



**Career and Technical Education
Career Pathways**

Presentation to
State Board of Community Colleges
November 17, 2016



Agenda

- Perkins team
- Perkins activities
- Review of Career Pathways
- Future activities
- Discussion



The Perkins Team

- Ashley Bowling – Admin Support
- Chris Droessler – CTE Coordinator
- Julia Hamilton- CTE Coordinator
- Tony Reggi - CTE Coordinator
- Bob Witchger – CTE Director



Perkins Mission

- Enhance Career and Technical Education (CTE) Programs of Study
- Support CTE at our 58 Colleges
- Provide the *Spice* and *Spark* through funding
- Emphasis
 - Strengthening CTE curriculum programs
 - Infusing technology
 - Fund faculty professional development
 - Encourage teaching All Aspects of Industry
 - Work-based learning



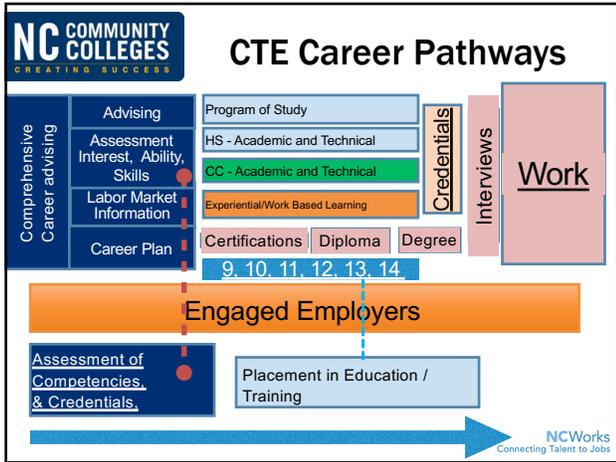
Perkins Support of NCCCS Strategic Plan

- Employer engagement
- Career awareness
- Work-based learning
- Career Pathways that connect students to jobs and careers



Grants to North Carolina Community Colleges

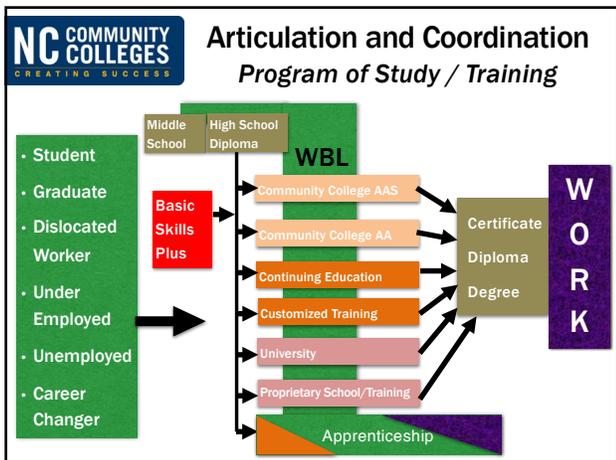
- Basic Grant to Colleges – 58 colleges
 - \$10 Million to support college CTE work
- Leadership Grants – To promote innovation
 - On-line staff development – Center for Occupational Research and Development (CORD)
 - Curriculum enhancement – Accounting and Finance Alignment Project, Competence-Based Education Project, ADN to BSN (Winston-Salem State) Articulation Project, Automotive – Supplemental Interactive Curriculum
 - Career Pathways



NC COMMUNITY COLLEGES
CREATING SUCCESS

Sample CTE Program of Study with CCP Pathway

Grade	HS Graduation Requirements				Electives (Articulation)		Credentials	
9	Math	English	Social Studies	Science	CTE Elective W/Publis	CTE Elective Excel and Access	Certification	
10	Math	English	Social Studies	Science	CTE Elective W/Publis	CTE Elective Excel and Access	Certification	
11	Math	English	Social Studies	Science	CTE Elective W/Publis	CTE Elective ADA-111		
12	Math	English	Physical Science	World Language	CCP	CCP	Certificate	13cr Jobs \$
13	NOS - 110 DET - 110	NET - 225 NET - 226	ENG - 111 HUM - 115	NET - 125 NET - 126	SEC - 110		DIPLOMA	27cr Jobs \$\$
14	ENG - 112 ECO - 251	MAT - 143 ECO - 251	DIS - 115 DET - 111	NOS-130 NOS-230	DBA - 110		AAS	27cr Jobs \$\$\$





Career Pathways

- Asheville-Buncombe Technical Community College
- Fayetteville Technical Community College
- Catawba Valley Community College



Learning to Earn!
Asheville-Buncombe Technical Community College
A-B Tech



Our Presenters:

Name	Title	E-Mail	Phone
Gene Loflin	Associate Vice President, Instructional Services	williameloflin@abtech.edu	(828) 398-7240
Vernon Daugherty	Dean, Engineering and Applied Technology	vernondaugherty@abtech.edu	(828) 398-7220
Debbie Cromwell	Workplace Learning Coordinator	debbiecromwell@abtech.edu	(828) 398-7603



Employer Engagement Raising Awareness of Manufacturing Possibilities (RAMP)

Launch Event
Jacob Holm Industries
October 1, 2015

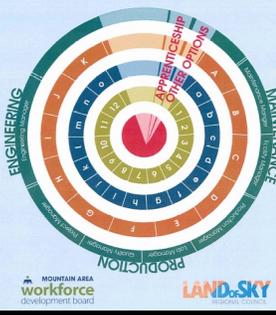



NC Works Certified Career Pathways Advanced Manufacturing Company Participation

- GF Linamar
- AVL Technologies
- Borg Warner Turbo
- Continental Automotive Systems
- Current by GE
- GE Aviation
- Linamar
- Jacob Holm Industries
- Kearfott Navigation Systems
- Sigma Plastics/New Excelsior Packaging
- Raumedic
- Nypro Medical
- Baldor Electric
- Smart Products
- Demmel AG
- Gaia Herb
- White Labs
- L-3
- Avadin Technologies



WHEEL OF OPPORTUNITY



POPULATION

- High School Students
- High School Graduates
- HSE Students
- Basic Skills Students
- Out-of-School Youth
- First-Time College Students
- 4-Year College Students
- College Graduates
- Displaced Workers
- Welfare
- Part-timers with Spouses
- Incumbent Workers
- Seasonal Workers

ENTRY

- Mechanic Operator
- Assembler
- Painter
- Tool Assistant
- Inspector
- Mechanical Assembler
- Quality Inspector
- Welder Assistant
- Solderer
- Production Assistant
- Quality Assistant
- Shipping/Receiving Clerk

• INDIVIDUALS BY 4-YEAR DEGREE
• INDIVIDUALS WITH RELEVANT WORK EXPERIENCE
• INDIVIDUALS WITH RELATED WORK EXPERIENCE
• INDIVIDUALS WITH RELATED HSE CERTIFICATION

INTERMEDIATE

- Mechanical Tech
- Electronics Tech
- Electrical Tech
- Automotive Tech
- Mechanical Tech
- Lab Tech
- Quality Tech
- Maintenance Tech
- Tooling
- Welder
- Engineering Tech
- Instrumentation Tech
- Chemical Tech
- Printer

• INDIVIDUALS WITH REQUIRED WORK EXPERIENCE
• COMPLETERS OF SHORT-TERM TRAINING
• INDIVIDUALS W/ 2-YEAR DEGREE

ADVANCED

- Maintenance Supervisor
- Facility Supervisor
- Inspector
- Quality Supervisor
- Production Supervisor
- Lab Supervisor
- CNC Machinist
- CNC Programmer
- Engineer (all levels)
- Plant Lead
- Designer

• INDIVIDUALS BY 4-YEAR DEGREE
• INDIVIDUALS BY 2-YEAR DEGREE
• COMPLETERS OF SHORT-TERM TRAINING
• INDIVIDUALS WITH RELATED WORK EXPERIENCE

MOUNTAIN AREA
workforce
development board

LAND+SKY





Marissa Dowers

- Mechanical Engineering student, holds a certificate in CNC Programming and Architectural Drafting
- 1st time recipient of scholarship provided by Advanced SuperAbrasives (ASI) in Mars Hill
- Internship at ASI summer 2016 where she proved to be a superstar!
- Offered fulltime work at ASI as an Engineering Technician Rover while completing her studies



Joel Luczak

- Recent graduate earning an Associates Degree in Computer Integrated Machining
- Interned with GE Aviation for six months, internship subsequently extended three times in three month intervals
- Upon graduation, Joel was offered a fulltime position as a Machinist in the Rotating Parts Division



Evan Capps

- Recent graduate earning an Associates in Industrial Systems Technology, Certificate in Industrial Automation, Certificate in CNC Machining
- Accepted as an Apprentice (non-registered) with Atlas Precision
- Began training and working as a Design Engineer on projects from day one
- Upon graduation was offered a fulltime position as an Engineering Apprentice



Thank You!

<https://mountain.com/food/in-photos-a-1-inch-baking-and-pastry-arts-graduates-present-senior-capstone-projects/>



COLLISIONU
FTCC POST COLLISION REMANUFACTURING...

**Reshaping the Collision Repair Industry
One Student at a Time**

FTCC FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE

Grand Opening



ETCC FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE

How Do You Engage An Industry?

- Understand the industry need
- Work with industry to create the solution
- Keep industry engaged before, during and after
- Leverage the industry

ETCC FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE

Understanding an Industry Need

- Industry has to tell you how the need should be met
- Industry has to tell you what an employable graduate looks like
 - Credentials
 - Don't forget soft skills
- You are not just providing an education, you are providing **CAREER TRAINING**

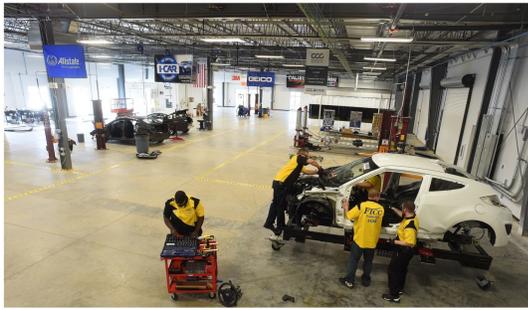
ETCC FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE

Working with Industry to Create Solutions

- Bringing industry to the table
 - “If you build it...” they probably won’t come
- Be a business partner - become an education distribution center
- Speak the industry language
 - Credibility
- Look like the businesses you serve
- Be responsive – don’t delay!



CollisionU Facility



CollisionU Facility



CollisionU Facility



Keeping Industry Engaged

- Go where they are
 - Conferences
- Give them a reason to come to you
 - Draft Days
 - Guest Speakers
- Find out what other needs you can meet for them
 - Corporate Training

Draft Days



Draft Days



ETCC FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE

Draft Days



ETCC FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE

Leveraging an Industry

- Resources
- Job Placement & Experience
 - Internships & Apprenticeships
- Tools/Equipment
 - Grant opportunities
- Keeping curriculum current

ETCC FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE



Catawba and Alexander Advanced Manufacturing Pathways Project



Starting the Process

Secondary and Postsecondary CTE Career Pathways joined efforts with the Department of Commerce in order to address regional economic and workforce needs while incorporating various educational and workforce strategies to streamline the pipeline to work.

*NCWorks Career Pathway Update



Advanced Manufacturing Pathway Partners



Aptar
Continental
GKN Driveline
Technibilt
Tenowo
Sarstedt
ZF Chassis

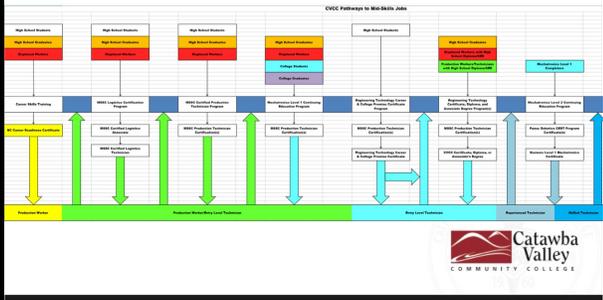
Alexander County Schools
Catawba County Schools
Hickory Public Schools
Newton-Conover City Schools
Western Piedmont Workforce
Development Board
Catawba Valley Community
College



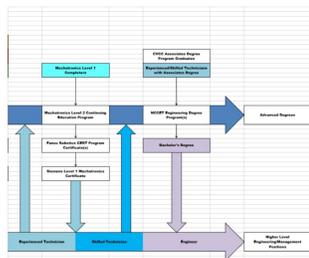
The Mechatronics Pathway includes entry and exit points in high school, continuing education, and curriculum. Industry recognized credentials are available for continuing education and curriculum.



CVCC Pathways to Mid-Skills Jobs



CVCC Pathways to Mid-Skills Jobs



Employer Engagement



Employer Engagement



12-18 apprentices that will provide seamless transitions from high school to community college.
 31 apprentices to date
 2 apprentices graduated August 2016
 10-20 pre-apprentices/summer

Fall 2016/Spring 2017

October/November recruitment process with high school juniors and seniors
 December/January Open Houses will start at partner companies
 March/April Orientation Week
 June Pre-Apprenticeship (6 weeks)
 August Signing Ceremony and beginning of apprenticeship







What does the **FUTURE** of apprenticeship look like at CVCC?

Along with its partners, CVCC has readied the area to grow and sustain apprenticeships for post-secondary students in CTE programs of study.

The Catawba Valley Community College Advancing Post-Secondary Apprenticeship Project will concentrate on developing a statewide model for advancing and supporting apprenticeships for post-secondary students.



What does the **FUTURE** of apprenticeship look like at CVCC?

Develop a model post-secondary apprenticeship program that can be replicated statewide

↓

Pilot the model by establishing individual Apprenticeships for post-secondary students in two academic schools at CVCC

↓

Deliver a statewide training session introducing the model for advancing and sustaining apprenticeships to post-secondary students







Perkins 2017-2018

- Emphasize work-based learning
- Encourage faculty professional development
- Work with stakeholders to improve pathway elements:
 - Employer engagement
 - Career awareness
 - Programs of study
 - Work-based learning
- Build on promising practices



Career and Technical Education Career Pathways

Presentation to
State Board of Community Colleges
November 17, 2016

www.NCperkins.org
