Yes
	 Former Offenders Have hired some
Tyson	I would hire the most qualified, but Tyson places an
	emphasis on hiring Veterans.
 Weyerhaeuser Company 	Military Veterans Yes
	 Special Populations via Vocational Rehab Office No
	due to our work environment – restrictive to many
	disabilities – visual, hearing, mobility, cognitive
	 Former Offenders No – applicants must have a
	clean record for 7 years prior to being hired
Elementia	 Military Veterans-yes when they are available-we
	have several employed already.
	 Special Populations via Vocational Rehab Office
	not at this time-due to our environment
	 Former Offenders not at this time-company policy















Napco is a packaging company that specializes in one of a kind master pieces. Our best employees are sourced locally by word of mouth and through our local staffing agencies. Our biggest concern from a workforce standpoint is having enough qualified people to hire for our company at all levels. We are in constant need of skilled machine operators that are willing to learn our unique processes.

Courtney Bennett | HR Director 120 Trojan Ave. | Sparta, NC 28675 Direct: 336.372.1221 | Fax: 336.372.8890 courtney bennett@napcousa.com



thinking BEYOND the box

Bob Hege, Meadows Mills

Meadow Mills has a 110 year tradition of making the highest quality mill manufacturing equipment including: sawmills, hammer mills and stone burr mills. Our best employees come from a farming background. They know a little bit of everything. Know how to weld a little. Fix machines a little. Familiar with fixing things in general and using their hands and brains. But not everyone grows up on a farm, so if they finish high school with a STEM background and take some short term classes at Wilkes or Surry, that's fine. Technical Engineering. Welding. Fabrication. We want kids that can read a ruler, a square, a plumb bob. We are finding kids show up here and can't do the basics. Can't read a ruler. That's not going to work. Our head accounting officer has to teach the kids how to open up a bank account and how to balance their checking accounts. So soft skills are lacking, too.

A "Round Robin Approach" to learning a little bit of everything isn't a bad idea.

Meadows Mills, Inc.

Mill Manufacturers since 1902



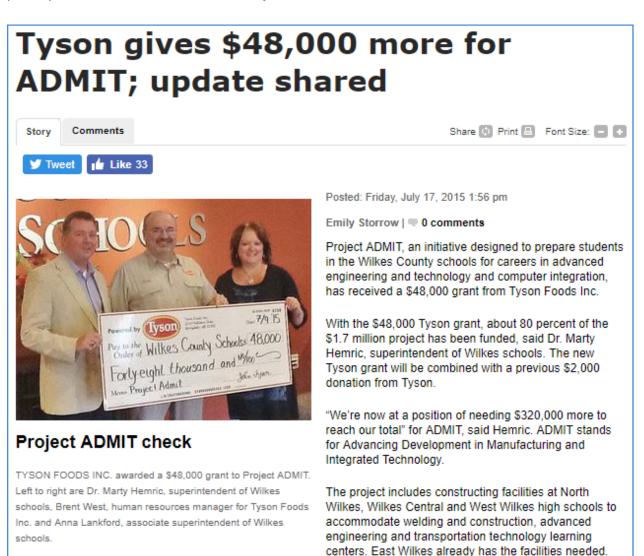
Robert "Bob" Hege, President Meadows Mills, Inc. PO Box 1288 1352 West D Street North Wilkesboro, NC 28659 Toll Free 1- 800-626-2282 Telephone 336-838-2282 Fax 336-667-6501

Employer Support

Please see attached letters of support for the manufacturing career pathway from several High Country employers (Exhibit 2C):

- **★** American Emergency Vehicles
- ★ Altec
- **★** GE Aviation
- **★** Napco

Employer support can also be seen by employers such as Tyson Foods in their donation and participation in the collaboration of Project ADMIT.



Employer support can also be seen by companies participating with Wilkes County Schools and its pre-apprenticeship program. See excerpt from *Wilkes Journal-Patriot* newspaper article (March 20, 2018) below and full article in Exhibit 2D.

Pre-apprenticeships are planned for:

- industrial maintenance technicians at Inteflex Group, Jeld-Wen, Gardner-Glass Products and ECMD;
- · cyber-security specialists and graphic designers at Infusion Points;
- welders at Johnston Casuals;
- manual machinists and machine builders at Meadows Mills;
- pre-press operators at InterFlex Group;
- IT support technicians and network support representatives at Wilkes Communications.

Employers across the region can be recognized for their support of a qualified workforce. In particular, the employer engagement demonstrated in Wilkes County was a large goal towards earning the Work Ready Community status. With 80 employers supporting, over a dozen were representing the manufacturing sector.



Efforts are also underway in Watauga County towards their goal of earning the Work Ready status with the support of 83 employers, with nearly a dozen representing the manufacturing sector.



Source: ACT WorkReady Communities website.



High Country's Manufacturing & Welding Strategic Planning Committee: Meeting 1 Dec. 6th, 2017 11:30 am – 1:30 pm BREMCO Office Community Room

Welcome & Introductions were provided by Keith Deveraux, Director, High Country Workforce Development Board.

Brief History of Certified Career Pathways in North Carolina; The Process: Eight Criteria & Collaborative Focus Groups was provided by Patty Thompson, Career Pathway Facilitator. Presentation provided overview of the certification process and timeline for High Country. Three focus groups will be created with a mixture of key stakeholders to address the criteria of:

- 1. Employer Engagement, Career Awareness and Collaboration
- 2. Articulation & Coordination, Work Based Learning and Multiple Points of Entry and Exit
- 3. Demand Drive and Data informed, Evaluation

Industry Panel Discussion facilitated by Patty Thompson and Scott Panagrosso, included a question and answer session to assess the current employment environment and as well as future needs along with employers' engagement with schools and the community. Panel members included:

Altec Industries, Bryan Peterson
American Emergency Vehicles, Sue Miller
BRP, Richard Gambill
GE Aviation, Travis Ritchie
Hospitality Mints, Hayden Gibson
Napco, Courtney Bennett

Discussion was held around the following questions:

- 1. Do you feel you have enough qualified applicants to meet your needs?
 - All employers indicated finding enough applicants was a challenge. Several stated that keeping staff at full capacity is a challenge.
 - All stated they were willing to train, however are unable to find the number of needed, willing individuals that will commit.
- 2. What do you see as the top weaknesses with the workforce?
 - Lack of communication skills with the ability to take and give instructions as well as understand written processes
 - Overall work ethic
 - Ability to work in a team environment with conflict resolution skills
 - Lack of general/basic computer skills for completing tasks or employee related documents
 - Overall lack of general skills such as basic math, measurements, etc.
 - In some cases, employers are competing with the seasonal environment/jobs
 - Was noted that a recent survey showed that 77% of employers said work ethic was an issue and 72% said soft skills were an issue.
- 3. Where do you find your employees?

- Word of mouth was mentioned by all employers
- Many use temporary hiring agency
- Common job search boards such as NCWorks, Indeed, websites, and local resources
- Interns that may result in employees
- 4. How do you use educational programs/resources in the area?
 - All stated they have partnerships with local high schools to reach students
 - Many have student and teacher tours
 - Many schools have or are setting up advisory groups to address local needs
 - All stated their relationship with their community college was critical
 - AEV has an in-house welding certification in partnership with WCC
 - Napco is partnering with WCC to offer a six-month leadership development class for employees
 - Hospitality Mints has open community with ASU and works with graduate students/interns
 - GE relies on WCC for testing and pre-hire course and local training opportunities
 - All stated that internal training occurred and was critical
 - All indicated they offered tuition reimbursement for employees
 - CCC&TI stated they offer Manufacturing Institute of teach basic manufacturing principals that includes HRD and basic skills/concepts
 - Some schools utilize NCWorks to address soft skills and register students in NCWorks
 - Was stated that all should be trying to make manufacturing popular again to students and parents
 - Was stated that a challenge we face is that secondary school curriculum is developed by NCDPI and offers little local input that could help meet identified needs
 - Training need identified was need for more general understanding of manufacturing concepts (LEAN) and technical skills
 - Due to low unemployment, was stated that a focus may be needed on the bottom forth of the population
- 5. What methods of outreach are being used?
 - Altec shared about their efforts of bringing in students and providing the full experience of various positions while providing lunch
 - CCC&TI offers Higher Ed program that takes teachers into business
 - Avery has begun 8th grade STEM tours to get middle school involvement
 - Many stated their participation with secondary school event and fairs
 - Was suggested to tie in with the Manufacturing Week
 - Several indicated they outreach to veterans but most have limited outreach to other special populations

Future Meetings are scheduled for 2018:

Jan. 24th, Wednesday, 11:30am – 1:30pm

Feb. 21st, Wednesday, 11:30am - 1:30pm

Tri-County Business Advisory Council Avery-Mitchell-Yancey County Schools 2017-2018

Mayland Community College: Dr. John Boyd, President

Avery County Representatives

Avery County Schools: Bill Miller, Superintendent

Kim Davis, CTE Director

Todd Griffin, Avery High School Principal

Mark Parlier, Career Development Coordinator

Architecture & Construction: Christon Clark, Executive Director

(4 Year Term)

Avery Habitat for Humanity

Business and Finance: Richard Honeycutt, Financial Advisor

(1 Year Term) Edward Jones

Health Science: Eula Johnson, Registered Nurse

(3 Year Term)

Appalachian Regional Healthcare System

Hospitality and Tourism: Jesse Pope, Executive Director

(1 Year Term)

Grandfather Mountain

Marketing: Matt Debnam, Reporter

(2 Year Term) Avery Journal

STEM: Paul Harris, Operations Manager

(2 Year Term)

Mountain Heritage Systems

Transportation: Steve Deyton, CSX

(3 Year Term)

Workforce Development: John Greene, Branch Manager

(4 Year Term)

NC Works Career Center

Mitchell County Representatives

Mitchell County Schools: Chad Calhoun, Superintendent

Kim Hodshon, CTE Director

Mark Woody, Mitchell High School Principal Denise Murphy, Career Development Coordinator

Agriculture, Foods and Jeff Vance, Director

Natural Resources: (1 Year Term)

Mitchell County Cooperative Extension Agency

Health Science: Ciji Dellinger, Clinical Supervisor

(1 Year Term)

Mitchell County Health Department

Human Services: Misti Silver, Human Services Faculty

(2 Year Term)

Mayland Community College

Marketing: Brandon Roberts, Publisher and Editor

(4 Year Term)

Mitchell News-Journal

Business/Finance: Laura Verla

(2 Year Term) People's Furniture

Workforce Development: April Jones, Youth Career Coach

(3 Year Term)

NC Works Career Center

Yancey County Representatives

Yancey County Schools: Dr. Tony Tipton, Superintendent

Cynthia Deyton, CTE Director

Kevin Huskins, Mtn. Heritage High School Principal Renee McCurry, Career Development Coordinator

Agriculture, Foods & Tres Magner, Director

Natural Resources (2 Year Term)

Yancey County Cooperative Extension Agency

Architecture & Construction: Nathanial Ayers, Owner

(1 Year Term)
Ayers Construction

Business and Finance: Erica Deaton, Branch Manager

(3 Year Term)

State Employees Credit Union

Government & Public

Administration:

Jamie McMahan, Planning and Economic Development Director

(2 Year Term)-Chair

Yancey County Government

Hospitality and Tourism: Preston Ptak, Assistant Director of Dining Services

(4 Year Term)

Mars Hill University

Chad Becker, General Manager

(1 Year Term)-Vice Chair

Mountain Air Club

Human Services: Marylee Yearick, Child Care Resource & Referral Coordinator

(4 Year Term)

Blue Ridge Partnership for Children

Manufacturing: Bryan Peterson, Human Resources Manager

(3 Year Term)

Altec Industries, Inc.

Alleghany Business Advisory Council 2017/2018

Ex-officio Members

Chad Beasley - Superintendent of Alleghany County Schools Heath Vogler - Director of CTE, Alleghany County Schools Jeff Cox/Susan Nilo - WCC Scott Carter - Principal of Alleghany High School

Membership

Courtney Bennett - Human Resources Director - NAPCO - 4 Year Term Kenneth Richardson - Chairman of BDC and President of K&E Enterprises, Inc.- 4Year Term Johnny Wishon - Wishon Evergreens - 3 Year Term Monique Iglesias - Entrepreneur - 2 year Term Joel Souther - Blue Ridge Energy - Alleghany District Manager - 1 year Term Zach Barricklow - Versad Foundation - 3 Year Term Chrystyne Murphy - Executive Director - Alleghany County Chamber of Commerce - 2 year Term



Feb 16, 2018

NCWorks Commission North Carolina Department of Commerce 4316 Mail Service Center Raleigh, NC 27699

To whom it may concern,

AEV is a vibrant ever-growing manufacturer of emergency vehicles. AEV is in Ashe County and employ a staff of over 500. I am writing to you in support of The High Country Workforce Development Board Career Pathway in Manufacturing. As technology changes and demands increase, a strong, ready workforce is desperately needed, not only in Ashe County, but the entire High Country. Unemployment rates are at levels we have not seen in a long time. The pursuit of qualified individuals in our county is a challenge. Other manufacturers in our county are experiencing the same issue. Plenty of jobs, lack of qualified workforce. We can put people to work in Ashe County.

The need is there. Our future, our economy, depends on programs like these to prepare individuals to be successful in the work force. Manufacturing is alive and well at AEV, GE, Leviton, and United Chemi-Con.

I speak for AEV. However, I can guarantee the above mentioned are in agreement.

Sincerely

Director of Manufacturing American Emergency Vehicles



P. O. Box 130 150 Altec Drive Burnsville, NC 28714 Telephone: (828) 678-5500 Facsimile: (828)-682-4215

www.altec.com

February 16, 2018

NC Works Commission North Carolina Department of Commerce 4316 Mail Service Center Raleigh, NC 27699

To Whom It May Concern:

Altec continues to support the High Country Workforce Development Board Career Pathway in Manufacturing. As Altec continues grow nationwide, we continue to seek associates with a manufacturing background.

The Altec Burnsville plant hires new associates regularly. There is a need to hire associates to fill open positions in our Fabrication, Assembly, Paint, and Final Assembly Departments. We also actively recruit candidates for our Design and Manufacturing engineer positions. We have an increasing need to fill positions at our Burnsville location as we strive to keep up with the growing demand for our product. Altec recently participated in a showcase at the White House celebrating the importance of manufacturing and economic growth. Altec strives to be preferred supplier of truck utility bodies and we need associates that share our vision and goals and will help us to achieve them. Everyone at Altec is considered part of the Team.

Sincerely,

Bryan Peterson

Human Resources Manager

150 Altec Drive

Burnsville, NC 28714

828-678-5502



GE - Aviation 400 The Professional Way West Jefferson, NC 28694 (336) 248-1721; Fax - (336) 848-2004

400 The Professional Drive West Jefferson, NC 28694 March 5, 2018

NCWorks Commission North Carolina Department of Commerce 4316 Mail Service Center Raleigh, NC 27699

To Whom It May Concern,

GE Aviation-West Jefferson has been a key manufacturing facility in the Supply Chain of GE Aviation for going on 10 years. The foundation of this facility has been and will continue to be its workforce. This workforce is primarily made up of residents of the High Country, and a group that takes an immense amount of pride in the work that they do.

In 2014, this workforce successfully secured a 100k sq ft. expansion in preparation for production of parts for GE Aviation's newest commercial engine, LEAP (Leading Edge Aviation Propulsion). GE has invested \$153 million, which is primarily for machines and most importantly people. The business has successfully added 141 new employees since 2014 and is looking to continue that hiring over the next year.

These 141 new employees that have been added so far are the same employees manufacturing complex jet engines parts for some of the world's most popular airlines. There is a continued need for our business to have the same level of qualified candidates available, not only as we continue to expand, but to allow us to be successful for many years to come.

The High-Country Workforce Development Board has been a great partner to GE Aviation and has helped make us successful through the last 4 years as we have transformed our business.

Sincerely.

John Lyons, Plant Leader GE Aviation West Jefferson Member, High Country Workforce Development Board



NCWorks Commission

North Carolina Dept of Commerce

4316 Mail Service Center

Raleigh, NC 27669

Dear Sir/Madam:

I am writing on behalf of the High Country Workforce Development Board Career Pathway in Manufacturing initiative. As the president of a manufacturing company in the High Country, I see firsthand the benefits of this initiative throughout the High Country area. I also see the need to match qualified candidates looking for jobs in manufacturing with open positions in the High Country.

Located in Alleghany County, NAPCO is a manufacturer of high end packaging using primarily rigid board construction. Our process incorporates sophisticated machinery in the manufacture of turned edge rigid packaging for a variety of industries. Our customers include Activision/ Blizzard (video gaming), HBO, L'Oréal, Eastman Chemical, and many others located throughout the United States. We are constantly looking for qualified, trained machine operators to join our team and continually have trouble finding them. While we recruit within the county, we find that we must expand our search into surrounding counties and into Virginia as well. In conversations with management of other manufacturing companies in the area, we find that they too have unfilled positions that they are recruiting for.

Given the reduced emphasis on technical education in today's middle and high schools, I believe initiatives like the HCWDB Career Pathway in Manufacturing are a great benefit to companies like ours in identifying and training people for a career in manufacturing. In fact, I believe so strongly that I have volunteered to serve on the HCWD Board. If I can assist you in any way, please do not hesitate to contact me. I can be reached on my direct line at 336.372.1240 or by email at pdemmink@napcousa.com.

Regards

Paul R. M. Demmink

President

NAPCO

Key pre-apprenticeship dates listed

Jule Hubbard | Posted: Tuesday, March 20, 2018 12:00 pm

Important dates are coming up for rising high school seniors in the Wilkes County Schools interested in paid pre-apprenticeships at local companies this summer.

To be eligible for selection for one of the initial 13 pre-apprenticeships in the new program, students and their parents/guardians must attend:

- a parent information session scheduled for 6 p.m. March 29 at the Stone Center in the Wilkes County Schools administrative building on Cherry Street, North Wilkesboro;
- an orientation session at one or more of the seven companies offering pre-apprenticeships this summer. Students and their parent/guardians may attend more than one session. Dates for these sessions are Meadows Mills and Infusion Points, both April 9; Interflex Group and Johnston Casuals, both April 10; Gardner Glass Products, April 11; and Jeld-Wen and Wilkes Communications, both April 12. All sessions start at 6 p.m.

The deadline to apply for a pre-apprenticeship is April 13, said Wayne Shepherd, director of career and technical education for the Wilkes schools. Applications are available from high school counselors. ECMD and a few other companies plan to participate in the summer of 2019, said Shepherd.

He said that to be selected as a pre-apprentice, a student must have the ultimate goal of being an "adult apprentice" for the same company that hires him or her as a pre-apprentice. Shepherd said representatives from sponsoring companies will interview all applicants, and will select the best candidates based in part on a desire to live and work in Wilkes County.

Students also must be eligible to participate in the Career and College Promise (CCP) program, but he said they don't have to be in CCP or any other high school program to have a pre-apprenticeship.

Other eligibility requirements are available from school counselors.

Dates of the eight-week pre-apprenticeship program are June 4-29 and July 9 to Aug. 3.

Pre-apprenticeships are planned for:

- industrial maintenance technicians at Inteflex Group, Jeld-Wen, Gardner-Glass Products and ECMD;
- cyber-security specialists and graphic designers at Infusion Points;
- welders at Johnston Casuals;
- manual machinists and machine builders at Meadows Mills;
- pre-press operators at InterFlex Group;
- IT support technicians and network support representatives at Wilkes Communications.

Shepherd said each pre-apprentice will work at least 20 hours per week for a total of at least 160 hours under supervision of a mentor at the sponsoring company during the eight-week pre-apprenticeship. Sponsoring companies will pay them minimum wages.

Unless already completed, each student must also complete certain courses at Wilkes Community College during the eight-week pre-apprenticeship.

For technology occupations, these courses are "CTI 110—Web, Pgm and Database Foundation" and "CIS 110—Introduction to Computers." For manufacturing occupations, these courses are "ISC 112—Industrial Safety" and "MEC 111—Machine Processes 1." Shepherd said students who already completed one of these courses through CCP will take "CTS 115—Information Systems Business Concepts" at WCC during the pre-apprenticeship period.

He said sponsoring companies decide which of their pre-apprentices are retained as apprentices before students start their senior year. Shepherd suggested thinking about a pre-apprenticeship as a tryout for an athletic team. Students chosen as apprentices are those who actually make the team.

Sponsoring companies are working with WCC officials to develop written plans for on-the-job training and community college coursework for pre-apprentices and apprentices. These plans will be presented to ApprenticeshipNC, part of the N.C. Community College system, for approval and registration with the state.

Shepherd said the plans will include incremental pay increases for apprentices as they acquire new job-related skills and knowledge, thus providing incentives for staying with a company and becoming more valuable employees.

Sponsoring companies will pay pre-apprentices and apprentices hourly wages for their time in community college classes, which for apprentices will continue after they graduate from high school and for some will require obtaining associate degrees. College tuition is waived for registered pre-apprenticeships and apprenticeships.

Shepherd said companies interested in learning more about sponsoring pre-apprenticeships and apprenticeships can contact him at 336-651-7133 or shepherj@wilkes.k12.nc.us.

3. Collaboration

Collaboration between key stakeholders is required in order to achieve the goal of helping industry get a pipeline of a trained workforce. As evidenced in this submission, there has been inclusive collaboration from industry, secondary education, post-secondary education, workforce development, apprenticeship, Vocational Rehabilitation, former offenders and Veteran Services (Exhibit 3A; Exhibit 3B; Exhibit 3C) Below are key examples of how partnerships have resulted in outcomes for the High Country.

Collaboration can been seen during the participation of the development of the pathway in the High Country regional meetings. Meetings were supported by employers, education, and community members.

ACT Advanced Manufacturing Event

Collaboration can be seen during the ACT Advanced Manufacturing Event held each year with Yancey High School (Exhibit 3D). An entire grade of students participates in a day-long event exposing them to post-secondary education, soft skills, financial literacy, and local employers. Partners included in this successful event include the following:

- Yancey High School/CTE
- Mayland Community College/Advanced Manufacturing Center
- Altec Industry Tour and Career Information
- NCWorks Career Center/NextGen
- Local Credit Union



Pre-apprenticeship Development

Efforts to build a pipeline of qualified workers is taking place through a very recent and exciting project involving great collaboration and planning. The newly developing Pre-Apprenticeship program taking off in Wilkes County is a collaboration between Wilkes County Schools CTE, Wilkes Community College Business and Industry, and multiple employers is resulting in an upcoming summer pre-apprenticeship program in the areas of manufacturing and information technology (see Exhibit 3E).

Local potential participating employers include the following:

- Meadows Mills
- Gardner Glass
- East Coast Mill Distributors
- Jeld-Wen
- Infusion Points
- Interflex Group
- Wilkes Communications

Qualified selected students will be required to take an Industrial Safety course (which has been identified as a need by employers) and work under supervision for a six-week summer program. Pre-apprentices are paid while in the classroom and while at the worksite. Upon completion of the summer program, students will continue their studies specific to their occupation.

Wayne Shepherd, CTE Director, presented at the February 2018 career pathway meeting to educators and other manufacturing employers on their efforts and how this project could be duplicated in other areas.



Northwest Prosperity Zone Community College Day

Other events such as the Community College Day for the Northwest Prosperity Zone (Exhibit 3D) also bring awareness to business and industry in the High Country and surrounding regions. The event was designed to show how community colleges in the area are supporting advanced manufacturing and helping to revitalize and strengthen the economy in our region while providing live demonstrations of some the programs offered at Wilkes Community College in the advanced manufacturing field. Wilkes Community College hosted the event in March 2017 and included the following partners:

Elected Officials
Business & Industry
Caldwell Community College
Mayland Community College
Western Piedmont Community College

EDC representatives
College Presidents & Trustees
Catawba Valley Community College
McDowell Technical Community College
Wilkes Community College

Mayland Community College Advanced Manufacturing School

The reality of the manufacturing training center in Yancey County was the result of collaboration of multiple entities. Partnerships from education, industry, corporate and private donors, including Duke Energy Foundation, and local community members resulted in state of the art training center that opened in 2015.



North Carolina Center for Engineering Technologies

The North Carolina Center for Engineering Technologies provides facilities for applied research in engineering related fields and serves as a conduit to baccalaureate education delivered by the University of North Carolina system schools.

The center offers the opportunity for students to participate in a variety of labs such as:

- Rapid Product Realization
- Engineering Design
- Metrology & Rapid Prototyping
- Polymers & Composites Lab
- Patternmaking Lab
- Mechatronics Lab (if future funded)

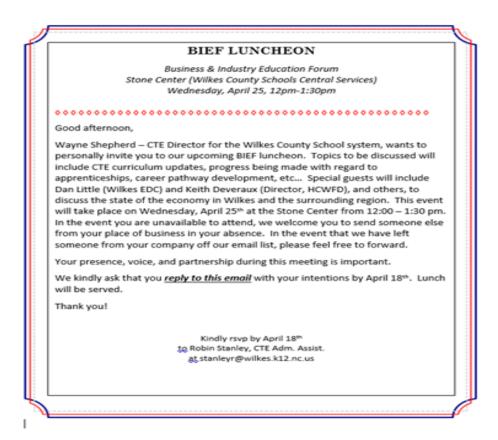
The primary schools involved in the center are Appalachian State University, Western Carolina University, University of North Carolina – Charlotte, Catawba Valley Community College, Caldwell County Community College and Technical Institute, and Western Piedmont Community College. The Center may collaborate with other schools in bringing the best programs to the region to meet the employment needs.

Business, Industry, & Education Forum (BIEF)

BIEF, organized by Wilkes County Schools, is a platform which provides opportunities for meaningful dialogue between the school system, the community college, workforce development and local business and industry partners. The primary goal of BIEF is to produce better qualified employees for local industry; thus providing a means for individuals and/or families in our community to earn fair and competitive wages.

BIEF meetings often consist of panel discussions, program tours, and partnership updates. For example, the Fall 2016 meeting (Exhibit 3D) included program updates and a visit to a local high school highlighting a training program, while the Spring 2017 BIEF meeting was focused on a panel discussion themed, "Current & Future Workforce Needs/Trends in Wilkes County" with local employers participating.

Spring 2018 will include educational updates related to career pathways and apprenticeship development.



Employer Training

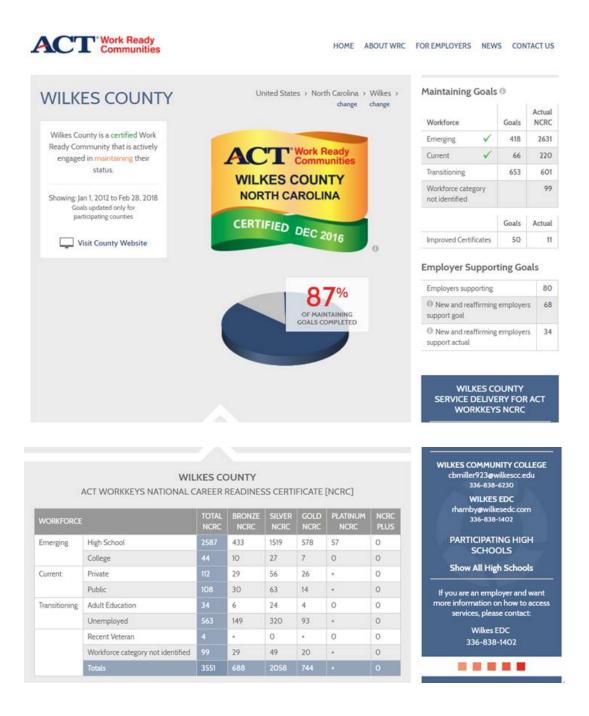
Customized training is a valuable resource for manufacturing employers to ensure future growth and stability. Their collaboration with local community colleges provides a much needed resource to train their incumbent workforce and to increase skill levels and to improve job retention. During 2017 the following employers participated in customized training in Alleghany, Ashe, and Wilkes Counties:

- Tyson Foods Inc.
- Herbal Ingenuity
- Worldwide Protective Products
- Plycem USA
- Leviton
- Pioneer Eclipse

Plans for training have been taking place by additional employers such as Interflex, United Chemi-Con, and GE Aviation (Exhibit 3F).

Wilkes Work Ready Community

Multiple community partners invested considerable time in their efforts towards reaching their goals to become a certified Work Ready Community. Goals were tied to Career Readiness Certificate completions and employer support of the initiative. Efforts were led by the Wilkes Economic Development Corporation in partnership with the High Country WDB, NCWorks Career Center, Wilkes Community College, and Wilkes County Schools.



Source: ACT Work Ready Communities website



Thank you for attending the High Country Strategic Planning meeting on Wednesday, Dec. 6th. So that we can have our educators on the same page, this meeting will have an informal employer panel where you will be asked questions. Nothing tricky. In fact, we want you to know the questions in advance so that you can reflect on them a bit. See below. Time being a factor, we may not get to each question for every industry participants, but you will probably be asked a couple of the questions below.

Once we are done with the Industry Question & Answers, we should have a better idea of some of the unique manufacturing hiring needs of the High Country Seven County Region and can begin a more tailored approach with the Career Pathway certification process.

Thanks in advance for your willingness to help with this brief industry panel!

AGENDA

High Country's Manufacturing Strategic Planning Committee

Meeting 1

Dec. 6th, 2017

11:30 am – 1:30 pm

BREMCO Office Community Room

2491 Old US Hwy 421 South

Boone, NC 28607

11:30 am - 11:45 am **Lunch**

11:45 am – 11:50 am Welcome & Introductions

Keith Deveraux, Director, High Country Workforce Development Board

11:50 am – 12:15 pm Brief History of Certified Career Pathways in North Carolina

The Process: Eight Criteria & Collaborative Focus Groups

- 1. Employer Engagement, Career Awareness and Collaborative
- 2. Articulation & Coordination, Work-based Learning and Multiple Points of Entry & Exit
- 3. Demand Driven & Data-Informed, Evaluation

Three focus groups will be created with a mixture of the key stakeholders. Discussions will be focused on the eight criteria and the related criteria. *Patty Thompson*, Career Pathway Facilitator, NCWorks

12:15 pm – 1:25 pm Informal Industry Panel Discussion

A facilitated Industry Question & Answer session will assess the current employment environment and as well as future needs. Also, manufacturing employers' engagement with schools and the community will be discussed.

INDUSTRY PANEL

Sue Miller, American Emergency Vehicles

Travis Ritchie, GE Aviation

Richard Gambill, BRP

Hayden Gibson, Hospitality Mints

Bryan Peterson, Altec Industries

Courtney Bennett, Napco

Facilitators: Patty Thompson & Scott Panagrosso, Career Pathway Facilitators, NCWorks, Dept.

of Commerce

QUESTIONS

- Does the region have a large enough pool of skilled or qualified workers to meet your current and/or future hiring needs?
- What are the top three weaknesses in either skill sets or employability that you see in your current labor workforce?
- What are your existing employee pipelines? How effective are they?
- How are you utilizing educational programs (high schools, colleges, etc.) in your area to help train the workforce?
- Do you work with NCWorks Career Centers to assist you in job placements?
- What Career Awareness programs are you involved with? (Job Fairs, Facility Site Tours, Teacher Tours, Career Center Events, etc.)
- Does your company have any Work-Based Learning programs? (Internships, Mentorships, Apprenticeships, etc.)
- Do you actively seek to hire former military/veterans? Special Populations via Vocational Rehab Office?

1:25 pm – 1:30 pm Time Frame for Pathway and Question & Answer period

1:30 pm Adjourn

Future Meetings:

Jan. 24th, Wednesday, 11:30am – 1:30pm Feb. 21st, Wednesday, 11:30am – 1:30pm



High Country's Manufacturing & Welding Strategic Planning Committee

Meeting 2
Jan. 24th, 2017
11:30 am – 1:30 pm
BREMCO Office Community Room
2491 Old US Hwy 421 South
Boone, NC 28607

11:30 am **Lunch**

11:45 am Welcome & Introductions

Keith Deveraux, Director, High Country Workforce Development Board

11:50 am – 12:10 pm **2**nd Informal Presentations – Unique Talent Pipeline Providers

Brief presentations by state agencies that can assist employers' talent pipeline

Vanessa L. James, Regional Former Offender Specialist

Andrew Holland, Career Advisor - Veterans

Jim Stout, Business Relations Representative, Div. of Vocational Rehabilitation

12:10 pm - 1:25 pm **Focus Groups**:

1. Employer Engagement, Career Awareness and Collaborative

Articulation & Coordination, Work-based Learning and Multiple Points of Entry & Exit

3. Demand Driven & Data-Informed, Evaluation

The three focus groups will convene and the respective objectives of each group will be discussed. Focus group tasks align with the eight criteria and related certification application requirements.

1:25 pm – 1:30 pm Question & Answer period

1:30 pm Adjourn

NEXT MEETING: Final Meeting, Wednesday, February 21st, 2018, 11:30 am – 1:30 pm

Location: BREMCO, Lunch will be provided.



High Country's Manufacturing & Welding Strategic Planning Committee

Meeting 3
Feb. 21st, 2018
11:30 am – 1:30 pm
BREMCO Office Community Room
2491 Old US Hwy 421 South
Boone, NC 28607

AGENDA

11:30 am	Lunch
11:45 am	Welcome & Introductions Keith Deveraux, Director, High Country Workforce Development Board
11:45 am – 12:05 pm	Informal Presentation – Apprenticeships in the High Country A brief overview by regional CTE Director who will go over how his school system is embarking on using the Apprenticeship model which uses education as well as OTJ training to increase the local talent pipeline Wayne Shepherd, CTE Director, Wilkes County Schools
12:05 pm – 12:20 pm	Overview of the High Country Advanced Manufacturing Career Pathway by Focus Group Patricia Thompson, Career Pathway Facilitator, NCWorks Misty Bishop-Price, High Country Pathway Project Manager Rebecca Bloomquist, High Country Pathway Project Manager
12:20 pm – 12:30 pm	Informal Presentation – Mayland Community College: The Anspach Advanced Manufacturing School Dr. John Boyd, President, Mayland Community College
12:30 pm – 12:40 pm	Distribute signature forms for signatures
12:40 pm – 1:25 pm	Collaborative Discussion : A final discussion with all in attendance on criteria points required in the application and for subsequent implementation.
	Closing Remarks Keith Deveraux, Director, High Country Workforce Development Board
	Adjourn

	ATTENDANCE FOR THE HIGH COUNTRY MANUFACTURING & WELDING CAREER PATHWAY MEETINGS									
FocusG rp#	Sec	First Name	Last Name	Title	Organization/Company	E-mail	Phone Number	12/6/2017	24-Jan	21-Feb
1	Comm	Felicia	Culbreath-Setzer	ROD	Dept of Commerce	felicia.setzer@nccommerce.com	(828) 466-5535	yes	yes	yes
1	Comm	Vanessa	James	FOI Rep	Former Offender Initiative Dept of Com	vanessa.james@nccommerce.com			yes	
	Comm	Shane	Fox	Executive Director	HCCOG	sfox@regiond.org	(828) 265-5434	yes		
1	Comm	Misty	Bishop-Price	NCWorks Operations Manager	High Country WDB				yes	yes
3	Comm	Rebecca	Bloomquist	Comm & Bus. Svc. Coordinator	High Country WDB	rebecca.bloomquist@highcountrywdb.com	(828) 265-5434	yes	yes	yes
3	Comm	Aimee	Moore	Financial & Compliance Specialist	High Country WDB	aimee.moore@highcountrywdb.com	(828) 2655434	yes	yes	
1	Comm	Keith	Deveraux	Director	High Country workforce Development B	_ ,	(828) 265-5434	yes	yes	yes
1	Comm	Pam	Wilson	Center Manager	Mayland Community College/ NCWorks	-	(828) 6826618	yes	yes	
1	Comm	Greg	Wade	Manager	MCWorks Career Center	greggory.wade@nccommerce.com	(336) 838-5164	yes	yes	yes
1	Comm	Andrew	Holland	Local Veteran Employment Rep	NC DWS	william.holland@nccommerce.com	(336) 838-5164	yes	yes	yes
2	Comm	Leslie	Hartman	Rehabilitation Engineer	NC Vocational Rehabilitation	leslie.hartman@dhhs.nc.gov	(828) 265-5396	yes	yes	yes
3	Comm	Ida	McNiel-Isaacs		NC Vocational Rehabilitation				yes	yes
3	Comm	Jim	Stout	Business Relations Representative	NC Vocational Rehabilitation	jim.stout@dhhs.nc.gov	(828) 7190682	no	yes	yes
	Comm	Scott	Panagrosso	Career Pathways Facilitator	NCWorks	scott.panagrosso@nccommerce.com	(910) 486-1010	yes		
2	Comm	Patricia	Thompson	Career Pathway Facilitator	NCWorks	patricia.thompson@nccommerce.com	(919) 3067073	yes		yes
2	Comm	Anita	Lowe	Manager	NCWorks Career Center / DWS	anita.lowe@nccommerce.com	828/265-5385	yes	yes	yes
3	Comm	John	Greene	Business Services Representative	NCWorks Career Center/Mayland Comm	i john.l.greene@averycountync.gov	(828) 737-5419	yes		yes
1	Comm	kathleen	Hoagland	Project Director	ResCare	kathleen.hoagland@rescare.com	(704) 402-5984	yes	yes	yes
	Comm	Joe	Furman	Director	Watauga County Office of Economic Dev	/ joe.furman@watgov.org	(828) 264-3082	yes		
1	Edu	John	Boyd	President	Mayland CC				yes	
2	Edu	Melissa	Weaver	_	Alleghany County Schools				yes	
1	Edu	D Terry	Rawls	Executive Director	Appalachian State University	rawlsdt@appstate.edu	(415) 515-7700	yes	yes	
2	Edu	Jeff	Holman	Director, Mfg Program	CCC&TI	jholman@cccti.edu	828/292-9660	yes	yes	yes
1	Edu	Ricky	Shew	Director, Employer Services, WBL	CCC&TI	rshew@cccti.;edu	828/759-4635	yes	yes	yes
	Edu	Lyndell	Duvall	CoordApplied Eng. Tech. Program	Mayland Community College	lduvall@mayland.edu	(828) 766-1378	yes		
1	Edu	Chris	Bare	Chair, Workforce Development	Wilkes Community College	cdbare782@wilkescc.edu	(336) 838-6405		yes	yes
3	Edu	Robin	Keller	Chair of College Readiness	Wilkes Community College	mrkeller576@wilkescc.edu	(336) 903-3236	yes	yes	yes
2	Edu	Ricky	Roten	Coordinator Business & Ind. Training	Wilkes Community College	ricky.roten@wilkescc.edu	(336) 838-6113	yes	yes	yes
2	Edu	Debbie	Woodard	Dean, College Readiness	Wilkes Community College	drwoodard792@wilkescc.edu	(336) 903-3231	yes		
3	Edu	Charles (Heath)	Vogler	Dir. of Secondary/CTE Curriculum	Alleghany County Schools					yes
3	Edu	Heath	Vogler	CTE Director	Alleghany County Schools	heath.vogler@alleghany.k12.nc.us	(336) 3724345	yes		yes
1	Edu	Joallen	Lowder	CTE Director	Ashe County schools	joallen@ashe.k12.nc.us	(336) 846-2400 ext 241	17	yes	yes
3	Edu	Steven	Scott	Career Development Coordinator	Ashe County Schools				yes	yes
2	Edu	Kim	Davis	CTE/STEM Director	Avery County Schools	kimdavis@averyschools.net	(828) 733-0151	yes	yes	
3	Edu	Tierra	Stark	Assistant Principal & CTE Director	Watauga County Schools				yes	
1	Edu	Wayne	Shepherd	CTE Director	Wilkes Co Schools	shepherdj@wilkes.k12.nc.us		yes		yes
1	Edu	Cynthia	Deyton	CTE Director	Yancey County Schools	cbdeyton@yanceync.net	(828) 682-1624	yes	yes	
2	Edu	Renee	McCurry	Career Development Coordinator	Yancey County Schools	mrmccurry@yanceync.net	(828) 6826103	yes	yes	yes
1	Emp	Sue	Miller	HR Manager	AEV	sue.miller@aev.com	(336) 846-8010	yes	yes	yes
1	Emp	Bryan	Peterson	HR Mgr.	Altec Industries Inc.	bryan.peterson@altec.com	(828) 208-4054	yes		yes
3	Emp	Richard	Gambill	HR Sr. Business Partner	BRP US, Inc.	richard.gambill@brp.com	(828) 7661180	yes	yes	yes

FocusG rp #	Sec	First Name	Last Name	Title	Organization/Company	E-mail	Phone Number	12/6/2017	24-Jan	21-Feb
1	Emp	Claudia	Honeycutt	Sales and Marketing Director	Buck Stove	choneycutt@buckstove.com	(828) 765-6144	yes		
1	Emp	John	Lyons	Plant Leader	General Electric	john.lyons@ge.com	(828) 545-5706	yes	yes	
	Emp	Travis	Ritchie	GE HR Leader	General Electric	travis.ritchie@ge.com	(336) 246-1725	yes		
2	Emp	Renee	Gibbs	Supervisor	Hickory Springs Mfg				yes	
3	Emp	Hayden	Gibson	HR Specialist	Hospitality Mints, LLC	hgibson@hospitalitymints.com	(828) 264-3045	yes	yes	yes
3	Emp	Donna	Jones	Director of Administration	Hospitality Mints, LLC	djones@hospitalitymints.com	(828) 264-3045	yes		
1	Emp	Jeremy	Newsom	Production Manager	Jeld Wen	jnewsom@jeldwen.com	(336) 4664646	yes		
2	Emp	Sue	Banks	Admin. Asst - HR, Safety, Budget	Leviton	sbanks@leviton.com	(336) 84634246	yes	yes	yes
1	Emp	April	Payne	Office Administrator	Louisiana Pacific				yes	
	Emp	Lakesha	Brooks	Regional HR Manager	LP Corp	lakesha.brooks@lpcorp.com	336/696-3470	yes		
1	Emp	Courtney	Bennett	HR Director	Napco	courtney_bennett@napcousa.com	(336) 372-1221	yes	yes	
3	Emp	Michael	Bloomquist	HR Director	PSG Custom Fabrication LLC	mbloomquist@uscorpmail.com	(828) 2646198	yes	yes	yes
3	Emp	John	Brown	Production Manager	United Chemi-Con	jbrown@chemi-con.com	(336) 384-2551	yes	yes	yes
2	Emp	Sandra	Calhoun	HR Manager	United Chemi-Con	scalhoun@chemi-con.com	(336) 384-6903	yes	yes	yes
1	Emp	Steve	Katz	Plant Manager/Director	United Chemi-Con	skatz@chemi-con.com	336/384-6918	yes		yes

High Country Focus Group Participants by Group

FOCUS GROUP I

Employer Engagement, Career Awareness and Collaborative

Industry Partners	Education Partners	Community Partners
Sue Miller	D Terry Rawls	Felicia Culbreath-Setzer
Bryan Peterson	Joallen Lowder	Vanessa James
Claudia Honeycutt	Ricky Shew	Misty Bishop-Price
John Lyons	John Boyd	Keith Deveraux
Jeremy Newsom	Wayne Shepherd	Pam Wilson
April Payne	Chris Bare	Greg Wade
Courtney Bennett	Cynthia Deyton	Andrew Holland
Steve Katz		Kathleen Hoagland

FOCUS GROUP II

Articulation & Coordination, Work-based Learning and Multiple Points of Entry & Exit

Industry Partners	Education Partners	Community Partners
Renee Gibbs	Melissa Weaver	Leslie Hartman
Sue Banks	Kim Davis	Patricia Thompson
Sandra Calhoun	Jeff Holman	Anita Lowe
	Ricky Roten	
	Debbie Woodard	
	Renee McCurry	

FOCUS GROUP III Demand Driven & Data-Informed, Evaluation

Industry Partners	Education Partners	Community Partners
Richard Gambill	Charles (Heath) Vogler	Rebecca Bloomquist
Hayden Gibson	Steven Scott	Aimee Moore
Donna Jones	Tierra Stark	Ida McNiel-Isaacs
John Brown	Robin Keller	Jim Stout
		John Greene

Sophomore Schedule

Altec - Kim Higgins

Methodist Family Life Center - Samantha Briggs, Donna Banks, Teena
Fox, Cynthia Deyton, Xan Robinson, Joni Hughes

Mayland - Ronnie Randolph

Group 1 (44 Students): Bus Driver - (J. Pope - #137) Homerooms: Brian Hill, Alexandra Meyer, Sallie Senseney

8:45	Leave Mountain Heritage for financial session
9:00 - 11:00	Session at Methodist Life Center- Money Smart
11:10 - 11:40	Lunch at school
11:40	Leave for Mayland
11:45 - 12:30	Mayland Session 1- Soft Skills Workshop and tour of Advanced Manufacturing Center
12:30 - 1:15	Mayland Session 2
1:25 - 2:50	Altec
3:00	Arrive back at school

Group 2 (36 Students): Bus Driver - Thomas Surber (Bus #110) Homerooms: Cindy King, Thomas Surber

8:45	Leave Mountain Heritage for financial session
9:00 - 11:00 Session at Methodist Life Center	
11:10 - 11:40	Lunch at school
11:40	Leave for Altec
11:45 - 1:15	Altec
1:20 - 2:05	Mayland Session 1
2:05 - 2:50	Mayland Session 2
2:55	Arrive back at school

Group 3 (46 Students): Bus Driver - (J. Dotts Bus #115) Homerooms: Shannon Oesch, Malena Robinson, Shanna Winters

8:25	Leave Mountain Heritage for Mayland		
8:30 - 9:15	Mayland Session 1		
9:15 - 10:00	Mayland Session 2		
10:10 - 11:40	Altec		
11:45 - 12:15	Lunch at school		
12:20	Leave for financial session		
12:30 - 2:30	Session at Methodist Life Center		
2:40	Arrive back at school		

Group 4 (36 Students): Bus Driver - Luke Hoilman (Bus #121) Homerooms: Tressa Hartsell, Luke Hoilman

8:25	Leave Mountain Heritage for Altec
8:30 - 10:00	Altec
10:10 - 10:55	Mayland Session 1
10:55 - 11:40	Mayland Session 2
11:45 - 12:15	Lunch at school
12:20	Leave for financial session
12:30 - 2:30	Session at Methodist Life Center
2:40	Arrive back at school

Exhibit 3D

Community College Day

Press Conference

with Northwest Prosperity Zone community colleges

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Topic: The Economic Impact of Community Colleges in our Region

Learn how community colleges are impacting the economic vitality of the Northwest Prosperity Zone, with a strong focus on advanced manufacturing.

Presenters:

Dr. John Boyd, president, Mayland Community College

Dr. Jeff Cox, president, and Travis Ritchie, GE Aviation, Wilkes Community College

Dr. John D. Gossett, president, and Jerry Broome, Isothermal Planning and Development Commission, McDowell Technical Community College

Dr. Michael S. Helmick, president, Western Piedmont Community College

Dr. Keith Mackie, executive vice president, Catawba Valley Community College

Deborah Murray, executive director, Caldwell County Economic Development Commission, presenting on behalf of Caldwell Community College & Technical Institute

March 20, 2017 10 a.m. - 11:30 a.m.

The Walker Center on the campus of Wilkes Community College

Directions: 1328 S. Collegiate Drive, Wilkesboro, NC 28697 (Upper Campus)
Follow Hwy 421 to Exit 286-B (Wilkes Community College exit). At light, take Hwy 268 west.
Travel through two traffic lights (at School Street and Collegiate Drive). Take the second college entrance, WCC Walker Center entrance, on the left. This is Meadowview Drive.
Meadowview Drive leads you to The Walker Center.

Community College Day will be celebrated statewide on March 29, 2017.



















BUSINESS AND INDUSTRY EDUCATION FORUM

Date/Time: November 16, 2016

12:00 - 1:30 PM

Location: Wilkes County Schools

Stone Center

	÷	<u> </u>
Welcome	 Lunch provided by WCS CTE Department CTE Vision & Mission 	-Wayne Shepherd (5 min.)
Old Business	 2016-2017 Primary Focus for CTE To promote existing programs To explore hiring adjuncts in Fire Fighting Respond to feedback from past meetings Project ADMIT update 	-Wayne Shepherd (10 min.)
New Business	Other CTE updates CTE Website Virtual Career Center CTE Newsletter Internship progress	- Amber Falise (15 min.) - Tanner Bailey (5 min.)
Discussion	Questions & Answers:	-Attendees (5 min.)
Adjourn	 Leave completed surveys, internship information, WRC, etc. on the table. Please join us at West Wilkes High School (new ADMIT bldg. is located in the back) 	-Wayne Shepherd (5 min.)

Next Meeting: April, 2017

Location:

TBD









Pre-Apprenticeship Registered Apprenticeship for High School Youth

- Model is unique to North Carolina according to RTI Research Group
- Developed in the 1980-90's by European Industry leaders
- Based on a combination of their collective experiences as apprentices in Switzerland and Germany



Pre-Apprenticeship

- •leads to a registered apprenticeship program
- prepares youth to enter and succeed in registered apprenticeship programs
- does not commit the company to the preapprentice if the fit is not there





Am I ready for an apprenticeship?

Do I like this kind of work?

Is this company a good fit for me?

Where do my skills fit best in this company?





Is this student ready for an apprenticeship?

Is our company a good fit for them and are they a good fit for us?

Where do their skills fit best in this company?



If the answer is YES and the skill set fits...





If the answer is NO and the skills are not a match...







Today's Topics:

- ☐ Return on investment (ROI): Working with high school youth
- □ Advantages of implementing a pre-apprenticeship-toregistered apprenticeship program
- ☐ How youth apprenticeship creates a pipeline
- Overcoming barriers to working with youth
- ☐ A model for recruiting and selecting youth apprentices



Return on Investment

Research suggests: Most companies believe they cannot afford to commit the time or resources to a pre-apprenticeship program, but actually have never developed metrics to evaluate benefit/cost.



1

2016 ROI Study of 13 Companies Found:

benefits of a youth program are immeasurable





Youth Apprentices start at a low wage scale and progress their wage as skills increase

- Most are so productive in their second year of Apprenticeship they are making money for the company and mentoring new apprentices
- Research studies say that for every dollar spent on training, an employer receives a benefit, on average of \$1.47 up to \$2.00





1











How Does a Pre-Apprenticeship to Registered Apprenticeship Program Create a Pipeline?



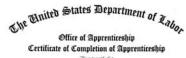
"In successful communities, there is a direct correlation between students' achievements beyond high school and the investment local partners make in their young people." –Texas Gear Up Program

1

Students stay with a company because they benefit from:



Students stay with a company because they benefit from:



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Students stay with a company because they see:

The end result of the career pathway and opportunity for leadership and advancement within the company/industry



*

Discipline

Overcoming Barriers to Working with High School Students

Under 18 Policies

Child Labor Laws

Liability

Covered by school work-based learning insurance and the company

Safety

Built into the Apprenticeship

Maturity

Part of the screening process





it with the school district

Youth Pre Apprentice Recruiting, Screening and Testing

- Educator Awareness
- Recruiting
- Applicant Review
- College Placement
- Orientation
- Testing
- Pre Apprenticeship
- Signing Ceremony



- Educator Awareness luncheon
- CTE Teachers, Principals at targeted schools
- Hosted by sponsor companies at a manufacturing facility with a plant tour















NE



• Recruiting at targeted high schools by sponsor companies









- Student takes college placement test
- It is the students responsibility to schedule and take the placement test
- Student supplies placement test scores to sponsor company







Created and distributed to schools by the company or consortium and used to select students for the orientation.







April 4-8 PM

Day 1

- Review Agenda for week
- Discuss and sign rules contract
- Technical Math
- Metric to English conversion methods
- Homework assignment
- Measuring Tools



Orientation and Testing



• Project commencement





Orientation and Testing







- Project completion
 - Final Assembly
 - Project Evaluation





- Testing
 - Ramsey Mechanical Aptitude (example)
 - Custom Tests
 - Predictive Index











Pre Apprenticeship
June-July



Committee convenes to rank applicants and determine pre-apprenticeship participants.





- 6 Week length
 - No obligations week of July 4th
- 2 Classes at Community College
 - Industry Safety (30 hour OSHA)
 - Intro Course
- Employer placement for on-the-job learning through out the company









Apprenticeship Signing Ceremony August



Apprenticeship committee convenes to determine apprenticeship placements





Sponsors host a signing ceremony Parents and dignitaries are invited Students sign a letter of commitment





Pre-Apprenticeship Requirements

(Summer, 2018)

To qualify for a "pre-apprenticeship"... all applicants must meet the following criteria:

- Submit a pre-apprenticeship application prior to the deadline (April 13, 2018)
- Have completed their junior year in high-school
- Be eligible to participate in the Career and College Promise program their senior year of high school
- Be at least 16 years of age
- Possess a valid NC driver's license and have a reliable means of transportation
- Be in good academic standing, and making satisfactory progress toward high school graduation
- Be able to pass any related technical skills tests deemed appropriate by the sponsoring agency
- Pass a background / drug screen (if required)
- Submit three (3) teacher/principal recommendations (attached)
- Attend pre-apprenticeship orientation sessions (at least 1 parent/guardian must accompany the applicant)
- Participate in the pre-apprenticeship interview process
- Possess the ultimate goal of being selected as an "Adult Apprentice" at the sponsoring agency performing duties specifically related to the pre-apprenticeship program.

Summer Pre-Apprenticeship requirements include:

1) Satisfactorily completing the following courses at WCC (unless already completed in HS):

(<u>All pre-apprentices</u>)
ISC 112 – Industrial Safety

(<u>Pre-apprentices in Information Technology jobs</u>) CTI 110 – Web, Pgm, & Database Foundation ... or CTS 120 – Hardware / Software Support (<u>Pre-apprentices in Manufacturing jobs</u>)
MEC 111 – Machine Processes 1
... or BPR 111 – Blueprint Reading

- 2) Completing a minimum of 120 on-the-job training hours during the summer prior to the senior year in high school. This includes:
 - Committing the weeks of June 11-29 and July 9-27 to the program.
 - Working under the supervision of a mentor at the sponsoring agency a minimum of 20 hours per week for the duration of the six week program.
 - Being paid minimum wage while participating in the pre-apprenticeship program. (*Pre-apprentices are paid while in class at WCC and while at work*)

Local Companies seeking Pre-Apprentices... and the number available this summer:

Manufacturing: Meadows Mills (1 Manual Machinist, 1 Machine Builder)

Gardner Glass (2 Industrial Maintenance Technicians)

East Coast Mill Distributors (? Industrial Maintenance Technician)

Jeld-Wen (2 Industrial Maintenance Technicians)

Information Technology: Infusion Points (1 Cyber Security Specialist, 1 Graphic Designer)

Interflex Group (1 Pre-Press Operator, 1 Industrial Maintenance Technician)

Wilkes Communications (1 Customer Service Representative,

1 Computer Support Specialists, 1 Network Support Technician)

NOTE: In order to keep all "pre-apprenticeships" under one umbrella, I thought it would be best to group

everyone in one of two general categories (Manufacturing and Information Technology). Obviously, the plans for the "apprenticeship" will be much more

specific to your needs.

Please let me know if the following timeline works for you!

Proposed date for submitting DRAFT of the pre-apprenticeship plan to Sherry Phelps: Jan. 31

Proposed dates for advertising pre-apprenticeship opportunities/requirements: Month of March

Proposed Pre-Apprenticeship Orientation Schedule:

Parent Information Session @ Stone Ctr. – March 29 (6:00 pm)

Meadows Mills – Monday, April 9 (6:00 – 7:00 pm)

Gardner Glass – Tuesday, April 10 (6:00 – 7:00 pm)

ECMD – Thursday, April 12 (6:00 – 7:00 pm)

Jeld-Wen – Friday, April 13 (6:00 – 7:00 pm)

Infusion Points – Monday, April 9 (6:00 pm)

Interflex Group – Tuesday, April 10 (6:00 pm)

Wilkes Communications – Thursday, April 12 (6:00 pm)

Proposed dates for Companies to Conduct Interviews: April 16-20

Proposed dates for extending offers to students selected for pre-apprenticeships: April 27

Deadline for students to accept or decline offer: April 30

PRE-APPRENTICESHIP APPLICATION

Name			Date of Birth	
(Last)	(First)	(Middle)		

Home Address			
Pre-Apprenticeship Area	High School		
Courses Completed Related to this Pre-Apprenticeship	Year Completed		
Course:	9 10 11		
Course:	9 10 11		
Employment Record: Please list any prior employment his	etory, beginning with the most recent		
Place of Employment Supervisor's Name Job Duties	Address Reason for leaving Dates of Employment		
Place of Employment Supervisor's Name Job Duties	Address Reason for leaving Dates of Employment		
What career do you plan to pursue?			
What are your education plans after high school?			
List school and community activities:			
Will the above activities affect your ability to complete pre-app	prenticeship requirements? YES NO		
(If you answered YES above, please explain			
Why do you want to be considered for the Youth Pre-Apprentic	ceship Program?		
How is this Pre-Apprenticeship related to your career goals? _			
What skills/abilities will you bring to this program/company?			
Please include a copy of your high school transcript with th	is application to verify your eligibility for the program.		
My signature below verifies that the above information is corresposition that I am responsible for abiding by the sponsoring agown transportation both to WCC (for class) and to the apprentiagency to review my academic records to verify that I am main	encies policies and procedures. I understand that I must provide my ceship site. In addition, I give permission for my sponsoring		
Student Signature	Parent / Guardian Signature		

Wilkes County Schools does not discriminate against any person on the basis of race, color, creed, religion, sex, national origin, age, or disability in any of its educational or employment programs or activities.

Pre-Apprenticeship Teacher/Principal Recommendation:

Section 1: (*To be completed by the applicant*)

Student's Name:				
	(Last)	(First)	(Middle)	
Pre-Apprenticeship Position	n:			
Sponsoring Agency / Comp	oany:			
Section 2: (To be completed	d by the person	n providing the recomm	endation)	
-	committee rec	quests that you CAREI	commendation process, the Pre- FULLY read the following statement idate's application.	nts
Likewise, I believe this studin prospective employees. I respect, and is able to accept	dent possesses affirm that the ot constructive and this student	the characteristics and of e above named student a criticism in a positive a be given the opportunit	ne Wilkes County School system. qualities that most hiring managers locattends school regularly, treats others and productive manner. It is without by to participate in the pre-apprentices assistance."	with
Teacher / Principal Signature		Position	Date	-
Phone:		Email:		-
"Unfortunately, I am not ab	le to recomme	end the above named stu	dent for a pre-apprenticeship at this t	time."
Teacher / Principal Signature		Position	Date	-
Phone:		Email:		_

To maintain confidentiality, please return this form to the applicant in a sealed envelope (signed across the seal). (*This form must be included with the application*).

Demand for worker training up

Jule Hubbard | Posted: Friday, November 24, 2017 12:00 pm

Wilkes Community College has recently seen a significant increase in demand for customized employee training at manufacturing operations in Wilkes, Ashe and Alleghany counties.

Chris Robinson, WCC vice president of workforce development and community education, said the trend is largely due to an uptick in local industrial and other business activity and employers making preparations to fill jobs as more people retire.

"We have an aging workforce so we're out trying to help them (employers) do succession planning and bring skill levels of their incumbent workers up so that when people retire, they can move those (retrained) people into those positions," said Robinson during a Wilkes Economic Development Corp. (EDC) board meeting on Nov. 3.

"We think that is perhaps more important than new jobs because retention focuses on not losing the jobs that we have. We have been real fortunate to be able to do that," said Robinson.

Customized training is underway for Tyson Foods Inc., Herbal Ingenuity and Worldwide Protective Products, all in Wilkesboro; Plycem USA in Roaring River; Leviton Manufacturing in West Jefferson and Pioneer Eclipse in Sparta.

This training has been requested and is being developed by WCC for Interflex in Wilkesboro, United Chemi-Con in Lansing and GE Aviation in West Jefferson.

"That's pretty good because two years ago we had two" customized training projects underway, said Robinson.

Interflex's philosophy is to upgrade skills of its current workforce and promote from within to ensure future growth and stability, according to a written description of the training projects. Leadership, electromechanical, computer and efficiency training valued at \$50,000 is planned at Interflex, which employs about 150 people in Wilkesboro.

Interflex produces flexible packaging products for Tyson Foods Inc. and other companies and recently underwent a major expansion in Wilkesboro.

An aging workforce is a significant challenge for United Chemi-Con, according to the written description. Efficiency, leadership, safety, electromechnical and other training there, valued at about \$30,000, is related to efforts to promote from within and also equipment upgrades, said Chris Bare, WCC chairman of workforce development. The company employs about 135 people in Ashe.

"In our region, the west and northwest, I think we're second only to AB (Asheville-Buncombe) Tech in the number of (worker training) programs," said Bare.

He said customized training involves meeting with company representatives to determine their workforce needs and how to meet them. It's provided at no charge to employers and is mostly on-site.

The largest of the six training projects underway is for additional jobs at the Tyson Foods Inc. chicken processing complex in Wilkesboro. The number of new Tyson jobs wasn't stated, but over 3,000 people work at the Wilkesboro complex.

The training at Tyson is for enhancing supervisory skills, cultural awareness, ammonia refrigeration equipment maintenance, electricity, print reading, hydraulics/pneumatics and efficiency processes. This training, valued at \$331,761, continues through 2020.

Training in preventive maintenance, mechanical print reading, industrial electricity, hydraulics/pneumatics, efficiency processes and other areas is underway through 2019 at Plycem, which makes and distributes fiber cement exterior building products. The value of the training is estimated at \$171,821.

Training at Worldwide Protective Products, which makes cut-resistant gloves and sleeves and employs 180 people here, is valued at \$31,502. It includes manager skills, efficiency, basic electricity, hydraulics/pneumatics, safety and more.

Training at Herbal Ingenuity on Old N.C. 18 in Wilkesboro through 2018, valued at \$10,426, is designed to help the company meet requirements of the Food Safety Modernization Act. Herbal Ingenuity cleans, sorts and processes raw botanical materials for various uses.

Efficiency, process mapping and productivity training underway at Pioneer Eclipse is designed to improve productivity in anticipation of growth. The training is valued at \$46,778.

Skills upgrades for operators and a supervisor at Leviton's "town plant," valued at \$20,757, is underway through 2020. The plant employs about 90 people and makes electrical wiring devices and home automation devices.

WCC is providing training on a smaller scale at Gardner Glass Products in North Wilkesboro, Lowe's companies Inc. in Wilkesboro and elsewhere.

Robinson said his goals in the last two years included increasing flexibility of WCC workforce development staff so they can provide more of the worker training instead of using adjunct faculty members or contracted vendors.

He said it used to take around six weeks to find someone to provide requested training, "but now we can probably do it tomorrow."

Robinson also said EDC President Dan Little and Vice President Robin Hamby are great resources and are often called on for input on employee training plans.

Career tech ed gets boost

Photo courtesy of Wilkes County Schools

A \$75,000 grant has been awarded to enhance career and technical education (CTE) in the Wilkes County schools.

The funding is from the N.C. Workforce Development partnership, consisting of the N.C. Department of Public Instruction, N.C. Community College System and N.C. Department of Commerce. According to the N.C. Workforce Development website, the grants are awarded to reward local partnerships with positive outcomes through successful implementation of career pathways for students.

A partnership consisting of the Wilkes school system, Wilkes Community College, government agencies, local businesses and private contributors has been working for two years to develop career pathways with courses related to Project ADMIT, said Wayne Shepherd, CTE director for the Wilkes schools.

ADMIT stands for Advancing Development in Manufacturing and Integrated Technology. Related courses include engineering, CNC machining, computer programming and advanced manufacturing. Shepherd said many introduce students to concepts like automation, mechatronics and robotics.

He said approved career pathways are based on a framework that includes demand driven and data informed career paths, employer engagement, collaboration, articulation and coordination, work-based learning, multiple entry and exit points including industry recognized credentials, career awareness and comprehensive career advising and support services and methods of evaluating pathway success.

Shepherd said part of the grant will be used to further align pathways related to Project ADMIT. This includes funds to provide each middle school technology teacher with remote control "urban search and rescue" robots to use with technology, engineering and design students.

These are the same four-wheeled robots that high school students have built and competed with in advanced manufacturing classes for the past two years. They're also used in SkillsUSA competitions. Shepherd said he hopes they will spur more interest in SkillsUSA in the middle schools.

"Extending these learning opportunities to middle school students adds another level of rigor to their curriculum, while at the same time helping students and teachers see the connectedness of the two programs," said Shepherd.

The grant will also fund computer science training for all middle school business education teachers to better align middle and high school curriculum with needs of business and industry. This includes instruction in multimedia, automation, gaming and computer design and is directly aligned with a new digital media pathway being

developed by Wilkes school and WCC personnel.

The grant will fund efforts to increase CTE participation of students for whom English is a second language. Shepherd said this includes hiring a person to work part-time as a translator to help communicate with Spanish speaking students and their parents about the benefits of taking courses consistent with a particular pathway and of participating in the Career and College Program.

He said teachers and counselors work hard to offer academic advising to students, but it's not communicated the same way at home. "Having someone to consistently communicate the importance of post-secondary training, and how to affordably access it will help level the playing field for many families in Wilkes County," he said.

The \$75,000 grant includes \$25,000 to WCC to purchase four laptop computers and hire more Career and College Promise instructors. Shepherd said this will help WCC offer more courses in each of the respective pathways.

Last year, which was Project ADMIT's first full year, 412 Wilkes high school students enrolled in engineering related pathways and 220 enrolled in computer integration pathways. Nine students had internships with local companies related to one of these two areas.

He said 29 students earned industry recognized credentials, documenting their mastery of required skills for employment in certain related career fields.

Wilkes Journal Patriot newspaper August 15, 2017

4. Career Awareness

There are various opportunities throughout the region that offer the opportunity for exposure to and awareness of the manufacturing career pathway. Local schools, colleges, universities, and partners participate in a number of career awareness initiatives that engage youth and adults. While the following list is not inclusive of all activities and partnerships, it is representative of the vast amount of time and emphasis dedicated to these types of services.

Mayland Community College Anspach Advanced Manufacturing Center

To meet the local need of a trained workforce and support of the growing industry Mayland Community College opened their Advanced Manufacturing Center in Yancey County in 2015 (Exhibit 4A). The center provides state of art opportunities for students to train in skills required in today's manufacturing sector.

The Anspach Advanced Manufacturing School, a 13,000 square-foot addition at Mayland Community College, consists of classrooms and offices where students are offered a degree program in Applied Engineering with skill tracks in CNC programming, machining, robotics, mechatronics, and design. The facility also houses Direct Metal Laser Sintering (DMLS) technology, allowing students, industries, and entrepreneurs to create metal 3D prototypes of their designs.

While attending the opening ceremony, Governor Pat McCrory was quoted as saying,





Local secondary school students also visit the center annually as part of career exploration opportunities.

Educational Partnerships

Project ADMIT (Advanced Development in Manufacturing & Integrated Technology) is a local initiative in Wilkes County with the following objectives for addressing the workforce needs:

- Will Create Advanced Learning Environment by adding/improving classrooms and lab space and purchasing equipment for all 4 high schools
- Offers Concentrated Programming for Advanced Engineering and Computer Technology training to prepare the next generation workforce
- Expands Learning Opportunities in Welding, Transportation, and Building Construction
- Builds on Partnerships between Wilkes County Schools & Wilkes Community College
- Provides Options for students to choose and redirect career paths and allows a seamless transition from high school to college
- Addresses the Real World Skill Area Needs expressed by employers leading to certificates, diplomas, and industry certifications
- Provides Opportunities for local youth to live, work and create personal wealth in Wilkes County after graduation

BIEF, the Business, Industry and Education Forum is a local initiative developed to assist business and industry with employment needs and develop strategies to strengthen the workforce. BIEF programs raise awareness of training programs and partner with employers and the community.

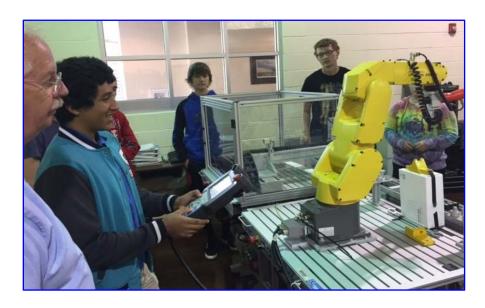
Career Fairs and Awareness Activities

Two hundred and twenty-one freshman spent time at the Manufacturing Career Fair learning from different businesses and careers associated with manufacturing on Monday, December 5th, 2016 at the first Wilkes Central Career Fair. Nine manufacturers from Alexander, Wilkes, and Surry were represented which included Allura, Craftmaster Furniture, Gardner Glass Products, Meadows Mills, LuRay Textiles, Weyerhauser, Schneider Mills, Tyson, and Anchor Coffee Company. Representatives from Wilkes Community College were also in attendance to talk to the students. Upperclassmen were also given the opportunity to visit and talk with the representatives during their Smart Lunch.



Advanced Manufacturing & STEM Awareness Week Activities (Fall 2016) A Partnership with Wilkes Community College and Local Industry Representatives

Advanced Manufacturing 1 and Technology, Engineering & Design students from all four high schools visited Wilkes Community College on October 5th to discover training and career opportunities in the fields of advanced manufacturing and applied engineering. Students were involved in hands-on activities as they learned about related programs at Wilkes Community College and spoke with local industry representatives about career opportunities and workforce needs. Students learned about how manufacturing has evolved over the last several years to include more advanced technologies.



Other examples of career fairs and awareness activities through secondary education:

- Ashe activities include: in May of each year, Ashe holds a Career Fair that has over 70 "vendors" presenting information about their business/industry. 6th grade students come from the elementary schools to visit the career fair. All students have questionnaires that have to be filled out by 2 of the presenters. All ACHS teachers will be spending one day each semester at ACMS to promote their class at the high school and to inform students of the career associated with their pathway. A high school teacher is going to the elementary schools this year to do career awareness activities, working with 5th and 6th graders and with science teachers by incorporating STEM activities with their Standard Course of Study.
- Avery activities include: industry visits; teacher externships STEM tours to ZF
 Manufacturing Solutions, Century Furniture, and NC Center for Engineering
 Technologies; Extreme STEM tour field trips; guest speakers; technology competition;
 community college visits and speakers; field trips to NC State College of Design and
 Design Lab, and Extreme STEM field trip to Cabarrus County.
- Watauga County holds an annual Career Explorations Day where all career pathways are showcased for the 7th grade students of the county. This event allows Watauga County Schools to show the 7th grade students the skills and equipment related to the Manufacturing & Welding industry. The 8th grade students of Watauga County participate in a financial literacy program called "Reality Store" where they research chosen careers and then live off or pay bills with one month's pay for their chosen career.
- Wilkes activities include: middle and high school students participate in career interest inventories; Gear Up is a grant funded program that works with a cohort of students, those who are currently in grades 7-10, they provide a variety of career development lessons to students; CTE Director & Career Development Coordinator meet with all 8th graders at our 4 middle schools yearly to discuss career clusters/pathways, related high school CTE courses, Career & College Promise offerings as a way for student to understand the importance of academic planning through a meaningful career development plan; Elementary, Middle, and High School Counselors/Staff organize Career Fairs. Some showcase a variety of careers, while others showcase careers in a particular pathway. For example, Wilkes Central High School organized a Manufacturing Career Fair. High School Advanced Manufacturing students have toured Gardner Glass & Jeld Wen, both manufacturing companies in Wilkes. They also participate in Advanced Manufacturing Week (@ WCC) to learn about educational opportunities and careers. Middle School Counselors, High School Counselors, Gear Up Coordinators and Career Development Coordinator offer classroom guidance lesson on soft skills, interviewing skills, resume writing, career awareness, etc. For example, I even did a lesson on Advanced Manufacturing Careers."Demo Days" where advanced manufacturing classes were showcased in each high school to increase awareness of our Advanced Manufacturing Program. Annual Skills USA Competitions.

- Yancey plant tours of Altec and BRP.
- April 2018 Career Fair Wilkes Central High School
- February 2018 ACT Sophomore Project in Advanced Manufacturing -Tour of local manufacturing businesses and Center for Advanced Manufacturing Training facility at MCC. Soft skills and career awareness workshop provided by NCWorks staff.
- October 2017 Advanced Manufacturing Day at Yancey MCC area public schools tour manufacturing training programs and learn about local job opportunities.
- May 2017 Ashe Middle School Career Day
- April 2017 East Wilkes High School Advanced Manufacturing class took a business tour of Gardner Glass.
- April 2017 ACT Sophomore Project in Advanced Manufacturing- Tour of local manufacturing businesses and Center for Advanced Manufacturing Training facility at MCC. Soft skills and career awareness workshop provided by NCWorks staff.
- March 2017 Alleghany Manufacturing Day with student rotations with employers such as Tyson and GE Aviation.
- November 2016 Alleghany Career Fair
- October 2016 Wilkes Central High School Advanced Manufacturing students toured Gardner Glass where they learned about manufacturing process, workforce needs, and importance of soft skills.
- October 2016 Wilkes County Schools Advanced Manufacturing & STEM Awareness Week (Exhibit 4B)
- October 2016 Advanced Manufacturing Day at Yancey MCC area public schools tour
 Center for Advanced Manufacturing and learn about local job opportunities
- October 2016 Mountain Heritage High School Career Fair-includes all local manufacturing employers
- March 2016 Yancey ACT Sophomore Project in Advanced Manufacturing-Tour of local manufacturing businesses and Center for Advanced Manufacturing Training facility at MCC. Soft skills and career awareness workshop provided by NCWorks staff.



"Having the chance to complete the necessary coursework to land a position at GE Aviation is amazing. Being able to take classes during high school gave me the advantage and has really jump started my career. I would encourage all high school students to join Career and College Promise! (CCP)"



The opportunity for students to take advantage of Career and College Promise courses provide students a jump start on their training to a career.

Other examples of awareness activities through post-secondary education:

North Carolina Center for Engineering Technology Innovation Camps for 2018 (Exhibit 4C) include the following:

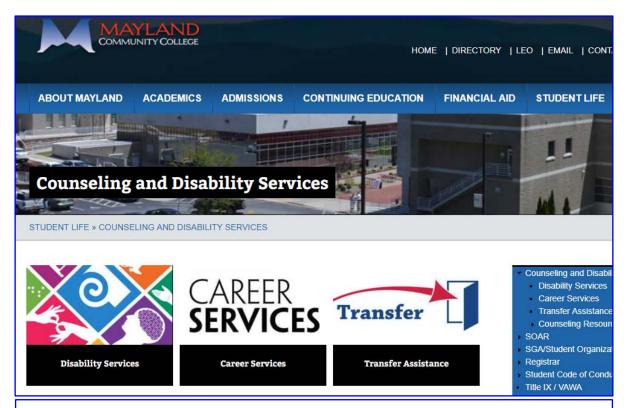
- Future Engineers Camp (Elementary & Middle School aged children);
- Robotics Camp (Middle School aged children) and
- Builders Boot Camp (Middle School aged children a new camp focused on construction sciences).



NC Manufacturing Week/Day

Validating the economic importance of the manufacturing industry, North Carolina declared October 2-6, 2017 as "North Carolina Manufacturing Week." Manufacturing week brings attention to the career paths and employers in the manufacturing sector. Locally, secondary and postsecondary schools usually host career awareness activities to include special events, recognizing employers, and bringing attention to training opportunities (Exhibit 4D)

Manufacturing Day is recognized as the first Friday in October as a day to recognize and celebrate modern manufacturing across the U.S. It is reported that Manufacturing Day events in 2016 increased student awareness as shown in Exhibit 4E.



Career Counseling Services

MCC has knowledgeable career counselors available to help you choose your career path. They understand the College's programs and can guide you through the career decision-making process. They will take time to listen and help you think through your options. Just call or email to schedule an appointment!

Doug Dewar, MCC Career Counselor Counseling and Disability Services Office Room 113, Gwaltney Building ddewar@mayland.edu 828-766-1256

Looking for a new career? Try Career Coach!

Career Coach is a free internet tool designed to help you choose a career path and plan your educational goals. It provides the most current local employment data on a wide variety of occupations and automatically links occupations to Mayland's educational programs!



Career Counseling Resources:

- Career Onestop
- · College Foundation of NC (CFNC)
- NC Health Careers
- Keirsey Personality Test
- NCWorks



Wilkes Community College

@WilkesCommunityColleg

Home

About

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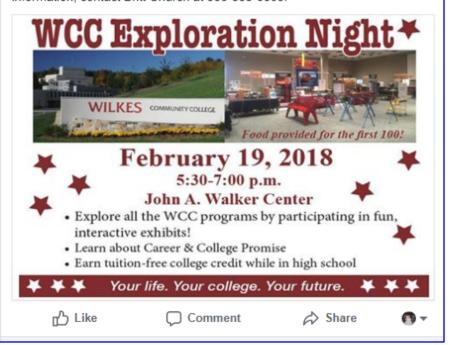
Community

Create a Page





Public Event - Wilkes Community College invites students and families to attend an evening of fun and engagement at the WCC Evening of Exploration on February 19 at the John A. Walker Center from 5:30 p.m. to 7:00 p.m. Food will be provided to the first 100. Come and hear about how through the Career & College Promise program, high school students can enroll in college courses for a minimal fee that can lead to college credits, credentials, and job training. Students will explore all the WCC program opportunities by participating in fun interactive exhibits. For more information, contact Britt Church at 336-838-6509.





WCC Career Services shared WCC Workforce Development and Community Education's post.

December 11, 2017 - @



Industrial Maintenance

This course is designed to provide the student with the skills necessary to become employed as a heating and air conditioning technician.

1/9/18 – 7/16/18 Tuesday, Thursday, 6pm-9pm Wilkes Campus

Contact: Jeff Shore at 336-838-6206 or wjshore321@wilkescc.edu.







WCC Career Services

February 13 at 2:39pm · 🚱

Job Flash! Maintenance Technician - Interflex Group, Wilkesboro, NC See job details at College Central link below.

To apply, please email resume to: zwatkins@interflexgroup.com or apply inperson at either of our two Wilkesboro plant locations: 251 Industrial Drive, or 3200 West NC Hwy 268.



College Central Network®

Check out Job #5388514 (Maintenance Technician) on College Central!

COLLEGECENTRAL.COM

80



Caldwell Community College and Technical Institute

February 24 at 12:25pm · 🚱

Watauga County parents and students - CCC&TI will host an Admissions Night from 5:30 p.m. to 7 p.m. on Thursday, March 8 at Watauga High School. A CCC&TI admissions counselor will be present to talk about enrollment, financial aid, disability services and much more



Admissions Night at Watauga High School for Students & Parents

Thursday, March 8 5:30 p.m. to 7 p.m. WHS Library

Appalachian

Career Development Center

STUDENTS & ALUMNI

FACULTY

PARENTS

EMPLOYERS

CareerFest

Event Calendar

Resume Clinic

Seeking Career Tips?

Watch videos on building resumes, preparing for interviews, landing your dream job, and more.



Looking for Work?

Browse new job postings, follow us on Twitter and sign in to Career Gear to find jobs for you!

Campus Career Events





INTERNSHIP FAIR

January 24, 2018 11am – 2pm Plemmons Student Union



RESUME CLINICS

February 12-20, 2018 11am - 1pm Plemmons Student Union



OUTDOOR JOBS FAIR

February 14, 2018 10am – 2pm Plemmons Student Union



CAREERFEST

February 21, 2018 1pm – 5pm Holmes Convocation Center

Staff Training/Engagement

NCWorks Career Center staff have participated in Career Pathway training to increase their knowledge in order to assist youth and adults in identifying and developing career pathways in the region (Exhibit 4F).

Staff are also engaging in employer meetings and tours to increase their awareness of employer needs and demands. In January 2017 staff toured Advanced Superabrasives and in May 2017 staff engaged in regional partners meeting with Duke Energy and CB&I Construction to discuss expansion project needs; and in 2018 are participating on advisory committees.



NCWorks Career Centers: Staff frequently plan and host job fairs each year in an effort to assist employers with their hiring needs. Staff also participate in special events in partnerships with local schools and assist in mock interviews and other career advising strategies. Employers utilize a variety of outreach efforts to include postings in NCWorks Online (see advertising examples Exhibit 4G).

NCWorks Job Fairs/Events	Participating Employers
March 2018	Phillips-Van Heusen (through Talent Force)
February 2018	United Chemi-Com
	Tyson
January 2018	JeldWen (through Randstad)
	Lydall (through Randstad)
December 2017	Phillips-Van Heusen (through Talent Force)
	JeldWen (through Randstad)
	Lydall (through Randstad)
November 2017	JeldWen (through Randstad)
	Lydall (through Randstad)
October 2017	Baxter's Healthcare
October 2017	American Emergency Vehicles JeldWen (through Randstad)
	Lydall (through Randstad)
	Altec
September 2017	LP Corp.
August 2017	LP Corp.
July 2017	JeldWen
June 2017	Tyson
	JeldWen (through Randstad)
	Lydall (through Randstad)
	Hickory Springs Manufacturing
May 2017	Tyson
	JeldWen (through Randstad)
A 11 2047	Lydall (through Randstad)
April 2017	JeldWen (through Randstad)
	Lydall (through Randstad) Tyson
	SMX
March 2017	NAPCO
	Kincaid Furniture
	SMS
	JeldWen (through Randstad)
	Lydall (through Randstad)
February 2017	JeldWen (through Randstad)
	Lydall (through Randstad)
January 2017	Workforce Unlimited
2016	Appalachian Terrior
	Unifi
	Multi-Employer Event
	Worldwide Protective Products LP Corp
	JeldWen (through Randstad)
	Lydall (through Randstad)
	Ly wan (an ough nandada)

\$2.4M advanced manufacturing school opens in Burnsville

Mike Cronin, mcronin@citizen-times.com

Students will learn engineering skills that will help address regional and national shortages.



Gov. Pat McCrory, second from right, awards The Order of the Long Leaf Pine, the highest honor a North Carolina governor can bestow on a state citizen, to Dr. William Anspach Jr., far right. Also pictured at left, Mayland Community College President John Boyd and state Sen. Ralph Hise, second from left. (Photo: Beth Morris/Mayland Community College/Special to the Citizen-Times)

BURNSVILLE – State and local dignitaries gathered here Monday to celebrate the opening of a \$2.4 million advanced manufacturing school at Mayland Community College's Yancey Learning Center.

"Manufacturing is back in North Carolina and it's the future of North Carolina," Gov. Pat McCrory said to about 200 people just outside the new building's front doors.

"We've always heard that manufacturing was dead, that we had to find something

new," McCrory told the crowd. "No. We gotta keep making, building and innovating things — and we gotta make sure we have the talent to do it."

Construction of the facility finished in February and 35 students already have begun training in vocations including machining and design, said Bill Baker, a board member of the community college's foundation.

Local company executives, elected officials and educators hope the Anspach Advanced Manufacturing Center will begin addressing the dearth of workers with engineering skills that regional and national employers seek, said Dr. William Anspach Jr.

"There are between 600,000 and 700,000 vacant jobs in our country that manufacturers can't fill because they can't find qualified workers," Anspach Jr. said.

He trained as an orthopedic surgeon, retired, then became an inventor and manufacturer of neurosurgical power tools.

The center bears Anspach's family name because the doctor and entrepreneur came up with the idea for the project four years ago and donated an undisclosed sum of money to help bring it to fruition, Baker said.

Many corporate and private donors also gave funding to make the training center a reality, said Beth Morris, a community college spokeswoman.

The Charlotte-based Duke Energy Foundation, for instance, gave \$250,000 for the purchase of a three-dimensional metal printer.

Mayland Community College will become only the third institute of higher education in Western North Carolina with that piece of high-tech equipment, said school President John Boyd.

"A student using it could take titanium dust and print off an artificial knee," Boyd said. "It's the kind of the thing that will help this center be able to provide the level of workforce we haven't been able to provide before."

Another example: graduates of the program will be able to offer employers experience in mechatronics — a method of manufacturing that combines mechanical engineering, computing and electronics, Boyd said.

That's great news to those such as Henry Street, plant manager at the BRP Spruce Pine factory.

The Quebec, Canada-based company designs and manufactures recreational vehicles including the Sea-Doo Watercraft and Can-Am Roadster.

"This type of facility will help us reduce the time (our products will get) to market," Street said.

BRP is among the private-sector companies that contributed money to the center, Street said.

The company is looking to fill between 30 and 40 openings that pay from \$12 an hour to \$22 an hour, he said.

To make sure BRP and other companies like it begin receiving and continue to receive the workers they need, McCrory said North Carolinians should show children the career options they have starting in middle school.

"We have to communicate to them that this is one of the choices they can make," the governor said. "They can learn a skill, a vocation, a trade, in addition to building their intellectual capability."

McCrory emphasized that type of training won't earn them "just jobs, but careers. That's what people want," he said.

The manufacturing industry in North Carolina accounted for 11.1 percent of total employment in the state in 2013, higher than the national figure of 9 percent, according to the most recent data available from the state Department of Commerce.

In rural areas, the total was even higher, at 15.1 percent.

Those jobs pay an annual wage of \$54,500 statewide, data showed.

Read or Share this story: http://avlne.ws/1FOo1OT

Published April 13, 2015 Asheville Citizen-Times

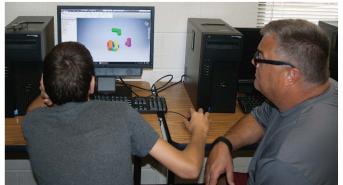
A Showcase of Career & Technical Education Courses

Advanced Manufacturing & STEM Awareness Week

October 3, 2016

ADVANCED MANUFACTURING

Advanced manufacturing careers are modern, sophisticated, and use cutting-edge technology to create products and services in fields such as aviation, communication, biotechnology and healthcare.



Mr. Wagoner's class (Adv. Manufacturing teacher at EWHS) is working on creating a cube using Autodesk Inventor.

Advanced Manufacturing I is the first part of a two part sequence on the basic functional knowledge and skills needed in the advanced manufacturing environment. This course covers introduction to manufacturing, safety, and quality and is based upon the Manufacturing Skills Standards Council's (MSSC) Certified Production Technicians certification (CPT). CPT is recognized by manufacturers in NC and the USA as a fundamental certification needed by

advanced manufacturing production workers. Topics in this course include: 21st century skills, working in manufacturing, understanding customers' needs, communication strategies, how to develop and deliver training, manufacturing safety, personal protective equipment, fire and electrical safety, blueprint reading, basic measurements, precision tools, quality systems, corrective action process, and verification processes.

Pictured on right is a new building at WCHS as a result of Project ADMIT (Advanced Development in Manufacturing & Integrated Technology). Through this initiative all four high schools in Wilkes County will have advanced learning environments. Work has been done at each high school by adding or improving classrooms, lab space, and purchasing new equipment. Project ADMIT focuses on preparing our future workforce in the areas of advanced engineering and computer technology.



STEM EDUCATION IS KEY TO MANUFACTURING INNOVATION



Wilkes County students in Advanced Manufacturing 1 courses competed in a Robotics Competition held at Wilkes Community College. Students had to build a search and rescue robot using the knowledge they learned in the areas of engineering design, electronics, mechatronics, and robotics.



Students in Mr. Wyatt's (WCHS) Masonry 1 course learn about the brick and mortar manufacturing process.

Investing in Our Future Workforce



Students enrolled in Advanced
Manufacturing II will assemble a
robot similar to the above using
their knowledge of engineering
design, electronics, robotics, etc.
that they learned in Advanced
Manufacturing I



Mr. Tolbert (WWHS) teaches students about electric vehicle technology.



Students in Mr. Nelson's (EWHS)
Computer Science course are working
in TouchDevelop learning about using
variables in a program.



Mr. Scism's (NWHS) Technology, Engineering & Design students recently constructed a bridge. Students will test their bridge to see who created the strongest design.



Mr. Tolbert 's (WWHS) Technology, Engineering & Design students created a rube goldberg machine.

STEM

Science, Technology, Engineering & Math

STEM is the driver of economic development, global competitiveness and innovation!



Mr. Roten's (WWHS) Core & Sustainable Construction students learn about basic safety, construction math, hand tools, power tools, and material handling. Pictured above are picnic tables built by his students.



Ms. Estes' (WCHS) Foods 2 students are learning the importance of being a safe food handler in the ServSafe unit. While studying pathogens students went on a search around the school to test for potential sources of contamination.



Students in Mr. Wilson's (NWHS)
Ag Mechanics course use math
skills and read engineering
blueprints to build roll over
protection for older tractors.
The University of Kentucky wrote
a grant and is using it to fund
the project. This year they are in
nine different states with one
agriculture program in each
state. We were chosen for North
Carolina.

· Clubs

Athletic Team

West Wilkes High School

Student Maximizing Academics, Relationships, and Time

0

Different Food

TECHNOLOGY INTEGRATION

Students in Mr. Hagaman's (WCHS) & Mrs. Woodie's (WWHS) Multimedia & Webpage Design classes learn advanced skills needed to use office application software as a business and personal tool. Topics include: Desktop Publishing, Graphic Image Design, Computer Animation, Virtual Reality, Multimedia Productions, and Webpage Design (HTML & CSS). Students are currently working with Graphic Design Principles & Typography

to create business Cards, flyers, advertisements, letterhead, newsletters and Infographics.



Infographic designed by students Megan & Charles R. in Mrs. Woodie's class.

Business card designed by student Zach S. in Mr. Hagaman's class.

MODERN CTE provides students with the technical, academic, and employability knowledge and skills they need to achieve their post secondary goals!

In Ms. Cooper's (EWHS) & Mrs. Splawn's (NWHS) Nursing Fundamentals course students learn the skills needed to care for residents. Students are required to complete a clinical internship in a long-term care facility. Upon successful completion of this course, students qualify to take the NC Nurse Aide I certification exam.

Prerequisites for this course include Health Science 1 and Health Science 2.



Ms. Cooper's students are studying disease and infection control. Here they are applying the skill of donning PPE (personal protective equipment).



Ms. Splawn's students are learning and practicing foot care.

Bright Outlook: Manufacturing & STEM Related Careers

Bright Outlook occupations are expected to grow rapidly in the next few years, have large numbers of openings, or are new and emerging occupations (more info @ www.onetonline.org)

Automotive Specialty Techs (\$39,000)

Automotive Engineers (\$84,000)

Biomedical Engineers (\$86,000)

Electrical Engineering Techs (\$61,000)

Fuel Cell Techs (\$61,000)

Manufacturing Engineers (\$96,000)

Mechatronics Engineers (\$96,000)

Nanotechology Eng. Techs (\$61,000)

Geographic Info. Sys. Techs (\$85,000)

Industrial Ecologists (\$67,000)

Quality Control Analysts (\$45,000)

Water Resource Specialists (\$120,000)

Welders, Cutters, Solderers & Brazers

(\$38,000)

Computer-Controlled Machine Tool Operators, Metal, Plastic (\$37,000)

Machinists (\$41,000)

Software Developers (\$98,000)

RoboticsTechnicians (\$53,000)

Millwrights (\$51,000)

Computer Support Spec. (\$49,000)

*each occupation is followed by median yearly salary

*for more information visit₉₁ www.onetonline.org



Have fun while learning!

The NCCET partners with Appalachian State University and North Carolina State University to offer several week-long summer camps with the goal of introducing STEM (Science, Technology, Engineering & Math) to students through hands-on activities and exploration.



NC STATE UNIVERSITY

"The engineering camp is great because they have fun ways to build things and discover how things work, while creating with all kinds of materials. I've always liked building things with Legos and working with robots. I often tear things apart and rebuild them to make them cooler!"

- Jacob A. Sierzenga6th GraderSnow Creek Elementary

About the NCCET:

The North Carolina Center for Engineering Technologies provides

facilities for applied research in engineering related fields and serves as a conduit to baccalaureate education delivered by the University of North Carolina system schools.

The primary schools involved in the center are Appalachian State University, Western Carolina University, North Carolina State University, University of North Carolina – Charlotte, Catawba Valley Community College, Caldwell County Community College and Technical Institute, and Western Piedmont Community College. The Center may collaborate with other schools in bringing the best programs to the region to meet training and employment needs.

Contact Us

Phone: (828) 328-6183 Web: nccet.appstate.edu



2018 INNOVATION CAMPS

1990 Main Ave. SE Hickory, NC 28602



2018 INNOVATION CAMPS

Design...
Build...
Create...

Innovate!

Summer learning opportunities in S.T.E.M. related disciplines for rising 3rd – 9th grade students.

(Formerly Future Engineer Camps)

Future Engineers Camps

Students imagine, collaborate, explore and create, all while learning STEM skills that will help them in school and life.

Rising 3rd - 5th Graders:

* June 18th - 22nd, 2018 (FE1)

-or-

* June 25th - 29th, 2018 (FE2)

Rising 6th - 8th Graders:

* July 9th - 13th, 2018 (MFE)



Robotics Camp

Student creativity and imagination is brought to life as they learn how to build and program a LEGO $_{\odot}$ EV3 robot by utilizing award-winning software.

^^^^^

Rising 6th - 8th Graders:

* July 16th – 20th, 2018



Builders Boot Camp

New in 2018 is our Builders
Boot Camp. This camp will teach rising
7th – 9th graders the "tricks of the trade"
in building and construction. Students
will work on individual and team
projects while learning about
appropriate tool usage and safety.

Rising 7th - 9th Graders:

* July 16th - 20th, 2018



Apply Today

If you are looking for a great way to engage your child in new and exciting experiences this summer then register for one of our **2018 Innovation Camps!**

LOCATION: All camps are held at the North Carolina Center for Engineering Technologies located at: 1990 Main Avenue S.E. Hickory, NC 28602

TIME: 8:30am – 3:00pm daily

COST: \$350 per student. The cost includes instruction, program materials, lunch, snacks and a tee shirt.

SCHOLARSHIPS: Due to the generous support of local corporations, a <u>limited</u> number of <u>partial</u> scholarships are available on a need basis.

APPLY: The application/selection process is competitive. Applications must be completed and submitted online, visit: **nccet.appstate.edu** (side menu – Future Engineer Camps Information)

DEADLINE: March 31, 2018

QUESTIONS:

Call: (828) 328-6183

Email: nccetcamp@appstate.edu

Web: nccet.appstate.edu



State of North Carolina

ROY COOPER

GOVERNOR

NORTH CAROLINA MANUFACTURING WEEK

2017

BY THE GOVERNOR OF THE STATE OF NORTH CAROLINA

A PROCLAMATION

WHEREAS, North Carolina is home to the largest manufacturing workforce in the Southeast and the 10th largest in the United States, employing more than 460,000 workers and representing 10.6 percent of the total workforce; and

WHEREAS, North Carolina's manufacturers are making significant contributions to our economy; manufacturing accounts for 20 percent of our state's gross state product – the fifth highest in the country; and

WHEREAS, we recognize the immense skills and training required to work in manufacturing today; the North Carolina Community College System offers more than 800 courses covering manufacturing skills in biotechnology, aviation and defense, pharmaceuticals, and other advanced manufacturing; and

WHEREAS, North Carolina's Community Colleges are partnering with local manufacturers to continuously develop and improve high-quality, customized training programs that draw on the latest technology and advances in manufacturing production, ensuring North Carolina's manufacturing workers stay a step ahead of the cutting edge; and

WHEREAS, manufacturing is a major driver of exports for North Carolina; in 2016, North Carolina manufacturers exported \$28.25 billion in manufactured goods – mainly chemicals, computer and electronic products, and machinery; and

WHEREAS, during North Carolina Manufacturing Week, we acknowledge and celebrate the contributions of manufacturers in our state, as well as our manufacturing-sector research initiatives and workforce development programs;

NOW, THEREFORE, I, ROY COOPER, Governor of the State of North Carolina, do hereby proclaim October 1 – 7, 2017, as "**NORTH CAROLINA MANUFACTURING WEEK**" in North Carolina, and commend its observance to all citizens.



Roy Cooper/ Governor

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Great Seal of the State of North Carolina at the Capitol in Raleigh this twenty-fifth day of September in the year of our Lord two thousand and seventeen and of the Independence of the United States of America the two hundred and forty-first.



Manufacturing Day by the Numbers

What Is Manufacturing Day? Started in 2012, Manufacturing Day is an annual celebration of modern

manufacturing. Manufacturers invite students, educators, businesspeople, media, and politicians to their facilities in a collective effort to educate visitors about manufacturing careers and improve public perceptions of manufacturing.



2012

This year's Manufacturing Day is October 6, 2017.

Event Growth Since 2012, the official number of MFG DAY events has grown over 1,000%.

2,807 2,599 1,647 834 240

2013

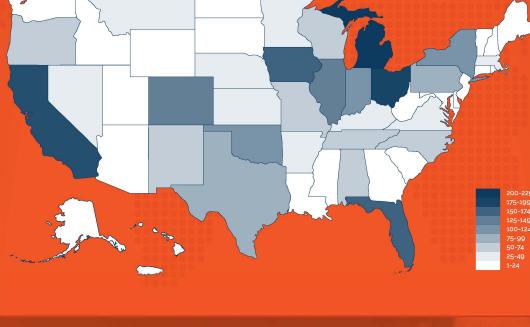
MFG DAY State-by-State

2014

2015

2016

Participation in 2016 Manufacturers in all 50 United States and Puerto Rico have consistently participated in MFG DAY.



147 local and state lawmakers, repeated this proclamation in 2016.

Government Recognition In 2014, President Obama recognized Manufacturing Day with a proclamation declaring October 2, 2014 National Manufacturing Day. The President, along with





More convinced that manufacturing provides careers that are interesting and rewarding

and rewarding

attending an event

More motivated to pursue careers in manufacturing 71% More likely to tell friends, family, parents or colleagues about manufacturing after

Why We MFG DAY Manufacturing Day is all about celebrating manufacturing. By providing an opportunity to focus collective attention on manufacturing, MFG DAY aims to:

Change public perceptions of manufacturing

Empower manufacturers

Introduce people to manufacturing careers

Draw attention to the roles manufacturers

play in their communities

Infographic © 2017 Manufacturing Day

<u>Underscore</u> the economic and social significance of manufacturing

Visit us online:

www.mfgday.com



95



2018 Career Pathways Week

Career Pathways Week is January 22 - 26, 2018. Throughout the week, Career Pathway Facilitators will host workshops across North Carolina in each of the eight prosperity zones. Just pick a session from the list below and we will see you there! Online registration is required.

Workshops are tailored for frontline staff who serve career seekers, dislocated workers, high schools and community colleges. If you and your staff are involved in serving job seekers and students, there is a Career Pathways workshop near you.

Registration is free and now open at www.ncworkforcetraining.com. Register as soon as possible. Workshops will fill up fast and there is limited seating available.

PROSPERITY ZONE:	DATE/LOCATION	DATE/LOCATION	DATE/LOCATION
Northeast	January 23: 3:00-4:00pm College of the Albemarle Elizabeth City	January 24: 10:00-11:00am Pitt Community College Greenville	N/A
Southeast	January 24: 9:00-11:00am Lenoir Community College Kinston	January 25: 9:00-11:00am Brunswick Community College Leland	N/A
North Central	January 22: 10:00am-12:00pm NCWorks Training Center Raleigh	January 22: 1:00-3:00pm NCWorks Training Center Raleigh	N/A
Sandhills-South Central	January 23: 9:00-11:00am Bladen Community College Dublin	January 23: 1:30-3:30pm Sandhills Community College Pinehurst	N/A
Piedmont Triad	January 23: 9:30-11:30am NCWorks Career Center Greensboro	January 25: 1:30-3:30pm Piedmont Triad Regional Council Kernersville	N/A
Northwest	January 24: 2:00-3:30pm Blue Ridge Electric Membership Corp. Boone	January 25: 2:00-3:30pm Catawba County NCWorks Career Ctr. Conover	N/A
Southwest	January 23: 9:00-11:00am NCWorks Career Center—Executive Center Drive Charlotte	January 24: 9:00-11:00am Cleveland Community College Shelby	January 25: 9:00-11:00am Centralina Workforce Development Board Charlotte
Western	January 23: 10:00-11:30am Southwestern Commission, Council of Governments; Sylva	January 25: 10:00-11:30am Land of Sky Regional Council Asheville	N/A

Jan. 26, 2018 2:00 pm – 3:30 pm Wilkes NCWorks Career Center

Welcome & Introductions

Video Presentation:

SUCCESS IN THE NEW ECONOMY - https://vimeo.com/67277269

North Carolina's Certified Career Pathways

- Brief review of Career Pathways (CP)
- Overview of North Carolina's Certified CP (CCP)
- Status of CCP's across the State & Regionally
- High Country's Certified Career Pathways
 - o Provide an overview of the Career Pathways and the careers included in them
 - Healthcare
 - Manufacturing
- a Certified Career Pathway Tool Kit
 - Engage audience Career Ladder Exercise
- You Play a Role in Implementation
 - > Engage audience
 - Engage audience Group Brainstorming Sessions where you will

Closure

- Questions / Answers

MEETING SIGN-IN SHEET:

Project: Career Pathways Meeting Date: 1/26/18

Facilitator: Pathy Thompson Place/Room: Wilker Center

Print Name	
	Signature
Misty Bishop-Price	Mots Bishop-Price
Dawn Boyer	Dawn Broyer
PHIL Pope	
Dara Davenport	Dava Davingort
Nancy Broman	Marcy Broman
Kathleen Joagand	of way
Mary Jolly	Mary Solly
Suzie Andrew	Suzii Quarew
CHARLIE ANDERSON	C32
Alben Osbar	All Ohe
Jina Pot might	Ernestine (Tina) Mc Knight
O TO COWE	Anita Lowe
Xthelp	Joan C. Fuxs
CHRIS ECKARD	CHECKARD
ANDREW HOLLAND	Windre Helland
GREG ONDE	I reg Jale
Ashley Dan3	asly P. Dayis
AngelaBrown	angele 2 Brown

Exhibit 4G

AEV HIRING EVENT



AEV is the largest ambulance manufacturer in the U.S. and has been producing vehicles in Ashe County since the 1980's.

For more information call

Next Level Business 336-982-4053





NCWorks Connecting Talent to Jobs

336.982.5627

NCWorks Career Center I Equal Oppostunity Employer/Program I Dial 711 for Relay NC

LOOKING FOR WORK?

Hiring Event for Jeld-Wen

When: April 11th 9am-12 noon

Location:

Jeld-Wen
205 Lanes Drive
North Wilkesboro

Positions (full-time, benefit eligible) include press operators, assembly associates, and utility workers

Dress appropriately, bring your resume, and be prepared to interview on-site.

For more information call

Wilkes NCWorks Career Center 336.838.5164



NCWorks
Connecting Talent to Jobs





APRIL 4, 2017

11AM - 1PM



Attention Candidates!

Randstad is currently seeking dedicated individuals who are looking to make their mark in the Manufacturing and Logistics industry. We are currently hiring for a large manufacturing plant in North Wilkesboro. If you have manufacturing experience, excellent work ethic, and are ready to further your career, we have a position for you!



LOOKING FOR
SKILLED
MANUFACTURING
AND LOGISTICS
PERSONNEL!!

good to know

vou



"Choose a job you love, and you will never have to work a day in your life." -Confucius

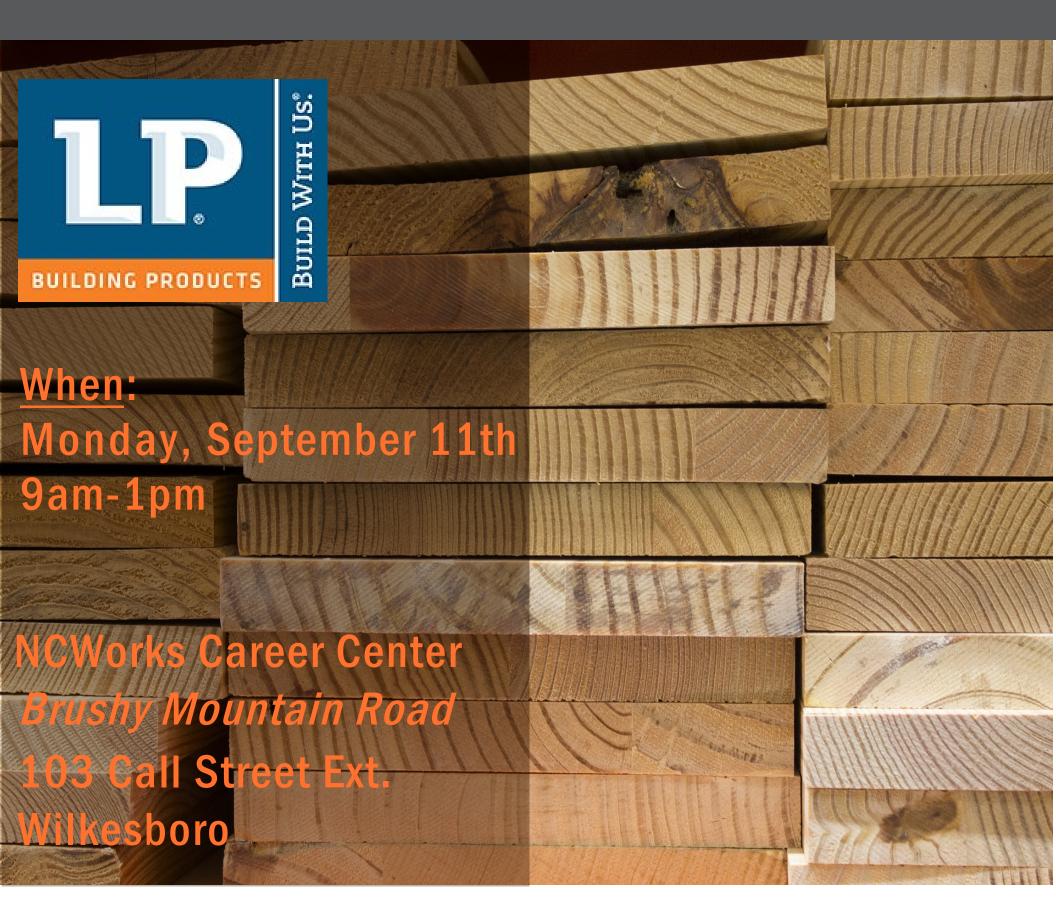
Please have a resume to present when you come.

See you soon!!

RANDSTAD

103 Call Street Ext.
Wilkesboro, NC

HIRING EVENT



Utility Temporary Worker \$14.95/hour

Manufacturing experience preferred

Must pass background check and drug screening

LP offers competitive salaries and comprehensive benefits and programs including health and welfare benefits, 401(k), career mobility, tuition reimbursement, volunteer opportunities, profit sharing, and more.

For more information call

Wilkes NCWorks Career Center

336.838.5164

www.ncworks.gov

NCWorks Connecting Talent to Jobs

> NCWorks Career Center I Equal Opportunity Employer/Program I Dial 711 for Relay NC

JOB FAIR



When:

Tues. May 16, 2017

2:00 pm - 4:00 pm

Location:

John A. Walker Center
Wilkes Community College
1328 South Collegiate Drive
Wilkesboro

Dress appropriately and bring your resume!



Veterans are encouraged to attend

Administrative, General Labor, and Manufacturing positions available at more than 20 employers!

For more information call

Wilkes NCWorks Career Center 336.838.5164

Wilkes Community College 336.838.6545

Goodwill Career Connections 336.667.0889

NCWorks
Connecting Talent to Jobs













General Labor starting at \$11/hour *

Maintenance starting at \$15.96-\$22.66/hour *

Nurses starting at \$34/hour Shift differential for 2nd & 3rd shift \$3/hour more



*Some positions will qualify for pay incentive from \$2 - \$4/hour.

Apply online at tysonfoodscareers.com or in person

Saturday, May 6th 9:00 am - 12:00 noon Lowe's Hall-WCC campus Wilkesboro Competitive wages, paid vacations & holidays, company matching 401(k), and stock purchase plans.

Tyson is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, national origin, color, religion, age, genetics, sex, sexual orientation, gender identity, disability or veteran status.



5. Articulation & Coordination

The High Country LEA's are supported by articulation agreements between the local schools and the community college system. This permits high school students to begin taking a variety of manufacturing classes and have their course work transfer seamlessly to local community colleges. The standard statewide agreement between North Carolina's high schools and community colleges has recently been revised.

Examples of Manufacturing and Welding program of studies as well as related courses by the seven LEAs in the High Country are found in Exhibit 5A. Despite the vast distances between the seven counties in the High Country, high school students have options of courses they can take either at their high school or with the nearby partnering community college. Not only are industry credentials earned in some cases, course work is articulated with local community colleges once they earn their high school degree.

The three High Country community colleges offer degree as well as non-degree course options. A complete list of 'for credit', continuing education programs as well as credential classes for all three colleges is in Exhibit 5B. Some of the non-degree classes lead to diplomas, certificates and/or valuable credentials. Incumbent workers, unemployed adults, and the dislocated, in addition to youth populations, have the opportunity to enroll and complete credit or non-credit courses. A list of courses that lead to skilled proficiency and to industry recognized credentials are provided. (Exhibit 5C).

Bryan Peterson, Human Resource manager of Altec industries, discussed with the group at our February 21st meeting about a new training facility in Yancey County. The Yancey County based Anspach Advanced Manufacturing School, (Exhibit 5D) is a 13,000 square-foot addition at Mayland Community College, consisting of classrooms and offices where students are offered a degree program in Applied Engineering with skill tracks in CNC programming, machining, robotics, mechatronics, and design. The facility also houses Direct Metal Laser Sintering (DMLS) technology, allowing students, industries, and entrepreneurs to create metal 3D prototypes of their designs. The addition of the Anspach Advanced Manufacturing School has been a tremendous help to local manufacturers as not only a way to train students, but also for its customized training for incumbent workers.

Finally, the option for a person, whether high school age or older, to combine their training experience for college credit and continue on for a bachelor's is very possible due to a new program coming on board in the Fall 2018 at Appalachian State University. ASU will begin offering an online undergraduate degree completion program next fall that targets working adults in business and manufacturing. It's called Workforce Development, and its purpose is to provide access to a bachelor's degree in leadership/management. ASU's current expectation is that the ideal non-traditional adult candidate for this program will have some community college credentials in addition to many years of experience when they enter the program.

An "At a Glance" list of undergraduate and graduate program offerings for High Country and Distance Education Universities is provided. This would include Appalachian State University as well as the distance education programs offered by Western Carolina University and North Carolina State University. Western Carolina has a distance education program option where a student could complete their Bachelors of Science in Engineering Technology / Technical Operations within five semesters. The closest distance education campus is located in nearby Hickory. North Carolina offers a series of manufacturing programs online for the convenience of those that wish to further their education up to the graduate level (Exhibit 5E).

Alleghany LEA



Career & College Promise Pathway WELDING TECHNOLOGY



	HIGH SCHOOL PLAN					
Grade	English	Math	Science	Social Studies	*Required Courses or Recommended CTE Electives	Career and Technical Courses
9 th Fresh.	English I	Math I	Earth Science	World History	*Health/PE *Career Mgmt.	AS31 Agriculture Mechanics I AS 32 Agriculture Mechanics II (recommended high school CTE classes)
10 th Soph.	English II	Math II	Biology	Civies & Economics		
11 th Junior	English III	Math III	Physical Science	American History I	BPR 111 – Print Reading (Career & College Promise class)	WLD 115 – SMAW (Stick) Plate (Career & College Promise class)
12 th Senior	English IV	4 th Math Course		American History II	WLD 141 - Symbols & Specs (Career & College Promise class)	WLD 121 – GMAW (MIG) FCAW/Plate (Career & College Promise class) WLD 131 – GTAW (TIG) Plate (Career & College Promise class)

High School students who envoll and complete this pathway will receive a high school diploma and 20 semester hours of credit toward the Welding Technology Diploma to be completed at Wilkes Community College. A fee of \$20 per course is charged to each high school student who envolls in a Career and College Promise Pathway. By completing the 20 semester hours of credit through the Career and College Promise Pathway, the student will save approximately \$1,440.00 in tuition fees and an additional savings for costs of textbooks. All college courses in this pathway transfer directly into Wilkes Community College at no charge.

	WILKES COMMUNITY COLLEGE PLAN							
First Year Fall Semester	ACA 115 Success/Study Skills	*BPR 111 Print Reading	DFT 119 Basic CAD	MEC 111 Machine Processes I	*WLD 110 Cutting Processes	*WLD 121 GMAW MIG	*WLD 141 Symbols/Specs	
First Year Spring Semester	ENG 110 Freshman Composition or ENG 111 Writing & Inquiry	*WLD 115 SMAW Plate (Stick)	*WLD 131 GTAW Plate (TIG)	MAC 121 Intro to CNC	MAT 110 or MAT 115 or MAT 120 or MAT 121 or MAT 143		-	
First Year Summer Semester	WLD 151 Fabrication I	WLD 261 Certification Practices						

The courses marked with an * and highlighted in green represent college credits from Career and College Promise or high school CTE courses that articulate to college credit. Students in the Welding Technology pathway would only need to complete 20 hours to fulfill the requirements to complete the Welding Technology Diploma at Wilkes Community College.

For specific details or additional information, contact your local school district Career & College Promise representative listed below:

Alleghany County Schools

Elizabeth Coleman (336) 903-3144 or Joallen Lowder (336) 246-7155 or Becky Kennedy (336) 838-6484 or elizabeth.coleman@wilkescc.edu

joallen.lowder@ashe.k12.nc.us

becky.kennedy@wilkescc.edu

Ashe LEA Manufacturing & Welding

Pathways	Manufac	Cluster Enhancement Courses		
Production	IM21 Cabinetmaking I	(1 credit) ME11 Entreprener		CC45 Career Management
	IM61 Welding Technology I	IM62 Welding Technology II ° (1 credit)	CS95 CTE Advanced Studies WLD121 GMAW (MIG) FCAW/Plate WLD131 GTAW (TIG) Plate CCP	BD10 Multimedia and Webpage Design BM10 Microsoft Word and PowerPoint ^ IC81 Drafting I BF05 Personal Finance (BFIT, FACS, & MEE) CS96 CTE Apprenticeship CS97 CTE Internship
Career & College Promise	MAC 121 Intro	to CNC ISC	112 Industrial Safety	
Applied Engineering Certification	ATR 112 Intro to Automation DFT 119 Basic CAD * EGR III Engineering Comp & Careers ISC 112 Industrial Safety BPR 111 Print Reading MAC 121 Intro to CNC MEC 111 Machine Processes I			
Additional Pathways	Health, Safety & Environmental Assurance Quality Assurance			
Middle School Courses	CC58 Exploring Career Decisions			

Manufacturing /Engineering

Pathways	Science, Technology, Engineering & Mathematics Cluster Foundation Courses				Cluster Enhancement Courses	
TP11 PLTW introduction to Engineering & Technology Engineering & Technology TP12 PLTW Principles of Engineering ! ^		IC61 Drafting I IV22 Drafting II - Engineering*		N23 Drafting III - Engineering		
		TP25 PLTW Aerospace Engineering * ^	TP22 PLTW Computer Integrated Manufacturing * * * Beginning Fall 2017-18	CSS CTE Advanced Studies	CC45 Career Management BD10 Multimedia and Webpage Design BM10 Microsch Word and PowerPoint ^ AP41 Horticulture 1 ME11 Entrepreneurship 1 ^ BP45 Personal Finance (BF11, FACS, & MEE)	
Career & College Promise		EGR 120 Engineeri MEC 110 Int MEC 111 Mac DFT 119	ring Comp & Careers ing & Design Graphics to to CAD/CAM hithle Processes I Basic CAD * tro to GDardT *		CS96 CTE Apprenticeship CS97 CTE Internship	
Additional Pathways	No.	ne		5.1		
	CC58 Exploring Career Decisions					
Middle School Courses	TP01 PLTW Gateway to Technology					

Ashe LEA

Welding

	4		nuf	acturin	g	Prod	ductio	n Path	way	Welding
Education Level	Grade	English	Math	Social Studies	Science	Health/PE and Other Electives	Elective	Elective	Elective	CTE Completer To be a CTE completer, students must take three Foundational Courses, with one course at a second level, indicated by an *. The fourth course can come from the
	9	Courses listed in English I	BOLD print are r Math I or Math II	equired for grad World History	uation. Italicizea Earth & Environmental Science Or AP Environmental	d courses are reco	mmended, but i Welding I	not required for	graduation.	Enhancement course lists. All CCP courses can count as second level* completer courses.
Secondary	10	English II	Math II or Math III	Civics & Economics	Physical Science	Elective	Welding II*			
Seco	11	English III Or AP English	Math III or Advenced Math	American History I & American History II	Biology	World Language for Other Elective	WLD 121 BB* GMAW (MIG)			Enhancement Courses Career Management Microsoft Word & <u>Rowerpoint</u> Microsoft Excel & Access Multimedia & Webpage Design
	12	English IV Or AP English	Advanced Math/Math Based on Career Plans	Chosen Elective (if wanted)		World Language II or Other Elective	WLC 131* GTAW (TIG) Plate			Orafting I Personal Finance CTE Internship
Post- Secondary	Program Leading to a Diptoma in Welding Fall Semester MAT 110 Math Measurement BPR 111 Print Reading WLD 110 Cutting Processes WLD 113 SMAW (Stick) Plate WLD 141 Symbols & Specifications						Spring S 01 App Comm I or MEC 110 Introdu MEC 111 Mac	emester	Career & College Promise (CCP) Technical Courses BPR 111- Print Reading	
	Summer	WLD 261 Cert	ification Practices	ing Metallurgy or WBL 111 Work-t Welding/Cutting	based Learning					Occupations: Entry Level technicians for welding or metal working industries. Average Salary: \$36,720
Requi	ed C	redit Hours	for Diploma	39			American	Welding Soc	iety (AWS) (Certifications available

Career and College Promise Course Information

Career and College Promise (CCP) Courses allow high school students to earn high school and college credit at the same time. To be eligible to take these courses, students must:

- Be high school juniors or seniors;
- Have a weighted grade point average of 3.0 or higher or have the recommendation of their high school principal;
- Meet the prerequisites for the Career Technical Pathway (as defined WCC and the Career & College Promise Operating Procedures)

Eligibility Maintenance requires continued progression toward high school graduation and minimum of 2.0 grade point average in college coursework after completing two courses.

Avery County LEA

Welding



Mayland Community College Career and College Promise High School Pathway 2016-2017





Program of Stud	ty: Basic Welding	(C50420B)							Certificate	
					High School Pla	n .				
	Grade	English Required Courses	Math Required Courses	Science Required Courses	Social Studies Required Courses		Required and/or Re	commended Courses		
6	9	English I	Math I	Earth/Environmental Science	World History	Health and PE	Principles of Business and Finance BF10	Into to Trade and Industry IU10	MS IT Academy: Word and PowerPoint BM10	
Avery High School	10	English II	Math II	Biology	American History I	Elective	Elective	Elective	Drafting I IC61	
wery H		English III Math III				WLD 110 (2 Cutting Proce	sses	WLD 121 (4) GMAW (MIG) Plate		
4	11		Physical Science or Chemistry	American History II	WLD 141 (3 Symbols & Sp	ecs	WLD 1			
						WLD 115 (SMAW (Stick)	,	GTAW (TIG) Plate		
	12	English IV	One Additional Math	Elective	Civics and Economics	Elective	Elective	Elective	Elective	
					Community College	e Plan				
	Year 13						Int	ermediate Welding (C5042	01) or Diploma (D50420)	
	Fall	WLD 116 (4)	WLD 122 (3)	WLD 143 (2)	ACA 115 (1)	ENG 101 (3) or ENG 111 (3)				
	Spring	WLD 132 (3)	WLD 151 (4)	WLD 261 (2)	MAT 110 (3)					
MCC	Summer	PSY 150 (3)								
2	Year 14						1	Assoc	iate Degree (A55280W)	
	Fall	ISC 112 (2)	MEC 111 (3)	MAC 121 (2)	COM 231 (3)	HUM 110 (3)				
	Spring	MEC 110 (2)	MEC 112 (3)	MAC 122 (2)	MAC 124 (2)	SOC 210 (3)				

Required Credits for the Certificate: 18 Hours Remaining for the Inter. Certificate: 18 Hours Remaining for the Diploma: 50 Hours Remaining for the Degree:

College Contact; Brenda McFee

Dean, Business, Engineering, and Technical Studies (828) 766-1330

High School Contact; Frank O'Hagan

CCP Coordinator - Yancey County

fohagan@mayland.edu (828) 766-1304

Occupation(s): Welders, Cutters, and Welder Fitters O*Net Code: 51-4121.06 Solderers and Brazers O*Net Code: 51-4121.07 Welding, Soldering, and

Brazing Machine Setters, Operators O*Net Code: 51-4122.00

and Tenders

Salary: \$12.50 - \$25.88 Hourly: Average Hourly (2014 Median): \$17.90

\$26,000 - \$53,000 \$37,230 Yearly: Average Yearly (2014 Median):

Demand: Much faster the average (2012-2022)





Mitchell County LEA

Mechanical Design



Mayland Community College Career and College Promise High School Pathway 2016-2017





Program of Stud	ly: Mechanical De	sign (C40130D)								Certificate
					High School Plan					
	Grade	English Required Courses	Math Required Courses	Science Required Courses	Social Studies Required Courses		Required and/or Recommended Courses			
hool	9	English I	Math I	Elective	World History	Health and PE MS IT Academy: Word and PowerPoint BM10		Into to Trade and Industry IU10	Drafti IC6	
Mitchell High School	10	English II	Math II	Biology	Civics and Economics	Elective	Principles of Business and Finance BF10	Drafting II – Architectural IC62	Drafting II – 6 IV2	
Mits	11	English III	Math III	Physical Science or Chemistry	American History I or HIS 131	American History II or HIS 132	Drafting III – E IV23		BPR 111 (2) Print Reading	TDP 110 (3) Intro to 3D Printing
	12	English IV	One Additional Math	Earth/Environmenta Science	Personal Finance BF05	Internship CS97	Electi	ve	Elective	TDP 140 (3) Precision 3D Printing
					Community College Plan					
	Year 13								Diplo	oma (D40130D)
	Fall	ISC 112 (2)	MAT 121 (3)	ELC 131 (4)	CIS 110 (3)	ACA 115 (1)		Note: ACA 11	L5 is only required f	or the degree
ų	Spring	MEC 110 (2)	ENG 111 (3)	ELC 117 (4)	HYD 110 (3)	MEC 161 (3)	DFT 121 (2)	note: Albita	o is only required	
MCC	Year 14								Associate Deg	ree (A40130D)
	Fall	DDF 211 (4)	ISC 212 (2)	HUM 110 (3)	MEC 180 (3)					
	Spring	DDF 212 (4)	DFT 211 (2)	EGR 285 (2)	PSY 150 (3)	ENG 114 (3)				
Hours Remainin	dits: ts for the Certifica ng for the Diplom ng for the Degree	a:	16 27 54	Ele Civ	chanical Drafters ctronic Drafter I Drafter urly:	O*Net Cod	e: 17-3013.00 e: 17-3012.01 e: 17-3011.02	Cost: Certificate: Free tuition	& fees for CCP Stud	lents
College Contact Brenda McFee Dean, Career ar (828) 766-1330	nd Technical Educ	ation bmcfee@mayland	l.edu	Yes Ave	rage Hourly (2014 Median): rly: rrage Yearly (2014 Median): dining (2012-2022)			Diploma:		
High School Cor Maria Grindstaf CCP Coordinato (828) 766-1283	ff or – Mitchell Cour	nty mgrindstaff@may		Drafting II – Engineering (ting II – Architectural (IC62): IV22) = DFT 154 (3) (IV23) = DFT 121 (2) and DFT					

Mitchell County LEA

Welding Technology



Mayland Community College Career and College Promise High School Pathway 2016-2017





Program of Stu	ıdy: Welding Te	chnology – Basic	(C50420C1)						Certificate		
				Hig	h School Plan						
	Grade	English Required Courses	Math Required Courses	Science Required Courses		Required and/or Recommended Courses					
Mitchell High School	9	English I	Math I	Elective	World History	Health and PE	Principles of Business and Finance BF10	Into to Trade and Industry IU10	MS IT Academy: Word and PowerPoint BM10		
ell High	10	English II	Math II	Biology	Civics and Economics	Elective	Elective	Elective	Drafting I IC61		
Mitch	11	English III	Math III	Physical Science or Chemistry	American History I	American History II	Personal Finance	WLD 121 (4) GMAW	WLD 110 (2) Cutting Processes		
				Circuistry	or HIS 131	or HIS 132	BF05	(MIG) Plate	WLD 141 (3) Symbols & Specs		
	12	English IV	One Additional Math	Earth/Environmental Science	Elective	Internship CS97	WLD 1 SMAW (St	• •	WLD 131 (4) GTAW (TIG) Plate		
				Commu	nity College Plan						
	Year 13						Intermed	liate Certificate	(C50420C2) or Diploma (D50420)		
MCC	Fall	WLD 116 (4)	WLD 122 (3)	WLD 143 (2)	ENG 101 (3)						
Σ	Spring	WLD 132 (3)	WLD 151 (4)	WLD 261 (2)	MAT 110 (3)						

Articulated Credits:	0
Required Credits for the Certificate:	18
Hours Remaining for the Inter. Certificate:	18
Hours Remaining for the Diploma:	24
nours Remaining for the Diploma.	24

College Contact: Brenda McFee

Dean, Career and Technical Education

bmcfee@mayland.edu (828) 766-1330

High School Contact:

CCP Coordinator – Mitchell County

(828) 766-1283 mgridstaff@mayland.edu Occupation(s): Welders, Cutters, and Welder Fitters O*Net Code: 51-4121.06 Solderers and Brazers O*Net Code: 51-4121.07 Welding, Soldering, and

Brazing Machine Setters, Operators O*Net Code: 51-4122.00

and Tenders

Salary:

Demand:

\$12.50 - \$25.88

Average Hourly (2014 Median): \$17.90 \$26,000 - \$53,000

Average Yearly (2014 Median): \$37,200

Much faster the average (2012-2022)

Basic Certificate:

Free tuition & fees for CCP Students

Intermediate Certificate:

Diploma:

Mitchell County LEA

Machining Processes



Mayland Community College Career and College Promise High School Pathway 2016-2017





Program of Stu	dy: Machining Pro	cesses (C40130M)								Certificate	
					High School Plan						
	Grade	English Required Courses	Math Required Courses	Science Required Courses	Social Studies Required Courses		Required and	or Recommend	or Recommended Courses		
lood	9	English I	Math I	Elective	World History	Health and PE	MS IT Academy: Word and PowerPoint BM10		Draftin IC61	g I	
Mitchell High School	10	English II	Math II	Biology	Civics and Economics	Elective	Principles of Business and Finance BF10	Drafting II – Architectural IC62	Drafting II – En		
Mite	11	English III	Math III	Physical Science or Chemistry	American History I or HIS 131	American History II or HIS 132	Elective	Drafting III – Engineering IV23	BPR 111 (2) Print Reading ISC 112 (2) Industrial Safety	MEC 111 (3) Machining Processes I	
	12	English IV	One Additional Math	Earth/Environment	Personal Finance BF05	Internship CS97	MEC 1 Machining F		MAC 121 (2) Intro to CNC MEC 110 (2) Intro to CAD/CAM	MAC 122 (2) CNC Turning MAC 124 (2) CNC Milling	
					Community College Plan						
	Year 13						1		Diplo	ma (D40130M)	
	Fall Spring	DFT 119 (2) ELC 117 (4)	MAT 121 (3) ENG 111 (3)	ELC 131 (4) ELC 117 (4)	CIS 110 (3) HYD 110 (3)	ACA 115 (1) DFT 121 (2)	Note	e: ACA 115 is onl	y required for the deg	ree	
J W	Year 14	ELC 117 (4)	ENG III (5)	ELC 117 (4)	110 110 (5)	DF1 121 (2)			Associate Dec	ree (A40130M)	
2	Fall	DFT 154 (3)	ISC 212 (2)	HUM 110 (3)	MEC 231 (3)	MEC 180 (3)			ASSOCIATE DEB	ec procesony	
	Spring	PSY 150 (3)	MAC 228 (3)	EGR 285 (2)	MEC 232 (3)	ENG 114 (3)	1				
	edits: its for the Certifica ng for the Diplom		0 18 26	M	IC Machine Tool Programme etal & Plastic achinist		O*Net Code: 51-4012.00 O*Net Code: 51-4041.00		Cost:		
	ng for the Degree		55	Salary: Ho	ourly: erage Hourly (2014 Median).	\$14.55 - \$2			Free tuition & fees for CCP Students		
College Contac Brenda McFee Dean, Career a		ation		Ye	arly: erage Yearly (2014 Median):	\$30,300 - \$	\$60,800	Diploma:			
(828) 766-1330		bmcfee@mayland	l.edu	Demand: M	uch faster than average (201	2-2022)		Degree:	Degree:		
High School Co Maria Grindsta CCP Coordinate (828) 766-1283	iff or – Mitchell Cour	nty mgrindstaff@may	fand.edu	Articulated Credits; Drafting I (ICS1) and Drafting II – Architectural (ICS2) = DFT 119 (2) Drafting III – Engineering (IV22) – DFT 154 (3) Drafting IIII – Engineering – DFT 121 (2) and DFT 254 (3)							

Watauga LEA





Mechanical Engineering Technology 6 Year Plan

		Seconda	Post Secon	dary Level		
	High School D	iploma. MET - V	Velding & Drafti	ng Certificates	Associate De	gree Program
	9th Grade	10th Grade	11th Grade	12th Grade	13th Grade	14th Grade
ENGLISH	English I	English II	English III	English IV	ENG 111	ENG 114
MATH	NC Math I	NC Math II	NC Math III	4th Math	MAT 121/171	EGR 250
SCIENCE	Earth	Blology	Chemistry, Physics or Physical Science	Elective or Language	EGR 250 or PHY 131/151	ELC 112 or 131
HISTORY	World	Civics/Econ	American I	Elective or Language	HYD 110	ATR 282
PE	Health	PE	American II	Elective	MEC 231	DFT 154
ELECTIVE	Drafting I (CCP/WIA DFT 111/A)	Welding I (CCP/WIA WLD 110/141)	Welding II (CCP/WIA WLD 115)	Welding III (CCP/WIA WLD 121/131)	CIS 110	ELC 131A
ELECTIVE	Drafting II - A (CCP/WIA DFT 112/A)	CCP or WIA DFT 151	CCP or WIA MEC 111	CCP or WIA MEC 145	COM 120	PHY 131
ELECTIVE	Elective	Elective	CCP or WIA DFT 152	CCP or WIA DFT 153	Social Science	Humanities
Suggestions:		te an Industry Rei P to complete Col		h & Math		
Job Outlook:	equipme Total Av NC Entr Architectural Dra Use soft detailed building Total Av	Join metal parts u ent. Fill holes, Inde erage Annual Op y Wage: \$26,640 afters – Design/Pr tware to convert a drawings/maps o materials, engine erage Annual Op y Annual Wage: \$	entations, or sean enings: 246 Gi NC e-Construction rchitects' designs f structures like b ering practices, a enings: 48 NO 35,490 N	ns of fabricated m rowth Rate: 0.7% C Median Annual V Into technical dra ulidings, highways nd mathematics to C Growth Rate: 0. C Median Annual	Wage: \$35,620 wings and plans. s, and bridges.Use o complete drawin 7%	Prepare e knowledge of gs.
Tuition:	Total tuition save	ed through the WI	A/CCP: \$2,844			
Credentials:	SMAW, GMAW,	FCAW, GTAW				

WATAUGA HIGH SCHOOL AND INNOVATION ACADEMY

MANUFACTURING & WELDING PATHWAYS

Watauga County Schools is home to two high schools that are housed within the same building. Watauga High School is a standard operating comprehensive high school that provides students with many career pathways including a Manufacturing & Welding Pathway. The Watauga Innovation Academy is a Cooperative and Innovative High School with five career pathways that is currently producing ASW certified instructors with a Caldwell Community College & Technical Institute certificate.

Courses offered at Watauga High School & Innovation Academy:

- Welding Technology I
- Welding Technology II
- Welding Technology III
- WLD 110
- WLD 141
- WLD 115
- WLD 121
- WLD 131
- MEC 111
- MEC 145

Wilkes LEA

Welding Technology

		T	Career Cluster	cturing		W	Pati elding T	echnol	Many welders are certified in one or more welding techniques such as stick welding, MIG welding and TIG welding. Welders are frequently employed in the shipbuilding, automobile, and aerospace industries. Welders also join beams and girders and the like in commercial and residential construction. They may lay pipelines and work to build and maintain power plants and refineries	
Education Level	Grade	English	Math	Social Studies	Science	Health/PE and Other Electives	Elective	Elective	Elective	CTE Completer To be a "completer", students must earn at least three credits from the Foundational Course list (with one credit being from a second level course - indicated by a * below). The fourth credit can come from either the Foundational or Enhancement course lists. All CCP
	9	Courses listed in I	Foundations of Math 1, Math 1, or Math 2	equired for gra World History	Earth & Environmental Science	courses are rec	CTE Course (Recommend MS Word, PPT & Publisher) CTE Course (Recommend Introduction to Trade & Industry) CTE Course (Recommend "other" elective of Math 1 (if also taking Found. of Math 1)		Recommend "other" elective or Math 1 (if also taking Found.	courses count as completer courses – if aligned with the career cluster. Foundational Courses Introduction to Trade and Industry Welding 1, 2*, 3
rades 9-12)	10	English 10	Foundations of Math 2, Math 2, or Math 3	American History 1	Physical Science	Elective	CTE Course (Recommend Agriculture Mechanics 1)	CTE Course (Recommend Agriculture Mechanics 2)	Recommend "other" elective or Math 2 (if also taking Found. of Math 2)	Project Management 1 & 2 Principles of Business & Finance CTE Advanced Studies Apparel 1 & 2* Entrepreneurship 1
Secondary (Grades 9-12)	11 English 11 Math 3 or American Biolo Other Math History 2 Biolo					World Language 1 or Other Elective	CTE Course (Recommend Personal Finance)	CCP	ССР	Enhancement Courses Agricultural Mechanics 1&2* Microsoft Word, PPT & Publisher Microsoft Excel & Access Personal Finance
	12 English 12 Other Math Civics & Chemistry				Chemistry	World Language 2 or Other Elective	CTE Course (Recommend CTE Internship or Apprenticeship)	ССР	ССР	Career Management CTE Internship CTE Apprenticeship
	MEC 1 WLD	n Coreer & College tal Courses offered 111 – Blueprint Re: DFT 119 – Basic CAI 111 – Machine Proc 110 – Cutting Proc I/LD 121 – GMAW N D 141 – Symbols / S	in WCS: ading D esses 1 esses	allow high sch these courses, - Be a hi - Have a recom -Be mai	lege Promise (CCP) Cool students to earn he students must: gh school junior or se weighted grade poin mendation of their hiting progress toward in a minimum 2.0 gg; f.	nigh school and co nior; t average of 3.0 c gh school princip graduation;	ollege credit at the or higher <u>or</u> have the	same time. To be		NOTE: This document is intended to be a sample of what a student's individualized education plan might look like if he/she thinks they are interested in pursuing a career in this field of study. Course offerings may vary by school Pathways: Welding Technology
	WLD	115 – SMAW Plate 131 – GTAW Plate AC 121 – Intro to C	(TIG)							
					Program Lead	ding to Welding 1	echnology Diplom	a at Wilkes Comm	unity College	
			Fall Semester			Semester .		Summer		Credentials / Certificates Available to Students
Post-Secondary (Grade 13)	BPR 111 - Blueprint Reading Composition				ENG 110 Freshman Composition or Writing & Inquiry WLD 115 - SMAW P WLD 131 - GTAW PI MAC 121 - Intro to 0 MAT 110 or 115 or 1 or 143	Practices ate (Stick) tte (TIG) NC			SMAW, GMAW, FCAW, GTAW	

Wilkes LEA

Machining & Maintenance

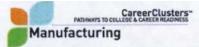


Applied Engineering Technology Machining & Maintenance

4						IVIachini	ing & iviaintena			
Education Level	Grade	English	Math	Social Studies	Science	Health/PE, and Other Electives	Elective	Elective	Elective	CTE Completer To be a "completer", students must earn at least three credits from the Foundational Course list (with one credit being from a second level course - indicated by a " below). The fourth credit can come from either the Foundational or Enhancement course lists.
1	\perp	Courses li	sted in BOLD p	rint are require	ed for graduation	n. Italicized course	s are recommended,	but not required for	graduation.	All CCP courses count as completer courses –
	9	English 1	Foundations of Math 1, Math 1, or Math 2	World History	Earth & Environmental Science	Health/PE	CTE Course {Recommend – MS Word, PowerPoint & Publisher}	CTE Course (Recommend – Technology, Engineering & Design)	Other Elective OR Math 1 -if also taking Found. of Math 1	if aligned with the coreer cluster. Foundational Courses Technology, Engineering & Design Scientific & Technical Visualization 1 & 2* Advanced Manufacturing 1 & 2*
ຄ	1 0	English 2	Foundations of Math 2, Math 2, or Math 3	American History 1	Physical Science	CTE Course (Recommend – MS Excel & Access)	CTE Course (Recommend – Advanced Manufacturing 1)	CTE Course (Recommend – Advanced Manufacturing 2*)	Other Elective OR Math 2 -if also taking Found. of Math 2	Technology Design* Engineering Design* Project Mgt. 1 & 2* CTE Advanced Studies)
Grades 9-12	1	English 3	Math 3 or	American	Biology	Elective Recommend -	CTE Course (Recommend –	ССР	ССР	Enhancement Courses MS Word, PowerPoint & Publisher MS Excel & Access Entrepreneurship 1 Principles of Business & Finance
Secondary (Grades 9-12)	_	Ligisii 3	Other Math	History 2	ыоюду	Foreign Lang.1, Other CTE course	Personal Finance)	ССР	CCP	Career Management Horticulture 1 Personal Finance CTE Internship
,								ССР	CCP	CCP Courses (Fall)
	1 2	English 4	4 th Meth	Civics & Economics	Chemistry or Other Elective	Elective Recommend - Foreign Lang 2, Other CTE course	CTE Course (choose from the courses listed in the shaded columns on the right)	CCP	CCP	ATR 112 – Intro to Automation DFT 119 – Basic CAD (Spring) ISC 112 – Industrial Safety MEC 111 – Machine Processes I MAC 121 – Intro to CNC

Yancey LEA

Applied Engineering Technology - Machining



Mayland Community College Career and College Promise High School Pathway 2017-2018





Man	ufacturin	ıg		Career and (College Promis 2017-2		Pathway	William Strange	MAYLAND COMMUNITY COLLECT	
Program of Stu	dy: Applied Engin	eering Technology						Machining Pro	cesses Certificate (C40130N	
					High Scho	ol Plan				
	Grade	English Required Courses	Math Required Courses				Required and/or Recommended Courses			
Mountain Heritage High School	9	English I	Math I	Earth/ Environmental Science	World History	Health and PE	MS IT Academy: Word and PowerPoint BM10	Elective	Drafting I IC61	
ge High	10	English II	Math II	Biology	Civics and Economics	Elective	Personal Finance BF05	Elective	Drafting II – Architectural IC62	
Herita	11	Confish III	Math III	Physical Science	American	American	Elective	ISC 112 (2) Industrial Safety	MEC 111 (3)	
ountain	"	English III	Machill	or Chemistry	History I	History II	Elective	MAC 121 (2) Intro to CNC	Machining Processe	
Σ	12	12 English IV		Elective	Elective	CTE Internship	Elective	MEC 110 (2) Intro to CAD/CAM	MAC 122 (2) CNC Turning	
			Math			CS97		MEC 112 (3) Machining Processes II	MAC 124 (2) CNC Milling	
			C. Carlotte		Community Co	ollege Plan				
	Year 13						No. 15 Personal line			
1000	Fall	ACA 115 (1)	DFT 154 (3)	TDP 110 (3)	BPR 111 (2)	CIS 110 (3)				
	Spring	DFT 254 (3)	TDP 140 (3)	DFT 121 (2)	ENG 111 (3)	HUM 110 (3)				
	Summer	HYD 110 (3)	- 1000							
MCC	Year 14								Associate Degree (A40)	
2	Fall	MAT 121 (4) or MAT 171 (4)	ELN 260 (4)	ELC 131 (4)	ENG 1	12 (3) or 14 (3) or 231 (3)				
	Spring	ELC 117 (4)	ATR 112 (3)	P5Y 150 (3) or SOC 210 (3)	Com	231 (3)				
Articulated Cr	edits:		2	Occupation(s):	CNC Machine Tool	Programmers.	O*Net Code: 51-4012.	00		
	lits for the Certific ing for the Degree		16 53-54		Metal & Plastic Machinist		O*Net Code: 51-4041.	00		
College Cont Brenda McFo Dean, Busino (828) 766-13	ee ess, Engineering	, and Technical St bmcfee@mayla	tudies nd.edu	Salary: Demand:	Hourly: \$14.13 - \$30.06 Average Hourly (2016 Median): \$21.45 Yearly: \$29,390 - \$62,530 Average Yearly (2016 Median): \$44,620 Much faster than average (2014-2024)			(a)	*	
High School Ronnie Rand MCC High Sc (828) 682-61	lolph hool Liaison – Y	ancey County		Articulated Credits: Drafting I (IC61) and						

Yancey LEA

Applied Engineering Technology - Mechantronics



Mayland Community College
Career and College Promise High School Pathway
2017-2018





					2017-20	018		THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAM	COMMUNITY COLLEGE	
Program of St	tudy: Applied Eng	ineering Technology							Mechatronics (C40130EH)	
					High School	ol Plan				
	Grade	English Required Courses	Math Required Courses	Science Required Courses	Social Studies Required Courses		Required a	nd/or Recommended Course	5	
School	9	English I	Math I	Earth/ Environmental Science	World History	Health and PE	MS IT Academy: Word and PowerPoint BM10	Elective	Orafting I IC61	
ige High	10	English II	Math II	Biology	Civics and Economics	Elective	Personal Finance BF05	Elective	Drafting II – Architectural IC62	
Mountain Heritage High School	11	English III	Math III	Physical Science or Chemistry	American History I	American History II	Elective	ATR 112 (4) Introduction to Automatic	HYD 110 (3) on Hydraulics/Pneumatics I	
×	12	English IV	MAT 171 (4) Precalculus Algebra	Elective	Elective	CTE Internship CS97	ELC 131 (4) Circuit Analysis	ELN 260 (4) Program Logic Controller	ELC 117 (4) s Motors and Controls	
		1			Community Co	illege Plan			District Control	
Mark I	Year 13									
57.85 50	Fall	ACA 115 (1)	DFT 154 (3)	TDP 110 (3)	BPR 111 (2)	ISC 112 (2)	MAC 121 (2)	MEC 111(3)		
	Spring	DFT 254 (3)	TDP 140 (3)	DFT 121 (2)	MAC 122 (2)	MAC 124 (2)	MEC 110 (2)	MEC 112 (3)		
NGC NGC	Summer	ENG 111 (3)	CIS 110 (3)							
ž	Year 14								Associate Degree (A40130	
	Fall	ENG 112 (3) or ENG 114 (3) or COM 231 (3)	HUM 110 (3)	PSY 150 (3) or SOC 210 (3) MAT 121 (4) or SOC 210 (3) MAT 171 (4) Students to take MAT 171 as a 4						
ticulated Cre					Electro-Mechanical					
quired Credit	its for the Certific ng for the Degree		18 51-52	ccupation(s):	Manufacturing Prod Robotics Technician	duction Technicians	O*Net Code: 17-3024 O*Net Code: 17-3029 O*Net Code: 17-3024	.09		
	e ss, Engineering,	and Technical Stu	idies	alary:	Hourly: Average Hourly (20) Yearly: Average Yearly (20)		\$18.68 - \$47.15 \$31.29 \$38,850 - \$98,080 \$65,090	100	10	
28) 766-133		bmcfee@maylan	The state of the s	emand:	Little or no change (2014-2024)			A REAL	
gh School Co onnie Rando CC High Scho 28) 682-610	lph ool Liaison – Ya	nncey County	Di	Articulated Credits: Drafting I (IC61) and Drafting II – Architectural (IC62) = DFT 119 (2)						

Yancey LEA

Applied Engineering Technology - Welding



Mayland Community College
Career and College Promise High School Pathway
2017-2018





		plicate in			High School	Plan			FOR COMMITTEE			
Mountain Heritage High School	Grade	English Required Courses	Math Required Courses	Science Required Courses	Social Studies Required Courses		Required and/or Recommended Courses					
	9	English I	Math I	Earth/Environm ental Science	World History	Health and PE	Personal Finance BF05	Elective	MS IT Academy Word and PowerPoint BM10			
	10	English II	Math II	Biology	Civics and Economics	Elective	Elective	Elective	Drafting I IC61			
	11	English III	Math III	Physical Science or Chemistry	American History I	American History II	Elective	WLD 115 (5) SMAW (Stick) Plate	WLD 110 (2) Cutting Process WLD 141 (3) Symbols & Spec			
	12	English IV	One Additional Math	Elective	Elective	CTE Internship CS97	Elective	WLD 121 (4) GMAW (MIG) Plate	WLD 131 (4) GTAW (TIG) Plat			
					Community Colle	ge Plan						
	Year 13						Interm	nediate Welding (C50420I)	or Diploma (D5042			
	Fall	WLD 116 (4)	WLD 122 (3)	WLD 143 (2)	ACA 115 (1)	ENG 101 (3) or ENG 111(3)						
	Spring	WLD 132 (3)	WLD 151 (4)	WLD 261 (2)	MAT 110 (3)							
ğ	Summer	PSY 150 (3)										
2	Year 14							Associa	ite Degree (A55280			
	Fall	ISC 112 (2)	MEC 111 (3)	MAC 121 (2)	COM 231 (3)	HUM 110 (3)			The state of the s			
	Spring	MEC 110 (2)	MEC 112 (3)	MAC 122 (2)	MAC 124 (2)	SOC 210 (3)						

Required Credits for the Certificate:	18
Hours Remaining for the Inter. Certificate:	18
Hours Remaining for the Diploma:	25
Hours Remaining for the Degree:	53

College Contact: Brenda McFee

Dean, Business, Engineering, and Technical Studies (828) 766-1330 <u>bmcfee@mayland.edu</u>

High School Contact: Ronnie Randolph

MCC High School Liaison – Yancey County (828) 682-6103 rmrandolph@yanceync.net

Occupation(s): Welders, Cutters, and Welder Fitters O*Net Code: 51-4121.06 Solderers and Brazers O*Net Code: 51-4121.07 Welding, Soldering, and Brazing Machine Setters, Operators O*Net Code: 51-4122.00 and Tenders Salary: \$12.85 - \$27.15 Hourly: Average Hourly (2016 Median): \$18.49 Yearly: \$26,720 - \$56,470 Average Yearly (2016 Median): \$38,460 Slower than average (2014-2024)





HIGH COUNTRY COMMUNITY COLLEGE MANUFACTURING & WELDING CREDIT & NON-CREDIT PROGRAM OFFERINGS

CALDWELL COMMUNITY COLLEGE & TECH INS	STITUTE MANUFACT	JRING & WELDI	NG COURSES	
	AS Degrees	Diplomas	Certificates	Cont. Ed
Mechanical Engineering Technology	✓	✓		
Electrical Systems Technology	✓	✓	✓	
Electronics Engineering Technology	✓			
Heating, Ventilation & Air Condition				✓
Industrial Maintenance				✓
Welding*			✓	✓
Drafting			✓	
Applied Engineering Tech.	✓			
CNC Technology	✓			
Electronics & Computer Eng.	✓	✓		
Industrial Systems Tech.	✓	✓		
Maching & Maintenance Tech.	✓	✓	✓	***************************************
3D Design Tech, Robotics, Automation & Mechatronics Tech.	✓	✓	√	
Basic Engineering Tech.		✓	✓	
CNC Machining Tech.		✓	✓	
Home Automation				✓
Basic (Level I) CNC Machining				✓
Advanced (Level II)				✓
Level I Electronics Tech.				✓
Equipment Maintenance				✓
Machine Shop				✓
PLC Control Systems	***************************************			✓
* Offered in Watauga				

MAYLAND COMMUNITY COLLEGE MANUFACTURING & WELDING COURSES				
	AS Degrees	Diplomas	Certificates	Cont. Ed
Applied Engineering Tech.	✓			
CNC Technology	✓			
Electronics & Computer Eng.	✓	✓		
Industrial Systems Tech.	✓	✓		
Machining & Maintenance Tech.	✓	✓	✓	
3D Design Tech, Robotics, Automation & Mechatronics Tech.	✓	✓	✓	
Basic Engineering Tech.		✓	✓	
CNC Machining Tech.		✓	✓	
Basic (Level I) CNC Machining				✓
Heating, Ventilation & Air Condition				✓
Welding				✓

WILKES COMMUNITY COLLEGE MANUFACTURING & WELDING COURSES				
	AS Degrees	Diplomas	Certificates	Cont. Ed
Applied Engineering Tech.	✓			
CNC Technology	✓			
Electronics & Computer Eng.	✓	✓		
Industrial Systems Tech.	✓	✓		
Maching & Maintenance Tech.	✓	✓	✓	
3D Design Tech, Robotics, Automation & Mechatronics Tech.	✓	✓	✓	
Basic Engineering Tech.		✓	✓	
CNC Machining Tech.		✓	✓	
Home Automation				✓
Basic (Level I) CNC Machining				✓
Advanced (Level II)				✓
Level I Electronics Tech.				✓
Equipment Maintenance				✓
Heating, Ventilation & Air Condition				✓
Industrial Electrical Systems				✓
Machine Shop				✓
PLC Control Systems				✓
Welding				✓

STACKABLE CREDENTIALS OFFERED BY HIGH COUNTRY COMMUNITY COLLEGES:

CALDWELL COMMUNITY COLLEGE:

ACT- CRC Career Readiness Certificate

- American Welding Society's (AWS) Certified Welder Certifications
- Basic Programmable Logic Controls (PLC)
- Programmable Logic Controls (PLC) Programming and Troubleshooting
- Basic Machining
- Fork Lift Operator *Certifying body is the National Safety Council for Powered Industrial Lift Trucks
- Workplace Safety *OSHA 10 hour and 30 hour classes for General Industry (1910 Standards) and OSHA 10 hour and 30 hour classes for Construction (1926 Standards)
- Low Voltage ARC Flash training per the standards set forth by E-Hazard.

MAYLAND COMMUNITY COLLEGE:

- ACT- CRC Career Readiness Certificate
- American Welding Society's (AWS) Certified Welder Certifications
- NCCER (recognized as one of the premier workforce development organizations for the construction and maintenance industry)
- MSSC Certified Logistics Technician Certification (CLT)
- The Computer-Integrated Machining Certification
- Basic Programmable Logic Controls (PLC)
- Programmable Logic Controls (PLC) Programming and Troubleshooting
- Basic Machining
- Certified Production (CPT) Technician Safety

WILKES COMMUNITY COLLEGE:

- ACT- CRC Career Readiness Certificate
- American Welding Society's (AWS) Certified Welder Certifications
- Basic Programmable Logic Controls (PLC)
- Programmable Logic Controls (PLC) Programming and Troubleshooting
- Basic Machining
- Mechanical Power Transmission Fundamentals Level 1
- Certified Production (CPT) Technician Safety COMING SOON
- Fork Lift Operator
- Workplace Safety (OSHA Classes)

YANCY COUNTY MAYLAND COMMUNITY COLLEGE ANSPACH ADVANCED MANUFACTURING SCHOOL



April 13, 2015 BURNSVILLE – State and local dignitaries gathered here Monday to celebrate the opening of a \$2.4 million advanced manufacturing school at Mayland Community College's Yancey Learning Center.

"Manufacturing is back in North Carolina and it's the future of North Carolina," Gov. Pat McCrory said to about 200 people just outside the new building's front doors.

"We've always heard that manufacturing was dead, that we had to find something new," McCrory told the crowd. "No. We gotta keep making, building and innovating things — and we gotta make sure we have the talent to do it."

Construction of the facility finished in February and 35 students already have begun training in vocations including machining and design, said Bill Baker, a board member of the community college's foundation.

Local company executives, elected officials and educators hope the Anspach Advanced Manufacturing Center will begin addressing the dearth of workers with engineering skills that regional and national employers seek, said Dr. William Anspach Jr.

"There are between 600,000 and 700,000 vacant jobs in our country that manufacturers can't fill because they can't find qualified workers," Anspach Jr. said.

He trained as an orthopedic surgeon, retired, then became an inventor and manufacturer of neurosurgical power tools.

The center bears Anspach's family name because the doctor and entrepreneur came up with the idea for the project four years ago and donated an undisclosed sum of money to help bring it to fruition, Baker said.

Many corporate and private donors also gave funding to make the training center a reality, said Beth Morris, a community college spokeswoman.

The Charlotte-based Duke Energy Foundation, for instance, gave \$250,000 for the purchase of a three-dimensional metal printer.

Mayland Community College will become only the third institute of higher education in Western North Carolina with that piece of high-tech equipment, said school President John Boyd.

"A student using it could take titanium dust and print off an artificial knee," Boyd said. "It's the kind of the thing that will help this center be able to provide the level of workforce we haven't been able to provide before."

Another example: graduates of the program will be able to offer employers experience in mechatronics — a method of manufacturing that combines mechanical engineering, computing and electronics, Boyd said.

That's great news to those such as Henry Street, plant manager at the BRP Spruce Pine factory.

The Quebec, Canada-based Company designs and manufactures recreational vehicles including the Sea-Doo Watercraft and Can-Am Roadster.

"This type of facility will help us reduce the time (our products will get) to market," Street said.

BRP is among the private-sector companies that contributed money to the center, Street said.

The company is looking to fill between 30 and 40 openings that pay from \$12 an hour to \$22 an hour, he said.

To make sure BRP and other companies like it begin receiving and continue to receive the workers they need, McCrory said North Carolinians should show children the career options they have starting in middle school.

"We have to communicate to them that this is one of the choices they can make," the governor said. "They can learn a skill, a vocation, a trade, in addition to building their intellectual capability."

McCrory emphasized that type of training won't earn them "just jobs, but careers. That's what people want," he said.

The manufacturing industry in North Carolina accounted for 11.1 percent of total employment in the state in 2013, higher than the national figure of 9 percent, according to the most recent data available from the state Department of Commerce.

In rural areas, the total was even higher, at 15.1 percent. Those jobs pay an annual wage of \$54,500 statewide, data showed.

HIGH COUNTRY UNDERGRADUATE & GRADUATE OPTIONS At a Glance

Appalachian State University

- Management / Business degrees at ASU to assist in creating management talent for associate degree completers and/or incumbent employees seeking career advancement within local companies
- New online undergraduate degree program "Workforce Development at ASU to help working adults complete a bachelor's degree in Leadership/Management. Prior community college coursework and work experience will be accepted. Begins Fall 2018.

Western Carolina University

- Western Carolina University has distance locations across western North Carolina, concentrating on technical operations. The curriculum is designed for career-focused working adults who wish to pursue their degree through part-time study. The first two years of the program may be taken at any North Carolina Community College or on campus in Cullowhee. Students receive instruction through online courses and evening classes at offsite locations.
- The B.S. in Engineering Technology Technical Operations (ETO) is a part-time program for working professionals offered at three off-campus sites: Asheville, Hickory (which is within driving distance to several High Country counties), and Spindale, North Carolina. The ETO program enables individuals employed in business, industry and state-related occupations to pursue a four-year degree through a combination of part-time evening study and online courses. Graduates earn a B.S. degree in Engineering Technology -Concentration in Technical Operations.

North Carolina State University

- NC State offers a series of completely online graduate level programs in engineering programs which would be beneficial for a High Country student or incumbent working looking to further their education beyond a bachelor's degree.
 - o Electrical Engineering, MS
 - o Engineering, ME
 - Industrial Engineering, MIE
 - Mechanical Engineering, MS
 - o Nanoengineering, MNAE

6. Work Based Learning

Work based learning is both an educational as well as training strategy that provides pathway enrollees with real-life work experiences where they can apply academic theory with on-the-job training. It's a concept that has been in practice for many years and is an integral part of workforce development and creating a healthy employee pipeline. Industry works very closely with DPI, the community colleges, as well as with the NCWorks Career Centers in coordinating work based learning opportunities. The High Country Workforce Development Board consistently utilizes the On-the-Job Training Program (training subsidy) and paid work experience as a work based learning training strategy for WIOA eligible adults, dislocated workers, and youth.

Traditional career fairs, onsite industry tours and in-class guest speakers have been a staple of successful partnering between the High Country's manufacturing industry and the school systems for the purpose of career awareness. CTE Student field trips, in addition to teacher exclusive field trips and even time limited internships, have enhanced the experience beyond awareness to actual work based exposure and learning. CTE directors have provided a list of industry partners that provide Work Based Learning opportunities. (Exhibit 6A). Survey responses from the High Country Employers and Community Partners provide additional work based learning opportunities within the High Country. (Exhibit 6B)

The NCWorks Career Centers located in the High Country help promote the manufacturing training programs of the three community colleges. Career Center WIOA staff disseminate information and enroll interested Adult, Dislocated and Youth clients in the colleges' respective manufacturing diploma or certificate programs. OJT funding has been limited due to funding stream challenges. Finding employers to participate is not an issue. Finding clients and funding the positions are. It was noted by the NCWorks Career Center manager that there are simply more positions opened in manufacturing than there are interested and engaged prospective workers. This presents a unique 'career awareness' opportunity for the High Country to make manufacturing and welding positions fashionable again.

NCWorks Career Centers in the High Country are committed to having their staff visit employer sites as well. Some Career Centers in the High Country either have senior management participate on site tours or have site tours as a part of their strategic plan. The Wilkes NCWorks Career Center, which includes Ashe and Allegheny, had four staff members tour United Chemi-Con and three tour Louisiana Pacific.

High Country CTE Internship & Time Limited Work Based Learning Sites By County

Alleghany CTE	Hester's Welding Pioneer Eclipse Walker's Welding and Mufflers NAPCO		
Ashe CTE	United Chemi-Con Leviton		
Avery CTE	None at this time		
Mitchell CTE	BRP		
Watauga CTE	Hospitality Mint		
Wilkes CTE	Tyson Technical Services WorldWide Protective Products Weyerhaeuser Elementia APPRENTICESHIP COMPANIES (New)		
	ECMDJeld-WenWilkes Communications		
Yancey CTE	Altec		

High Country Career Awareness & Work Based Learning Offerings By Company

Company	Speakers	Career Fairs	Internships	Facility Tours for Students	Apprenticeships
Amano Pioneer Eclipse		✓	✓	✓	
Tyson Technical Services				✓	✓
Meadows Mills	✓			✓	✓
Weyerhaeuser	Manufacturing Day	✓	(Teacher Externships)		
Elementia		✓	(Pending)		
Napco	Manufacturing Day	✓			
Jeld-Wen				✓	✓
East Coast Mill Distributors					✓
Gardner Glass				✓	✓
Interflex Group					✓
United Chem Con	✓	✓	Internships + (Teacher Externships)	√	
Leviton			✓		
Bell Aircraft (Neighboring TN)				✓	
Altec		✓		✓	
BRP		✓		✓	

7. Multiple Points of Entry and Exit

The High Country regional partnership has developed a pathway which allows entrance from many points: whether a high school student, a high school graduate, some experience, from zero to several credentials, with a diploma, certificate, associates or bachelor's degree and/or with many years of experience. As highlighted in Exhibit 7A, the pathway has entry and exit ramps for a wide variety of the population including everyone from youth to the unemployed, dislocated, as well as active duty or transitioning military service members and special populations (vocational rehabilitation clients).

Based on education and training offerings in the High Country region, here are a few occupations that potential manufacturing and welding completers could prepare for:

- Machine Operators
- Welders
- Production Workers
- CNC Machinists
- Tool & Die Maker
- Quality Control Techs

- Engineers
- Engineering Techs
- Product Developers
- Machine Techs
- CNC Programmers
- Plus many more....

By taking a series of non-degree classes and certification coursework, an enrollee could be qualified to start as a semi-skilled employee in manufacturing. Industry recognized stackable credentials are offered by all three community colleges. (Exhibit 7B) Should the enrollee at a later time decide to return to school, their successfully completed classes and credential programs can seamlessly be accepted by the Community College system, thus allowing the enrollee to quickly complete their degree programs. Once a pathway participant has an associate's degree, the participant could complete a bachelor's degree with Western Carolina University or NC State using their online Engineering Degree programs. In addition, Appalachian State University will begin offering an online undergraduate degree completion program (Fall 2018) that targets working adults in business and industry. It's called "Workforce Development", and its purpose is to provide access to a bachelor's degree in leadership/management. The expectation is that students will have community college credentials and many years of experience when entering the program. This new approach to an applied degree will enable long-term employees lacking undergraduate degrees the upward mobility if a Bachelor's degree is required by the employer.

Andrew Holland, the Veterans Representative for the High Country, has attended the manufacturing pathway meetings. He spoke to the group about Veterans skill levels and great soft skills, and forwarded a Recruiting Practice pass out for employers that expressed interest in hiring veterans. (Exhibit 7C) The three community colleges are open to accepting the prior learning and training of active duty military and veterans as transfer credits. It is offered on a

case-by-case basis as long as they submit their military training and course work transcript for review. (Exhibit 7D).

Local NC Vocational Rehabilitation staff have participated in the High Country manufacturing pathway meetings as well. Jim Stout, a VR Business Relations Representative, addressed meeting attendees at the January 24th meeting and highlighted how local VR offices can add more enrollees in the pipeline. He provided a pass out for meeting attendees so there can be a continued conversation about how the VR Employer Services can help. (Exhibit 7E)

Regional Former Offender Specialist Vanessa James also attended a meeting and reminded our employers to think about the Former Offender community. She explained the benefits and safety guards put in place for employers as well as that we need to give a chance to this often untapped non-traditional employee pipeline. Not only do many of them deserve a second chance, but they end up being loyal and diligent workers. Exhibit 7F presents incentives for employers that Ms. James shared with our manufacturing and welding employers.

NCWorks Apprenticeship programs were also discussed. Wayne Shepherd, CTE Director for Wilkes School System, gave a detailed presentation at the February 21st meeting on how he got involved with various employers and the Wilkes Community College to create a formalized Youth Apprenticeship. Employers include manufacturers in addition to other employment sectors. While they are still in the planning phase, they are currently interviewing last semester juniors and anticipate starting their first Youth Pre-Apprenticeship cohort this Summer 2018. (Exhibit 7G). That said, it was discovered while there are many internship opportunities, there are few Registered Apprenticeships in the High Country and yet a few manufacturers have expressed an interest in learning more. A workshop will be set up in the early summer with Youth Apprenticeship lead, Elizabeth Standafer.

Exhibit 7A

HIGH COUNTRY MANUFACTURING & WELDING CAREER PATHWAY LADDER



CAREER PATHWAYS SHOW HOW
ADDITIONAL EDUCATION AND
TRAINING CAN HELP YOU MOVE INTO
VARIOUS OCCUPATIONS. THIS IS A
REPRESENTATIVE EXAMPLE OF
POTENTIAL CAREER GROWTH IN
NURSING. IT MAY NOT

LOCAL SCHOOLS: APPALACHIAN STATE, NC STATE, WESTERN CAROLINA

BACHELOR'S

Engineers (Process, Electrical, Mechanical), Product Developers, Analysts (Management/Production)

SALARY RANGE: \$49,136—\$98,952

ASSOCIATE'S

Engineering Techs (Mechatronics, Electrical, Industrial & Mechanical)

SALARY RANGE: \$34,253 – \$48,714

LOCAL SCHOOLS:
MAYLAND COMM. COLLEGE,
CALDWELL CC&TI, WILKES
COMM. COLLEGE

POST-SECONDARY / CERTIFICATION/DIPLOMA

Machine Techs, CAD Designers, Electronic
Techs, Welders, Supervisors, CNC
Programmers, Tool & Die Makers,
Quality Control Techs, Fabricators, CNC
Machinists, Cutters (Laser, Plasma,
Water Jet)

SALARY RANGE: \$27,739 - \$60,581

LOCAL SCHOOLS: LOCAL HIGH SCHOOLS & COMM. COLLEGE

H.S DIP / GED

Production Workers, Assemblers, Material Handlers, Machine Operators, Quality Inspectors SALARY RANGE: \$21,690- \$28,795

STACKABLE CREDENTIALS OFFERED BY HIGH COUNTRY COMMUNITY

COLLEGES: CALDWELL COMMUNITY COLLEGE:

ACT- CRC Career Readiness Certificate

- American Welding Society's (AWS) Certified Welder Certifications
- Basic Programmable Logic Controls (PLC)
- Programmable Logic Controls (PLC) Programming and Troubleshooting
- Basic Machining
- Fork Lift Operator *Certifying body is the National Safety Council for Powered Industrial Lift
 Trucks
- Workplace Safety *OSHA 10 hour and 30 hour classes for General Industry (1910 Standards) and OSHA 10 hour and 30 hour classes for Construction (1926 Standards)
- Low Voltage ARC Flash training per the standards set forth by E-Hazard.

MAYLAND COMMUNITY COLLEGE:

- ACT- CRC Career Readiness Certificate
- American Welding Society's (AWS) Certified Welder Certifications
- NCCER (recognized as one of the premier workforce development organizations for the construction and maintenance industry)
- MSSC Certified Logistics Technician Certification (CLT)
- The Computer-Integrated Machining Certification
- Basic Programmable Logic Controls (PLC)
- Programmable Logic Controls (PLC) Programming and Troubleshooting
- Basic Machining
- Certified Production (CPT) Technician Safety

WILKES COMMUNITY COLLEGE:

- ACT- CRC Career Readiness Certificate
- American Welding Society's (AWS) Certified Welder Certifications
- Basic Programmable Logic Controls (PLC)
- Programmable Logic Controls (PLC) Programming and Troubleshooting
- Basic Machining
- Mechanical Power Transmission Fundamentals Level 1
- Certified Production (CPT) Technician Safety COMING SOON
- Fork Lift Operator
- Workplace Safety (OSHA Classes)

Recruiting Practices That Will Help Your Company Draw In Veterans

North Carolina's military <u>veterans</u> are some of the most highly skilled and highly experienced employees and managers among the U.S. workforce. Less than 1% of the population has ever served in the military - it's quite an elite group. The jobs within the military are as diverse and varied as in the civilian world. Here are some ideas to help build a strong veteran hiring program.

- 1. Ensure Top Down Support: Your company brand sets the purpose and tone for hiring veterans, and addresses the 'why' question: Why is your company interested in recruiting veterans? Be sure to articulate your business values and demonstrate how your company follows through on those values. Make sure the initiative has support of senior managers. A Veteran hiring program effects the entire organization and change is not something that can be done in a silo. Be sure everyone is on the same page, including understanding the investment and potentially longer time frames involved in hiring veterans.
- 2. Be Savvy In Translating Skills: The military uses job codes with descriptions of responsibilities and duties (MOS-Military Occupational Specialty codes), but most veterans do not have the civilian employee background to intuitively know how those codes translate into civilian roles. Know how to translate military jargon into civilian skills. Use skill translators, such as www.military.com/skills-translator/mos-translator that can translate those military skills. Employers need to take the initiative to do some investigative work and map out the military job codes that fit the roles of the company.
- 3. Learn About The Differences In Culture: The military operates from a very cutand-dried, command and control culture. To be promoted, job requirements must be fully met. Many veterans aren't aware that civilian jobs are often flexible and that overall experience may count for what they lack in requirements. Often veterans won't apply because of assumptions about needed prerequisites. Also, the military's respect for authority may inhibit them from showing much, if any, personality in an interview. This can mislead hiring managers who take this as a sign of lack of interest or a wrong cultural fit.
- 4. Be Proactive In Reaching Out: Be assertive about putting your company and the job opportunities you have before veterans. The popularity of the veteran market today, makes the market flooded with websites that address it, but there remains a lack of a mega site for veteran hiring. Recruiters should attend job fairs, be present and talk with veterans about their military roles...ask questions, explain, educate and listen. Offer something of value. Clearly outline how a military background is a good

fit for your organization. A good rule of thumb is to get to know the transition base contact. Usually they are part of the Military and Family Readiness office or Transition Assistance Program.

- 5. Don't Be Scared Of PTSD: The majority of veterans haven't engaged in combat and don't have Post-Traumatic Stress Disorder. Even those who do have it, the condition often does not preclude them from being employable. Be aware that you can't specifically ask if a veteran has PTSD or how their military service has affected their well-being. ALSO, remember that the Uniformed Services Employment and Reemployment Rights Act (USERRA) prohibits employers from asking if a veteran was honorably discharged.
- 6. Provide Ongoing Transition Support: Adjusting from a military to civilian culture is no less intense that adjusting to a foreign culture. It takes time to unlearn habits and ways of being that drove their military success but aren't part of the civilian culture. Many veterans are looking for a job that has a team environment, a strong sense of community and family atmosphere. Provide veteran employees with education about the ways and customs of your business culture. Many veterans have strong leadership and managerial skills and have been given more fiscal and people management responsibility at younger ages than their civilian workers.

FREE VETERAN RECRUITING WEBSITES

<u>https://www.ncworks.gov</u> (we have veteran representatives from the coast to the mountains willing to help with your recruiting needs.)

www.Military.com www.HireVetsFirst.gov www.TurboTap.org www.HelmetstoHardhats.org www.USAJobs.gov

For further information, Contact your High Country Career Veterans Advisor Andrew Holland (336) 838-5164 x-2034

william.holland@nccommerce.com

HIGH COUNTRY COMMUNITY COLLEGES POLICY ON MILITARY TRAINING

MAYLAND COMMUNITY COLLEGE:

From: Musich, Michelle [mailto:mmusich@mayland.edu]

Sent: Tuesday, March 13, 2018 3:09 PM

To: Thompson, Patricia A <patricia.thompson@nccommerce.com>; Rita Earley <rearley@mayland.edu>

Subject: Military Experience Policy

At Mayland Community College we use the Guide to the Evaluation of Educational Experiences in the Armed Services to evaluate military training (this is the official policy). If we offer equivalent coursework, the Director of Admissions, Records, and Registration awards credit based on the credit recommendation provided in this Guide. We also rely heavily on the recommendation printed on the military transcript, which I believe is straight from the Guide. We are also willing to look at credit on a case by case basis.

If we see a need or if it is requested by the student we will have an Academic Dean review a course for possible credit.

Please let me know if you need anything else.

Michelle



Michelle Musich, LPC, NCC
Dean of Students
Title IX Coordinator
Mayland Community College
PO Box 547
Spruce Pine, NC 28777
828-766-1262
mmusich@mayland.edu

CALDWELL COMMUNITY COLLEGE & TECHNICAL INSTITUTE:

From: Dena Holman [mailto:dnholman@cccti.edu]

Sent: Tuesday, March 13, 2018 4:05 PM

To: Thompson, Patricia A <patricia.thompson@nccommerce.com>

Subject: Military Experience Policy

Good afternoon Patricia,

Yes CCC&TI has a policy and process for awarding military credit as established in 2009 outlined here: Military Credit Policy online at: http://cccti.smartcatalogiq.com/2018-2019/College-Catalog/Academic-Standards/Military-Credits.

While we have not served a tremendous number of veteran we are a military friendly school. Please let us know if we can be of further assistance.

Dena

Dena Holman
Vice President Student Services
Caldwell Community College & Technical Institute
2855 Hickory Blvd.
Hudson, NC 28638

Office phone: 828-726-2737

Fax: 828-726-2709

Email: dnholman@cccti.edu

WILKES COMMUNITY COLLEGE

From: Michael Ward [mailto:mrward284@wilkescc.edu]

Sent: Wednesday, March 14, 2018 5:15 PM

To: Thompson, Patricia A <patricia.thompson@nccommerce.com>

Subject: Military Experience Policy

Patricia,

I hope you are doing well. Please see below for the answers to your questions.

Towards that end, my question: Do you have a policy for reviewing and possibly accepting military veterans' training?

We do review military transcripts.

Credits for Military Service: Credits will be granted, where applicable, for military experience in accordance with the recommendations of the American Council on Education's Guide to the Evaluation of Educational Experiences in the Armed Services.

The maximum credit transferable from all outside sources is 75%. At least 25% of the credit hours required for graduation must be earned through instruction by Wilkes Community College. This 25% cannot include credit by examination hours taken at Wilkes Community College. To obtain transfer credit or advanced standing, students must submit official documentation to the Registrar's Office. Students should request evaluations of all official transcripts and/or scores submitted after they have been admitted to the college and placed in a program of study.

The NC Community College system is currently in the process of developing an equivalency list to show XXX military course equals XXX college course. They have completed some of the standardization of the military courses and training, but have not finished all of the courses yet. We review each transcript that we receive to see what courses best fit their training and award the credit if applicable.

Could you let me know what Wilkes CC does if a veteran wants to have their military transcripts reviewed?

The student would need to have their official military transcript sent to our admission department when they apply to attend Wilkes Community College. Once we receive the transcript, we will review it and apply all applicable credit. We may require the student to meet with an instructor to determine what credit we can give them based on the knowledge they obtained during their military training.

Please let me know if you have any further questions.

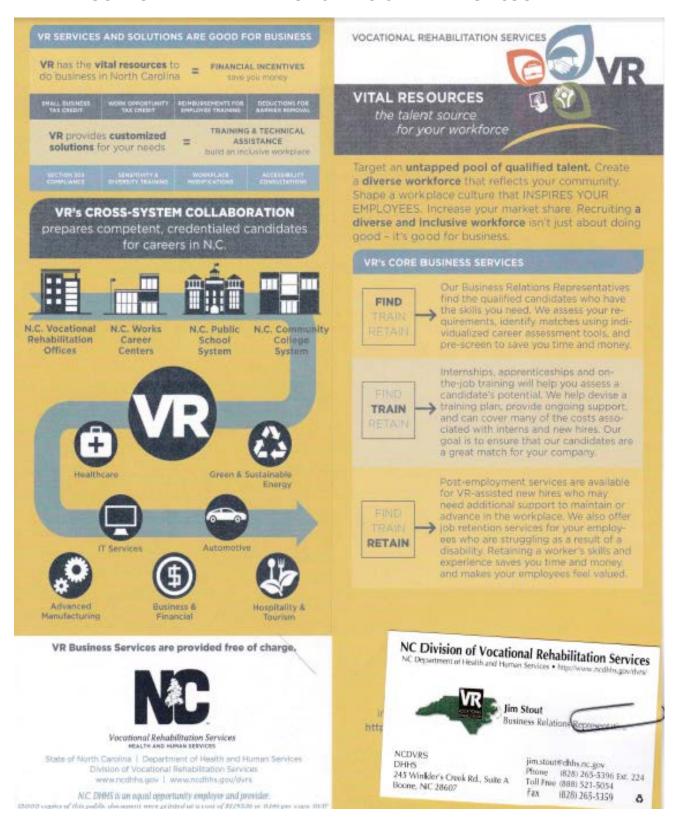
Thank you,

Michael Ward | Registrar

Wilkes Community College | www.wilkescc.edu P.O. BOX 120 Wilkesboro, NC 28697

Office: (336) 838-6489 FAX: (336) 902-3212

VOCATIONAL REHABILIATTION SERVICES IN THE HIGH COUNTRY



FORMER OFFENDER SERVICES IN THE HIGH COUNTRY



NC COMMERCE REENTRY INITIATIVE

Our mission is to ensure job seekers with criminal records are provided the resources they need to overcome the barriers to employment they face due to their record.

Incentives for Employers Who Hire Individuals With Criminal Records

The Federal Bonding Program provides insurance to employers who hire "at risk" workers, including those with criminal records. The hiring business is eligible for financial protection of \$5,000 for six months after hiring an individual with a criminal record. The hiring employer must contact a Regional Reentry Specialist, the NCWorks Career Center or the State Bonding Coordinator listed below to take advantage of the program. For additional information you may also visit the Federal Bonding website at: www.bonds4jobs.com

Work Opportunity Tax Credit (WOTC) provides tax incentives for employers who hire individuals with criminal records and other target groups. The tax credit for each target group varies, but the total for an individuals with a criminal record equals as much as \$2,400. To qualify, individuals with criminal records have to be hired within one year of either a felony conviction or release from prison. Contact your local NCWorks Career Center for more information or visit the website: http://www.nccommerce.com/workforce/businesses/work-opportunity-tax-credit and or the Dept. of Labor: https://www.doleta.gov/business/incentives/opptax/

100-Day No Fault: Info for Businesses: If you have to terminate a new employee within a 100-day period, your unemployment insurance account will not be charged. Applicable only to employees terminated within a 100-day period from the date of hiring, due to a bona fide inability to do the work. Employers must request non-charging by contacting the Division of Employment Security. https://des.nc.gov/DES/Static?page=100DayGuarantee

The following services are offered by your local NC Works Career Centers:

- One-on-one assistance
- Career assessments
- · Job interview, resume, and cover letter preparation
- · Referrals to jobs based on candidate's qualifications
- Referrals to other resources
- Access to job fairs and group workshops

To access the online job bank or locate the nearest NCWorks Career Center visit the website: www.NCWorks.gov

NC Commerce Reentry Initiative State and Regional Staff				
NC Commerce Reentry Coordinator Raleigh 919-814-0457 wendi.bowen@nccommerce.com				
Vanessa James Asheville 828-251-6200 Ext. 265 vanessa.james@nccommerce.com				
Brian Long Winston Salem 336-776-6790 brian.long@nccommerce.com				
Janie Rollins Salisbury 704-639-7529 Ext. 204 janie.rollins@nccommerce.com				
Alesha Garrett Raleigh 919-814-0458 alesha.jones-garrett@nccommerce.com				
Victor Hinannt Greenville 252-355-9067 Ext. 235 victor.hinnant@nccommerce.com				
Michael Westray Fayetteville 910-486-1010 Ext. 2233 michael.westray@nccommerce.com				

Wilkes County Pre-Apprenticeship Draft Program Information & Timeline

Wilkes County Pre-Apprenticeship Requirements

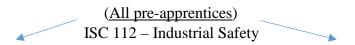
(Summer, 2018)

To qualify for a "pre-apprenticeship"... all applicants must meet the following criteria:

- Submit a pre-apprenticeship application prior to the deadline (April 13, 2018)
- Have completed their junior year in high-school
- Be eligible to participate in the Career and College Promise program their senior year of high school
- Be at least 16 years of age
- Possess a valid NC driver's license and have a reliable means of transportation
- Be in good academic standing, and making satisfactory progress toward high school graduation
- Be able to pass any related technical skills tests deemed appropriate by the sponsoring agency
- Pass a background / drug screen (if required)
- Submit three (3) teacher/principal recommendations (attached)
- Attend pre-apprenticeship orientation sessions (at least 1 parent/guardian must accompany the applicant)
- Participate in the pre-apprenticeship interview process
- Possess the ultimate goal of being selected as an "Adult Apprentice" at the sponsoring agency performing duties specifically related to the pre-apprenticeship program.

Summer Pre-Apprenticeship requirements include:

1) Satisfactorily completing the following courses at WCC (*unless already completed in HS*):



(Pre-apprentices in Information	(Pre-apprentices in Manufacturing jobs)
<u>Technology jobs</u>)	
CTI 110 – Web, Pgm, & Database	MEC 111 – Machine Processes 1
Foundation	or BPR 111 – Blueprint Reading
or CTS 120 – Hardware / Software	
Support	

- 2) Completing a minimum of 120 on-the-job training hours during the summer prior to the senior year in high school. This includes:
- Committing the weeks of June 11-29 and July 9-27 to the program.
- Working under the supervision of a mentor at the sponsoring agency a minimum of 20 hours per week for the duration of the six week program.
- Being paid minimum wage while participating in the pre-apprenticeship program. (*Pre-apprentices are paid while in class at WCC and while at work*)

Local Companies seeking Pre-Apprentices... and the number available this summer:

Manufacturing: Meadows Mills (1 Manual Machinist, 1 Machine Builder)

Gardner Glass (2 Industrial Maintenance Technicians)
East Coast Mill Distributors (? Industrial Maintenance

Technician)

Jeld-Wen (2 Industrial Maintenance Technicians)

Information Technology: Infusion Points (1 Cyber Security Specialist, 1 Graphic

Designer)

Interflex Group (1 Pre-Press Operator, 1 Industrial Maintenance

Technician)

Wilkes Communications (1 Customer Service Representative, 1 Computer Support Specialists, 1 Network Support Technician)

NOTE: In order to keep all "pre-apprenticeships" under one umbrella, I thought it would

be best to group everyone in one of two general categories (Manufacturing and Information Technology). Obviously, the plans for the "apprenticeship" will be much more specific to

your needs.

Please let me know if the following timeline works for you!

Proposed date for submitting *DRAFT* of the pre-apprenticeship plan to Sherry Phelps: Jan. 31

Proposed dates for advertising pre-apprenticeship opportunities/requirements: Month of March

Proposed Pre-Apprenticeship Orientation Schedule:

Parent Information Session @ Stone Ctr. – March 29 (6:00 pm)

Meadows Mills – Monday, April 9 (6:00 – 7:00 pm) Gardner Glass – Tuesday, April 10 (6:00 – 7:00 pm) ECMD – Thursday, April 12 (6:00 – 7:00 pm) Jeld-Wen – Friday, April 13 (6:00 – 7:00 pm)

Infusion Points – Monday, April 9 (6:00 pm) Interflex Group – Tuesday, April 10 (6:00 pm) Wilkes Communications – Thursday, April 12 (6:00 pm)

Proposed dates for Companies to Conduct Interviews: April 16-20

Proposed dates for extending offers to students selected for pre-apprenticeships: April 27

Deadline for students to accept or decline offer: April 30

8. Evaluation

The High Country manufacturing partnership is committed to ensuring that the Career Pathway for manufacturing continues to grow and strengthen through an established career pathway and that it remains relevant with changing needs. If successful it should result in the following:

- Manufacturing employers are able to obtain skilled employees to meet their needs
- > Students, job seekers, and workers have adequate training opportunities to obtain the training at a multitude of points along the career pathway to obtain unsubsidized self-sufficient employment within the manufacturing field
- > Training institutions are able to attract talented potential students to training programs to meet employer needs

To be successful, the pathway must facilitate industry's ability to recruit and hire qualified workers for the ever- evolving workplace that contributes to the region's economic strength and long-term prosperity while meeting the needs of region.

The evaluation plan will measure progress and identify components and activities that need to be addressed through a continuous improvement process through the initial collection of baseline data and annual evaluation and measurement of improvement or increasing participation in training and career development activities.

Definition of Success

- Meeting the need of the manufacturing industry in the High Country by providing/increasing the pipeline of a highly, qualified skilled workforce;
- Meeting the needs of students, jobseekers and workers by providing relevant training and employment as they progress along the pathways on and off-ramps; and
- Implement an evaluation process that will collect additional data for an on-going annual review. Three-year goals will be established for each data element collected using the baseline data.

Baseline Data

The data elements identified in the following charts have been collected as baseline data. The initial baseline data will be utilized to develop the basis of a plan for long-term evaluation. We expect that since the manufacturing sector is expected to grow approximately 4% from 2016 to 2024 that our annual goal will reflect an annual growth of at least 2% for each subsequent year.

In the High Country region the majority of WIOA participants have entered training related to the health care sector, with very few enrolled in other training programs. We expect the trend of health care related training will continue, however with new awareness of the manufacturing pathway anticipate that there may be a growth in this area.

Secondary Schools:

- # of students who achieved industry recognized credentials including CRC's
- # of students participating in manufacturing related work based learning
- # of employers providing work based learning opportunities

Community Colleges:

- # of students participating in manufacturing related work based learning
- # of employers providing work based learning opportunities
- # of students enrolled in manufacturing related training programs
- # of students who earned certificates, diplomas, and/or degrees relating to manufacturing

WDB/WIOA Programs:

- # of participants enrolled in manufacturing related training programs
- # of participants who earned certificates, diplomas, and/or degrees relating to manufacturing
- # of participants that completed training and entered employment related to the pathway
- # of participants participating in manufacturing related work based learning
- # of employers providing work based learning opportunities

Secondary Education	Baseline 16/17	Projected Goal 17/18	Projected Goal 18/19	Projected Goal 19/20
Number of students who achieved industry recognized credentials, including CRC's	3020	3080	3142	3205
Number of students participating in manufacturing related work based learning	21	23	25	27
Number of employers providing work based learning opportunities	23	25	27	29

Post Secondary Education	Baseline 16/17	Projected Goal 17/18	Projected Goal 18/19	Projected Goal 19/20
Number of students participating in manufacturing related work based learning	8	10	12	14
Number of employers providing work based learning opportunities	9	11	13	15
Number of students enrolled in manufacturing related training programs	327	334	341	348
Number of students who earned certificates, diplomas, and/or degrees relating to manufacturing	91	93	95	97

WIOA Participants	Baseline 16/17	Projected Goal 17/18	Projected Goal 18/19	Projected Goal 19/20
Number of participants enrolled in manufacturing related training programs	3	5	7	9
Number of participants who earned certificates, diplomas, and/or degrees relating to manufacturing	0	3	5	7
Number of participants that completed training and entered employment related to the pathway	0	3	5	7
Number of participants participating in manufacturing related work based learning	0	3	5	7
Number of employers providing work based learning opportunities	0	1	2	3

Soft Skills:

In response to employer needs related to applicants lacking soft skills, the High Country plans to address this concern through the use of the Working Smart: Soft Skills for Workplace Success curriculum (Exhibit 8A). Plans are underway to host a local training for staff in order to be certified to teach the soft skills curriculum and increase the number of completers in Working Smart across the High Country. In 2017, 47 individuals completed all modules of Working Smart and earned a certificate. With a goal to increase this by 15%, we hope to have an additional 54 individuals for 2018, and an additional 62 individuals for 2019.

Working Smart	2017	2018	2019
Completers	47	54	62

Mechanism for Updating the Pathway and Associated Strategies

Data collection will be conducted annually. Analysis of the data will be the responsibility of the career pathway evaluation work group and shared with the larger advisory group including industry representatives, educators, and regional NCWorks/WDB staff. Additional industries will be included in order to craft modifications necessary to achieve the success and goals of the pathway. Goals may be modified, up or down, as the process progresses through the annual evaluation periods. New sets of goals will be established at the end each three-year period.

Additionally, as the system for tracking employment for community college programs rates is developed, a random sampling of industries that have been identified as hiring graduates will be selected to evaluate the quality of the training received through the pathway. A survey will be conducted to collect specific details of the quality and skills of graduates received though the programs that are included in the project. Information regarding new registered apprenticeships and/or pre-apprenticeship programs will also be collected and recorded. Specific industries interest in developing apprenticeships will be evaluated and the appropriate connections made to facilitate the process.

Note: Please see Exhibit 8B for regional success stories in the area of manufacturing

"Working Smart"

Soft Skills for Workplace Success

This certificate recognizes that

Jane Jobseeker

has completed a full course of instruction, demonstrating all practical and academic competencies required for full certification in this soft skills for workplace success program.

Completed on February 7th, 2018 in association with Wilkes Community College.

Instructor, Wilkes Community College



Director, High Country WDB



"Working Smart" is a product of Charlotte Mecklenburg Workforce Development Partners, Certified by High Country Workforce Development Board, and taught by certified instructors.

"Working Smart: Soft Skills for Workplace Success" was developed by the Charlotte Mecklenburg Workforce Development Partners in a response to employer demands. It is designed to provide the work and life skills that enhance employee productivity.

"Working Smart: Soft Skills for Workplace Success" is a five module, 16 lesson soft skills curriculum taught over a minimum of 24 hours. Certified participants have successfully completed the following modules/lessons and are expected to show key competencies in all areas:

- Self-Awareness Skills
- > Self-Management Skills
- Work Ethics
- Communication Skills
- Problem Solving Skills

"Working Smart: Soft Skills for Workplace Success" is endorsed by the High Country Workforce Development Board, a partner of Charlotte Works.





SUCCESS STORY



GE Aviation, West Jefferson Rotating Parts Facility

NCWorks uses a team approach to recruiting, screening, and training.

When the GE Aviation facility in West Jefferson, North Carolina announced an expansion of more than \$150 million it wasn't the thousands of tons of concrete needed to build the building or the multi-million dollar equipment or even the deadlines to their network of global partners that kept them up at night.

They were concerned about finding and training the right workers for the 105 new jobs.

NCWorks brought together a team from the NCWorks Career Center, Wilkes Community College, the High Country Workforce Development Board, the Ashe County Chamber of Commerce, and Ashe County Economic Development to help.

"Every member of the team offered services to help recruit talent, develop trainings, and outreach to the community," said Adrian Tait, Director of the High Country Workforce Development Board. "By combining the strengths of this team we were able to deliver a complete package of services to connect GE Aviation with the talent they needed."

"NCWorks has done a lot of great things for us. They came on site with us, sat in strategy meetings, and helped us decide how we were going to go after the workforce and how to be most effective," describes Kory Wilcox, GE Aviation Human Resource Lead.

To meet GE Aviation's need, a multi-step application screening process was used beginning with a dedicated microsite on NCWorks.gov, an online application and skills assessment, preemployment training, and in-depth new hire training.

Then the High Country Workforce Development Board implemented a multi-faceted marketing strategy that included a direct mailing to workers dislocated from other area manufacturers, newspaper and web advertising, local television and radio spots, and social media outreach. In addition, area NCWorks Career Centers provided personal outreach to job seekers, one-on-one assistance with applications and resumes, and hosted online skill assessments.

Story continued on reverse.....





NCWorks career center

NCWorks customized training







SUCCESS STORY (page 2)



"The Career Center is very important to GE," said Wilcox. "They cut down on our administrative burden by streamlining the screening and application process."

The Human Resource Development program at Wilkes Community College held preparation workshops for candidates with tips on interviewing and insight into today's manufacturing careers. The NCWorks Customized Training program developed a comprehensive pre and post hire training series and leveraging funding from Golden Leaf a training center was set up providing the right environment to prepare new employees.

"We knew that manufacturers like GE Aviation needed a facility for hands-on CNC training," said Ginger Shaffer, Director of Workforce Development at Wilkes Community College. "This is a great example of how we can respond to the needs of employers."

Within a few months after the initial convening of GE Aviation and NCWorks, Wilkes Community College hosted a successful hiring event where almost 300 candidates were able to complete applications, speak with GE employees, and learn more about NCWorks.

GE Aviation has been pleased with the results. "I highly recommend the NCWorks system to other employers," stated Wilcox.



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SUCCESS STORY



Certain success for CertainTeed Corporation

When CertainTeed Corporation, a leading manufacturer of building materials (lap siding, vertical panels, soffit products, trim, and fascia) located in Roaring River, North Carolina, announced the expansion of its operation to include a new paint line, workforce development staff sought a partnership with them using On-the-Job Training (OJT) to assist with the company's projected creation of 37 new jobs by the end of 2012.

CertainTeed learned about the OJT program shortly after announcing the expansion in October 2011. Human Resources Manager, Gina McDowell, was interested in learning more about the types of assistance available to the company as she began recruiting and hiring new employees. After meeting with local WIA business services representative, Ricky Roten, a plan was developed to assist in the hiring process: hosting a job fair, applicant screening, assessment of existing employee skill levels, and placement of individuals in OJT.

The Wilkes JobLink Career Center hosted a CertainTeed job fair in December 2011, receiving and screening approximately 200 applications. One individual, Dennis Minton, had worked with Dove Air as a utility worker until the company closed in 2010. Dennis was contacted for an interview and offered a position at CertainTeed. With limited experience in manufacturing but good transferable skills, Dennis was a great candidate for the OJT program.

While Dennis was being trained in his new job, CertainTeed was reimbursed a percentage of his wage creating a "win-win" for both: Dennis was back at work, and CertainTeed was able to offset some of the investment cost of training him. Successfully trained in his new position, Dennis completed his OJT in May 2012 and remains employed at CertainTeed. According to HR Manager, Gina McDowell, he is doing very well. "Some of the best employees we have, came through the OJT program," Gina said recently. "In addition, the reimbursements through the program have really helped out our bottom line."

The Wilkes County plant currently employs approximately 110 people—nine of whom were hired through the OJT program during PY 2011.





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SUCCESS STORY



Landing a job (or employee) in a tight market

On-the-Job Training grants help both workers and employers. Add in community resources, and job creation happens.

by Sally Treadwell

It's incredibly hard to lose your job to the recession. It's even harder when you're sole breadwinner for two little girls.

So when Billy Lowery was laid off in 2009, he grabbed every temporary job he could find—even when that meant hours of commuting. Still, work was sporadic and Lowery's bank account was running dry.

Job-seekers can take heart from his experience. Because Lowery now has a full-time, permanent job again, and his story is a perfect example of how the local and larger community should work.

His own efforts were crucial. What made all the difference, though, was an On-the-Job Training (OJT) grant, a determined JobLink crew, a community college that opens doors, an employer willing to teach, and an innovative 'green' company.

Job creation at its finest, in other words.

"I'm very thankful," said Lowery, now working with Davis Godwin Associates in Spruce Pine, NC. "I couldn't have found a better situation."

Godwin is equally thankful. He had been preparing for a large project with Highland Craftsmen, a local company that has thoroughly modernized a century-old chestnut bark shingling technique. The resulting ultimate 'green' product, poplar bark shingles, is used nationwide, but greater production efficiency was important. Godwin had previously designed a system for kiln-drying shingles in half the time—"we never thought he could do it," said co-owner Chris McCurry, "but our new kilns work fabulously!"—and now needed to renovate three older kilns for the company.

"I'd have had to hire temporary unskilled labor," said Godwin, "so when John Greene asked if I'd be interested in an apprenticeship program, with most of Billy's salary paid by the program while he was training, I jumped at it."



Billy Lowery and Davis Godwin working on a kiln for drying poplar bark shingles, a 'green' building material produced in Spruce Pine. Lowery had been unemployed for two years before finding permanent work with Godwin through an Onthe-Job Training grant, administered by the High Country Workforce Development Board.

He hasn't been sorry. "Well done is better than well said, and Billy's quality of work is excellent."

Lowery was inexperienced but far from unskilled. He had previously worked installing gas piping, so he'd enrolled in electrical and welding classes at Mayland Community College. A decade or two of watching local furniture industry jobs get outsourced to China has taught Mayland to adapt to changing students and a changing job market.

"We take students wherever they are, and help them get wherever they want to go," said Dr. John Gossett, Vice President of Student Development.

That can entail being sensitive to the diverse scheduling, career development and tutoring needs of students returning to school. Mature students often need to refresh and update skills like math, so the college has beefed up its core classes while keeping an eye on job market demands—healthcare is

SUCCESS STORY (page 2)



huge, and so are remodeling industry skills like those learned by Lowery.

Meanwhile, JobLink case manager Carrie Stewart had been impressed by Lowery's determination to find work. She referred him to John Greene, JobLink's Business Services representative, as a candidate for On-the-Job Training (OJT). OJT is a learn-andearn program for long-term unemployed workers and it's funded through a grant to the High Country Workforce Development Board by the American Recovery and Reinvestment Act of 2009.

Training is a tremendously expensive proposition for most employers, who are often reluctant to take on new workers. The OJT grant subsidizes this expense by as much as 90 percent so that companies can hire now instead of waiting, and Greene, once he knows what work interests a program candidate, pitches likely employers.

There are strict rules.

"I had to tell them what I would teach Billy and stick to it. John checked in on us frequently and there was quite a bit of paperwork and follow-up," said Godwin, who was impressed by the dedication of everyone involved in Lowery's new career.

Lowery is happy in a job he clearly loves and is good at. "I'm learning a lot of new trades," he said, reeling off information about hydronic systems and the new kilns.

And, according to Greene, there's still OJT money out there, just waiting for strong candidates.

Interested in OJT grants?

On-the Job Training grants reimburse employers for 50-90 percent of wages for eligible workers during up to six months of training. The wage and benefit package must be the same as that of other employees in the same position, and reimbursement is capped at 90 percent of the state average wage (\$18.95 in NC). Training should be expected to lead to a permanent job.

Eligible workers are those who have been unemployed for more than 19 weeks because of plant closures, natural disasters or general economic conditions in the community. The program is "learn and earn"; participants should want, and expect, to learn marketable skills.

For more information contact John Greene, JobLink's Business Services representative, at john.l.greene@ averycountync.gov, (828) 737-5419; or your local JobLink Career Center.



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NCWorks career pathways

Manufacturing NCWorks Certified Career Pathway February 2018

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NCWorks career pathways

Manufacturing NCWorks Certified Career Pathway February 2018

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