

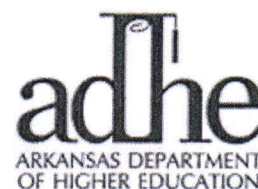
Arkansas Tech University-Ozark Campus

Act 1131 of 2015 Regional Workforce Continuation Grant Application

05/31/2018

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Act 1131 of 2015
Regional Workforce Continuation Grant

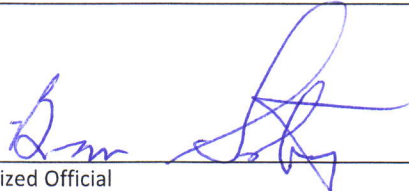
APPLICATION COVER SHEET

DUE JUNE 1, 2018

To:	Arkansas Department of Higher Education	
Requesting Institution:	Arkansas Tech University-Ozark	
Title of Project:	Automation Continuation in Robotics and Machining	
Project Partners:	1. Arkansas Tech University 2. Arkansas Tech Career Center 3. Bridgestone America's Tube Business 4. Clarksville School District 5. American Axle and Manufacturing (formerly Cloyes Gear & Products, Inc.) 6. Olin Blue Cube Oper., LLC 7. Paris School District 8. Tyson Foods, Inc. 9. Western Arkansas Workforce Development Region 10. West-Central Arkansas Workforce Development Region	
Requested Budget:	\$1,022,360.26	
Date Submitted:	05/31/2018	
Applicant Contact:	Bruce Sikes, Chancellor	
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Authorized Signatures for Institution

Arkansas Tech University-Ozark Campus
Lead Institution


Authorized Official

Act 1131 of 2015

Regional Workforce Continuation Grant Application

*Please complete each section of this application and submit to the Arkansas Department of Higher Education by **June 1, 2018**. Applications should be emailed to ADHE.Workforce.Grant@adhe.edu. Please note that only projects that were awarded an implementation grant are eligible to apply for a continuation grant.*

SECTION 1 – PROGRAM NEED

20 Points

Proposals will include a thorough description of the labor needs, as determined by the Local Workforce Development Board, and specifically identify the skills gap employers face in the selected region and will continue to face in the future. Entities seeking grant funds must outline the proposed program and/or equipment needed and how continuation of the program and/or acquisition of equipment will address those labor needs.

Essential Components:

- Regional data demonstrating the need for action - provide empirical data that illustrates needs of the local workforce, with a particular emphasis on anticipated or future needs.
- Clear linkages between grant activities and local needs- clearly illustrate how the proposed grant project is directly linked to addressing the workforce needs and deficits of the region. Successful applications will provide a thorough description of the region's high-demand and high-skill industrial occupations, and identify how the proposed activity will address job candidate deficits in those areas. **Applicants must also submit letters of support from at least two area employers for the proposal, citing need and outlining benefits for local industry.**
- Alignment with Arkansas economic and workforce goals- describe how the proposed project will increase overall higher education attainment in the region and provide clear linkages between a postsecondary credential and the needs of employers.

Keep the following rubric in mind when completing this section:

	Exemplary	Superior	Adequate	Needs Improvement
Program Need (20 Pts)	Significantly addresses a top 3 workforce need in the region. (18–20 Pts)	Addresses in a more limited way a top 3 workforce need in the region. (15–17 Pts)	Addresses in a limited way a less critical workforce need in the region. (11–14 Pts)	Identified labor need is too narrow or not in a critical area. (0–10 Pts)

Please enter your answer in the box provided below. Feel free to include any necessary charts, graphs or tables.

Introduction

Clear Linkages

Arkansas Tech University (ATU), Arkansas Tech University - Ozark Campus (ATU-O), Arkansas Tech Career Center (ATCC) in Russellville including satellite locations at Paris and Clarksville, along with industry partners across the Western and West-Central Workforce Development Regions proposes this Regional Workforce Continuation Grant application to further develop, enhance, and equip Industrial Automation Technology pathways. These pathways were the result of research, planning, and implementation assisted with the Phase I and Phase II grant awards. This proposal will support the continuation of the Arkansas Tech University Career Training Alliance linking secondary and post-secondary populations to the training needs of our respective Local Workforce Development Regions of Western and West-Central Arkansas. This proposal will also serve to provide opportunities to enhance current and new automation pathways, including machining / robotics / CAD, while meeting the Southern Region Education Board's call to action. It is our intention to continue to serve secondary and postsecondary students to include our (ATCC) partners currently serving 19 public schools enhancing access to industrial automation training. This proposal builds upon secondary training, industry credentials, and post-secondary degree attainment through Arkansas Tech University-Ozark Campus and Arkansas Tech University at Russellville.

As shown from ATU-Ozark survey data of partner industries throughout all grant application phases, skill sets in industrial automation technology are of current and anticipated need in the regions we serve. We also know through workforce development regional data, manufacturing and production jobs continue to be an economic staple and engine for our area. Automated equipment and skilled workers are a continued need to inspect and maintain this equipment of critical importance to the viability of these industries. We have found through collected empirical data shown in this application that automation technology is a top 3 need at partner industry facilities.

The Ozark Campus serves a number of industries reliant on these identified skill sets. The access at the secondary level has been limited due to the equipment utilized in the automation industry. However, with the addition of our new Automation Technology programs and labs in both the Russellville and Paris ATCC locations, The Arkansas Tech University Career Training Alliance has initiated a pipeline of secondary students with access to an industry requested program. Arkansas Tech University has in place the partnerships to continue and expand these automation technology offerings to include machining programming /robotics / CAD, which if awarded will help fulfill additional industry needs our regions.

ATU will enhance linkages in the Industrial Automation Technology career pathways by providing access to secondary and post-secondary students. These accessible points enable ATU to serve students in both the Western and West-Central Workforce Development Region utilizing: ATU Ozark, (ATCC) in Russellville, and its satellite locations in Clarksville and Paris. Students may enter into this program through our secondary tech center earning

concurrent credit building upon stackable degrees and industry credentials. These stackable offerings lead to an Associate of Applied Science Degree, as well as a new Bachelor of Applied Science degree added since the last grant phase. The University has established a linear stackable degree path beginning with courses leading to Certificates of Proficiency through a Technical Certificate in Industrial Control Systems through an Associate of Applied Science degree in Automation Technology and through a Bachelor of Applied Science degree. This proposal builds upon the current and viable program of study in Automation, enhancing the University's ability to serve industry with certifications and stackable degrees.

The Continuation Grant will provide additional equipment and instructional support to continue closing the skills gap as identified by our regional data in machining, robotics, and CAD. In Phase I and Phase II of the Regional Workforce Grant, the Ozark Campus identified and obtained equipment to begin addressing entry level automation needs in the electronics/ industrial controls skilled areas. There is a continued need in our WIOA regions of Western and West Central to progress and provide additional automation training to support manufacturing particularly the machinist trade. Machining skill sets include: manual machining operations, blueprint reading, automated/robotic machining operations, drafting and computer aided drafting.

To respond to current and future needs, ATU - Ozark Campus developed multiple pathways in manufacturing and automation. This restructure of pathways began with the Planning Phase I through initial Implementation Phase II. The Equipment requested in Phase III is a continuation of the automation pathway, which was identified as a regional need in Phase I and will provide appropriate application training enhancing credit and noncredit access specific to our region's manufacturing job opportunities.

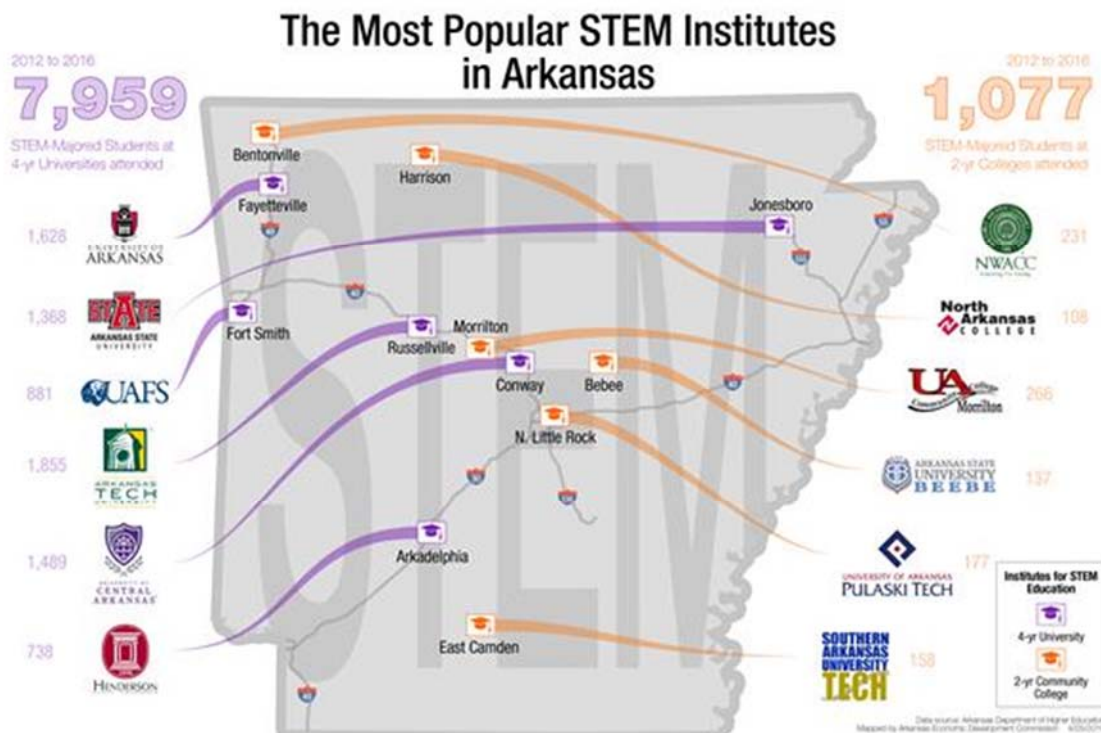
The Ozark Campus of Arkansas Tech University is located in the eastern portion of the Western Arkansas Workforce Development Region. Arkansas Tech Career Center (ATCC) is located in the northeast portion of the West-Central Workforce Development Region and is housed under the ATU-Ozark umbrella. In combination, these entities provide career training leading to certificates of proficiency, technical certificates, and Associate of Applied Science degrees. Arkansas Tech University in Russellville completes the educational continuum through its offerings of a bachelor's and master's level degree.

The Arkansas Tech University Career Training Alliance seeks to enhance and build career-training paths in service to the communities of the Arkansas Tech University industry and economic region. With all campuses located on Interstate 40, Arkansas Tech University in Russellville, Arkansas Tech University-Ozark Campus and Arkansas Tech Career Center (ATCC) enable both Workforce Development Regions multiple access points to educational training. As an educational entity, Arkansas Tech University serves its mission through its variety of bachelor's, master's, and doctoral programs. The Ozark Campus currently serves its mission through its viable and industry recognized two-year programs. Combining the missions and programs of study, Arkansas Tech University and the Ozark Campus identify as a regional provider of education to the Arkansas River Valley region and beyond. ATCC as a secondary tech center partner provides access to Arkansas Tech University serving 19 public schools in both the Western and West-Central Workforce Development Regions. With its satellite entities in Danville, Clarksville, and Paris, ATCC enables our River Valley secondary partners access to

relevant and specific career training supporting the economic and employment needs of both regions.

Labor Needs Overview

In the Western and West-Central Regions, manufacturing continues to be an economic engine with a growing need for automated skill sets. To support our industry partners and fill the need for skilled technicians, the alliance will build upon the offerings currently in place in Automation Technology. Maintaining sustainability and advancement of future processes, the manufacturing sector requires a diverse set of STEM skillsets. Arkansas Tech University including its Ozark Campus as reported by the Arkansas Economic Development Commission, currently produces the most STEM students in the state of Arkansas.



(Arkansas Department of Higher Education, mapped by Arkansas Economic Development Commission, 2018).

The continuation phase proposal of the Automation Technology program to include machining enhances ATU's and Arkansas's ability to attract Arkansas secondary and post-secondary students to STEM credentials. This program enhancement will impact economic opportunity for our state providing the quantifiable and quantifiable workforce needed to support current and future manufacturing.

Phase I and Phase II provided better access to training in the River Valley implementing new programs and automation labs. The anticipated growth in automation supporting additional specific skillsets of industry include machining. Access to specialized training requires appropriate equipment to maintain valuable applications.

Nationally, the skills gap in manufacturing continues to widen and innovative approaches to develop industry specific training are needed. The following data on the skills gap at a national level was obtained by The Manufacturing Institute:

- 84% of executives agree there is a talent shortage in manufacturing
- It takes 90 plus days to recruit highly skilled workers as opposed to 48 days in other areas
- 80% of manufacturing companies are willing to pay more than the market rates in workforce areas reeling under the talent crisis.
- Six out of ten open skilled production positions are unfilled due to the talent shortage.
- 3.4 million Manufacturing jobs are likely to be needed over the next decade. Of these, two million are expected to go unfilled due to the skills gap.
- Every job in manufacturing creates another 2.5 jobs in local goods and services.
- 700k manufacturing jobs expected over the next decade due to economic expansion.

The national data mirrors what we see in the Western and West-Central Workforce Development Regions. Today's 21st century manufacturing facilities have ushered a new wave of manufacturing with an array of technologies from advanced robotics to fully integrated production systems. With this new environment on the production floor, manufacturers are moving towards a new level of interconnected and intelligent manufacturing system which incorporates the latest advances in sensors, robotics, big data, controllers, and machine learning. This allows every aspect of the plant to be constantly accessible, monitored, controlled, designed, and adapted for real-time adjustments. The higher reliance on automation in these smart factories is going to make manufacturing more efficient and productive. (Manufacturing Institute, 2015).

Industries in the Western and West Central Arkansas Workforce Development Regions, in order to keep pace with the future in new automated technologies require highly skilled workers to manage the increasing complexity. Today's modern manufacturing workers need a variety of skills: Strong problem-solving skills can equate to the ability to autonomously adjust robots and production systems real-time. Math skills can translate into applied competencies in measurement and spatial reasoning. Technical skills have practical application in areas such as metallurgy, and technical system operations such as fluid power electrical controls. Understanding algorithms and advanced computing can translate into the ability to develop advanced technologies such as 3D-modeling and advanced robotics. Overall, as product development and manufacturing systems become more interwoven and cycle times shorten, workers need to have higher levels of STEM and analytical skills in order to influence design changes as well as production efficiency. (Manufacturing Institute, 2015).

The sophistication of today's and tomorrow's factories place greater onus on new and existing workers to increase their skillset, and to come to the table with the STEM skills necessary to operate in an advanced manufacturing facility. "And with the skills gap becoming an increasingly troublesome trend, manufacturers must act now in order to reap the benefits that smart manufacturing, alongside a smart skillset, can provide" (Manufacturing Institute, 2015). The Manufacturing Institute also shows results of a survey centered on skills in which

Manufacturing employees are most deficient. The results show that 70% of manufacturing employees are deficient in technology/computer skills, 69% deficient in problem solving skills, 67% deficient in basic technical training, and 60% deficient in math skills (Manufacturing Institute, 2015).

As noted by a national survey of The Manpower Group, 3 of the top 10 most difficult jobs to fill are manufacturing related (Manpower Group, 2015). Our industry alliance partners have also indicated this shortage at the local level. Through support letters, answers to ATU Ozark designed surveys and personal visits, these industry partners have indicated that entry-level employees are difficult to recruit with the specialized skillsets required in today's manufacturing environment.

Regional Data from Workforce Development Regions

According to the most recent data provided by Discover Arkansas and the Arkansas Department of Workforce Services, production occupations in the Western Arkansas Workforce development region are reported to have 490 total annual openings over the short term, ranking fourth in the region. Over the long term through year 2024, production occupations will have 414 annual openings in the Western region. Also, food and paper manufacturing both rank in the top ten growth industries as ranked by net growth over the short term (Discoverarkansas.net, 2018).

In the West-Central Workforce Development Region, production occupations are estimated to have 318 annual openings over the long term and 328 annual openings over the short term (Discoverarkansas.net, 2018).

Many occupations across various sectors involve knowing how to utilize equipment that has automated technology within it and requires a higher-level skill set than equipment of the past. Arkansas Department of Workforce Services data from Discover Arkansas notes several occupations across both Western and West-Central Arkansas regions that will utilize automation technology. This data also indicates a growth mode in automation skillsets over the long term as far as year 2022. Occupations included in ADWS data: production occupations, installation/maintenance and repair occupations, food processing occupations, industrial machinery mechanics, inspectors/testers/sorters, plant and system operators, electricians, computer occupations, packaging/filling machine operators, machinists, and electrical/electronic equipment installers and mechanics (Discoverarkansas.net, 2016).

The following data from DiscoverArkansas.net obtained prior to the Implementation grant application also supports the need for training and education in automation technology. In the Western Workforce Development Region, the following occupations are shown through long term projections by year 2022 as growing: Installation/Maintenance/Repair at 166 annual openings, Food processing workers at 83 annual openings, Industrial Machinery Mechanics 24 annual openings, Computer occupations 23 annual openings, Machinists 22 annual openings, Inspectors/testers/sorters with 21 annual openings, Packaging/filling machine operators 14 annual openings, Plant and system operators at 13 annual openings (Discoverarkansas.net, 2016).

In the West-Central Workforce Region, the following data collected from DiscoverArkansas.net prior to the Implementation grant phase is also relevant to this Continuation grant phase includes:

Production occupations at 357 annual openings, Installation/Maintenance/Repair occupations at 165 annual openings, Food processing workers at 96 annual openings, Industrial Machinery Mechanics at 23 annual openings, Inspectors/testers/sorters at 23 annual openings, Plant and system operators at 17 annual openings, Electricians at 17 annual openings, Computer occupations at 17 annual openings, Packaging/Filling Machine Operators at 15 annual openings, Machinists at 8 annual openings. Electrical/Electronic Equipment Installers and mechanics at 6 annual openings (Discoverarkansas.net, 2016).

The data shows that manufacturing and production remain strong in Western and West Central Arkansas and will continue to be a top job growth sector for both areas. As these industries rely more and more on computer-automated systems in their production lines, operators with advanced training to both maintain and control automated pieces of manufacturing equipment will be essential to keeping these companies competitive. These industries will draw from a larger pool of qualified workers that helps Arkansas retain industry and attract new growth.

Survey Data

Since receiving the awarded Implementation grant, Arkansas Tech University-Ozark Campus has conducted additional surveys of regional industry to show the need for furthering automation programs in the Western and West-Central Arkansas Workforce Development Regions.

The first of these surveys was conducted for Johnson county area industries in February of 2017, where we were asked by the Johnson County Regional Chamber of Commerce to assess the skill gaps and needs in their service area. The following companies responded to the survey: Bean Tool & Die, Munro & Company, Inc., Baldor Electric Company (now ABB), APEX Automation, Inc., Sentinel Manufacturing, Johnson County Regional Medical Center, Mid-South Roller, Tyson Foods – Clarksville, Bright Harvest Sweet Potato Company, Custom Automated Manufacturing, Inc., Hanesbrands Inc., Clarksville Light & Water, Whitkanack Machine Shop, Inc., Wade Black & Associates, Inc., and three additional companies who remained anonymous.

Within this Johnson County Industry Survey, the following data was collected:

1) On a scale of 1 to 10, please indicate the difficulty of finding workers in the Johnson County area with the right technical skill sets to meet your company's needs ("1" being least difficult and "10" most difficult)?

Responses: 20% gave a rating of "10", 25% gave a rating of "9", 25% gave a rating of "8", 15% gave a rating of "7", 5% gave a rating of "6", 5% gave a rating of "5", 0% gave a rating of "4", 0% gave a rating of "3", 5% gave a rating of "2", 0% gave a rating of "1".

The next question refers to soft skills instead of technical skills, but since this is a growing need for employers and also implemented into curriculum, we included it on the survey.

2) On a scale of 1 to 10, please indicate the difficulty of finding workers in the Johnson county area with the right soft skill sets to meet your company's needs ("1" being least difficult and "10" being most difficult)?

Responses: 5% gave a rating of "10", 5% gave a rating of "9", 20% gave a rating of "8", 30% gave a rating of "7", 0% gave a rating of "6", 15% gave a rating of "5", 10% gave a rating of "4", 5% gave a rating of "3", 10% gave a rating of "2", 0% gave a rating of "1".
















3) For those who have machine operator positions at their facility, do new workers start out as a machine operator or do they start in a different entry-level role before moving to machine operator?

Responses: 30% responded that new workers would start out as a machine operator, 35% responded that new workers would start out in a different position before moving to machine operator, and 35% responded as not applicable to their industry.

4) For the following technical skills, which ones if implemented at the high school level would be most important for your future workforce needs?

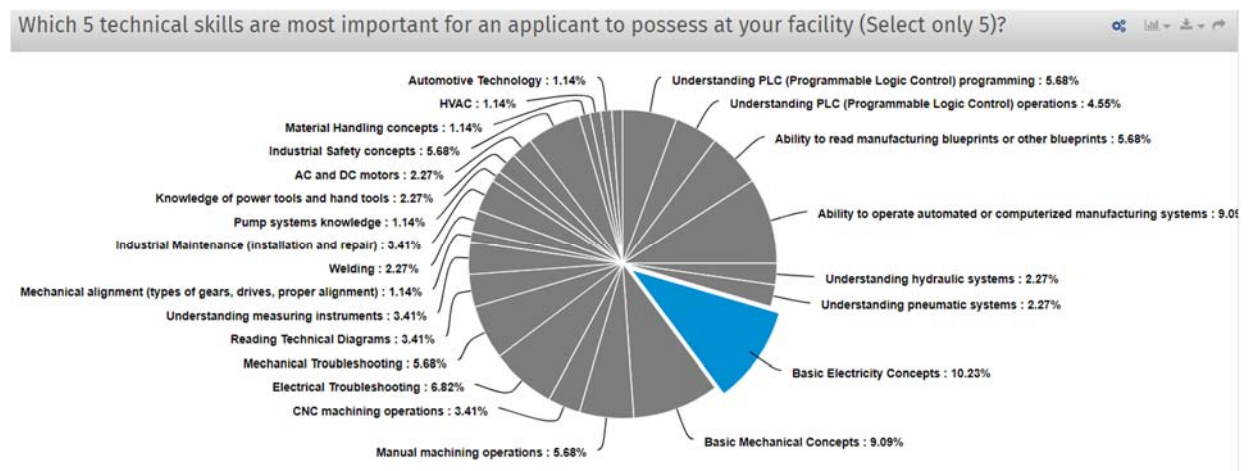
Responses:

Question	Count	Score	Not Important	Somewhat Important	Very Important	Critically Important
Understanding PLC (Programmable Logic Control) programming	18	2.67				
Understanding PLC (Programmable Logic Control) operations	17	2.53				
Ability to read manufacturing blueprints or other blueprints	18	3.39				
Ability to operate automated or computerized manufacturing systems	18	3.06				
Understanding hydraulic systems	18	2.22				
Understanding pneumatic systems	18	2.33				

Basic Electricity concepts	18	3.06	
Basic mechanical concepts	18	3.39	
Manual machining operations	18	3.11	
CNC machining operations	18	2.22	
Electrical troubleshooting	18	2.72	
Mechanical Troubleshooting	18	3	
Reading Technical Diagrams	18	2.89	
Understanding measuring instruments	18	3.44	
Mechanical alignment (types of drives, gears, proper alignment)	18	2.61	
Welding	18	2.44	
Industrial Maintenance (Installation and repair)	18	3.11	
Pump systems knowledge	18	2.22	
Bearings and Lubrication	18	2.72	
Knowledge of power tools and hand tools	18	3.17	
Basic Rigging	18	2	

AC and DC Motors	18	2.72	<div></div>
Industrial Safety Concepts	18	4	<div></div>
Material Handling Concepts	17	3.06	<div></div>
HVAC	15	1.93	<div></div>
Automotive Technology	15	1.6	<div></div>
Diesel Technology	15	1.33	<div></div>
Tool and Die	17	1.88	<div></div>

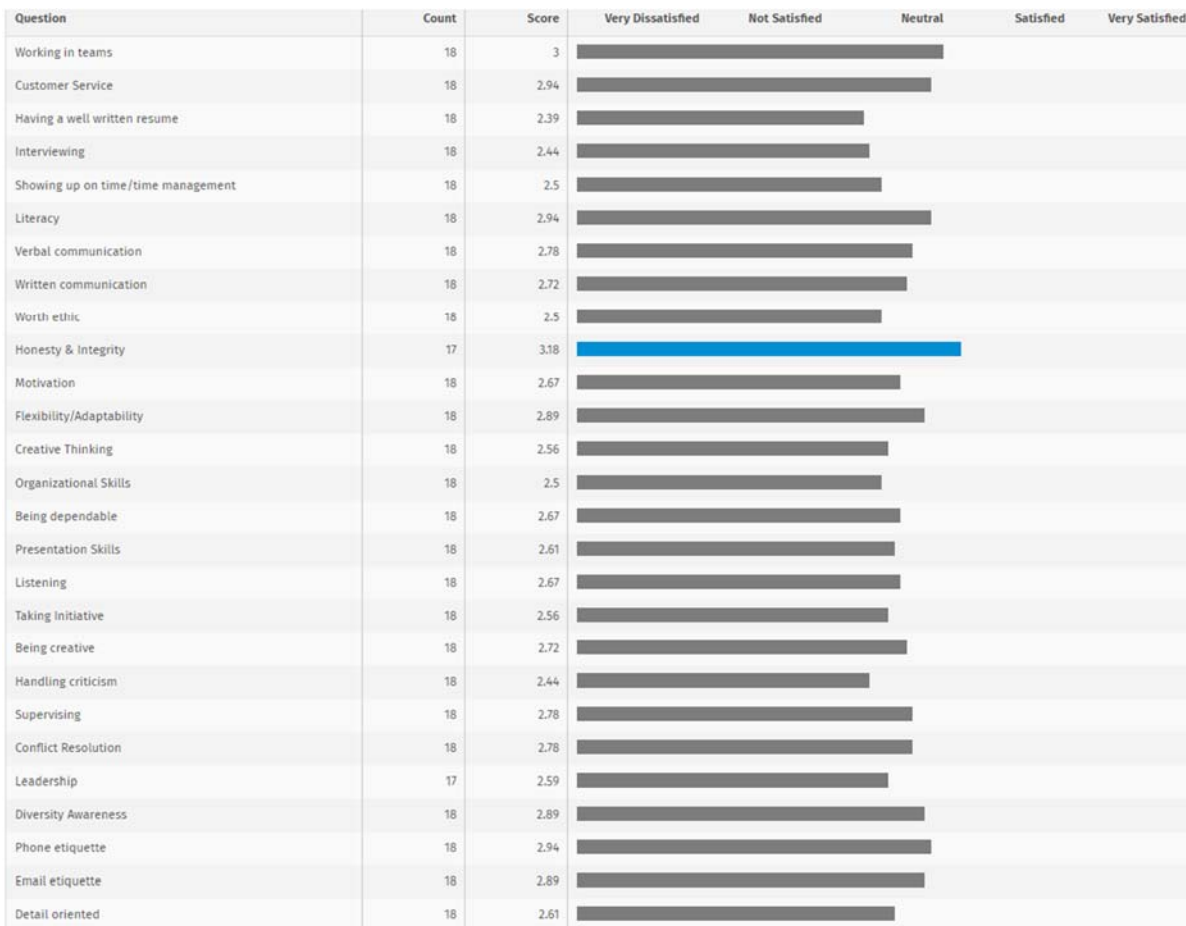
5) Which 5 technical skills are most important for an applicant to possess at your facility (select only 5)?



The response to this question shows the ability to operate automated or computerized manufacturing equipment and the second most common answer, preceded only by Basic Electricity Concepts which is taught in our Automation Technology programs

Question	Count	Score	Very Dissatisfied	Not satisfied	Neutral	Satisfied	Very satisfied
Microsoft applications (Word, Excel, Powerpoint, Access)	18	3	<div></div>				
Basic computer knowledge	17	3.18	<div></div>				
Advanced computer knowledge	15	2.4	<div></div>				
Use mathematical reasoning	18	2.67	<div></div>				
Problem solving	18	2.44	<div></div>				
Adapting to new technology	18	2.78	<div></div>				
Knowledge of terminology specific to my industry	18	2.56	<div></div>				
Data entry and data management	17	2.76	<div></div>				

7) Please rank the following soft skills and others in terms of how satisfied you are with entry level workers:



8) Please list any certifications or credentials that would be beneficial to your company if an applicant already possessed them before being hired:

Answers included all of the following: High pressure boiler license; Basic electrical/electronic; PLC knowledge; Mechanical Aptitude; Apprenticeship Certificate; OSHA 10; Forklift; CPR; Hazmat; Welding Certification; Manual Lathe Experience; Medical Terminology; Maintenance; Customer Service.

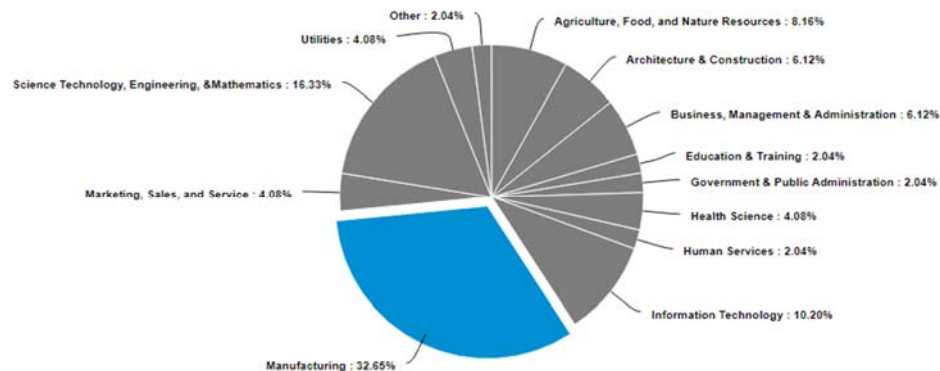
9) What positions do you have the most trouble filling?

Answers included all of the following: Technical positions; Manual Machinist; CNC Programmer; Machine Stitching; CNC Operator, Industrial Maintenance; Electrician; Assembly; Controls Engineering; Sprayers; Painting Skills; Housekeeping & Dietary; All; Refrigeration Tech; Diesel Tech; Truck Drivers; Electricians; Respiratory Therapy; Maintenance Personnel; Technicians to work on equipment; More technical IT positions; Hourly Labor; General Production; Maintenance; Machinist and Fabricators; General Labor.

10) What are some of the entry-level positions you most often hire for?

Answers included all of the following; Machine Operators; Technicians; Machine Operator Trainee; Industrial Machine Operators; Assembly; General Labor; Manual Lathe; Data Entry; Certified Nursing Assistant; Housekeeping; Medical Assisting; Welder; Maintenance; Diesel Tech; Wastewater Operator; Customer Service/Sales

11) In your company's opinion, which area do you believe Johnson county needs more focus in preparing students (select 3):



In another survey since the Implementation grant was awarded, the ATU-Ozark Campus and ATU Russellville campus in September of 2016 combined efforts to determine the need for a Bachelor of Applied Science Degree (BAS), as a stackable option on top of our Associate of Applied Science Degree (AAS). The new degree has since been implemented and offers students going through the Automation Technology program a clear path towards a Bachelor degree should they decide to go on past their Certificate of Proficiency, Technical Certificate or Associate of Applied Science in Automation Technology.

This Bachelor of Applied Science industry survey was deployed in September of 2016. The following industries responded: ABB/Baldor; Deltic Timber; A.C.C. Inc.; SGL Carbon; Wiederkehr Wine Cellars, Inc; Entergy; Gerber Products Co.; Evergreen Packaging; Tyson Foods; Kimberly Clark Corporation; Virco Manufacturing Corporation; Arkansas Career Training Institute; Rockline Industries; American Axle & Manufacturing (formerly Cloyes Gear); Brown Engineers; Arkansas Oklahoma Gas; Taber Extrusions; MAHLE Engine Components; Vire Control Systems; and four other companies who remained anonymous.

The related results to this grant proposal from the September 2016 BAS Survey are as follows:

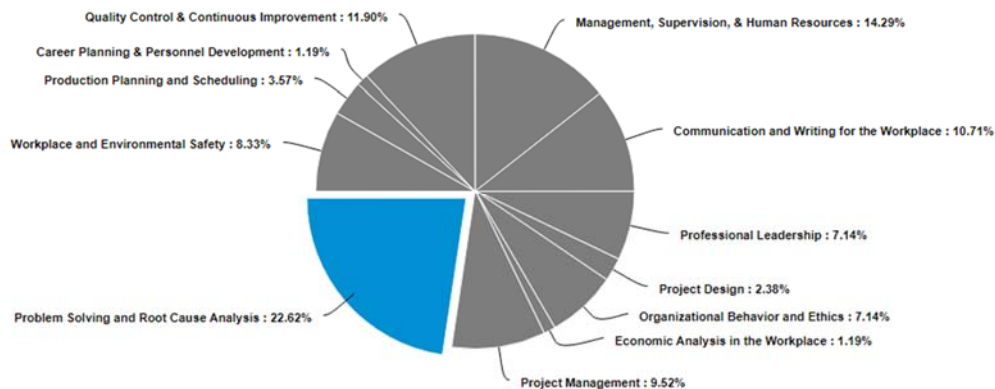
1) Does your company provide any type of tuition assistance to employees? Responses: 89% "Yes"; 11% "No".

2) List the job titles at your facility you feel would benefit from having access to a Bachelor of Applied Science Degree? Responses included all of the following:

Our jobs are inside sales and technical support and outside sales and technical support. Currently, everyone that works here has a bachelor's degree; Manufacturing Engineer / Eng. Mgr. Operational Excellence Manager/Engineer Front Line Supervisors Materials Buyer/Planner; Plant Manager Controller Engineering Quality Safety/Environmental Human Resources Lean Engineer Production Supervisor; Production Manager Scheduling Manager HR Manager; Production Management Black Belt Process Engineer Technical/Quality Manager Human Resources Manager Accounting Manager Engineering/Maintenance Manager; Sales Manager Production Manager Farm Manager Cost Accountant; Project Manager Engineering Technologist Radiation Protection; Production/Quality/Maintenance/Warehouse Supervisor & all management positions. Engineering; Process Engineer, Production Dept. Manager, Project Engineer, Accounting Manager, Human Resources Manager; Management; Production manager, Maintenance manager, safety manager, fleet manager, fleet supervisor, production supervisor, maintenance supervisor, waste water manager, HR Manager, HR supervisor.; Asset/Team Leader Platform Leader Engineering - Electrical, Mechanical, Chemical Micro-Biologist; Maintenance manager and supervisors; Production Supervisor Production Planner Buyer Production Team Leader; Production Supervisor Maintenance Supervisor General Production Manager; Front line leadership in Operations, Quality and Supply Chain; Any management position; Production Supervisor Production Manager; Certified Automation Professional, Project Engineer, Computer Engineer, Design Engineer; Asset Leader, Production Leader, CI, Engineering, Supply Chain, Logistics and Quality; Mid-Level Manager (EH&S, Maintenance, Production, Purchasing) Production Supervisor Scheduler/Planner Quality Control Technician; Logistics Planner II Production Supervisor Production Manager Logistics Manager Human Resources Manager Plant Manager Quality Manager; Supervisors, Management, Engineers; Controls Engineer Programmer.

3) From the following list, please select the 3 most important skills in which an employee should gain in order to succeed or advance at your facility:

Responses:



4) For the following skills, let us know the importance of each skill in terms of what allows an employee to succeed or advance at your facility:

Responses:

Question	Count	Score	Not Important	Somewhat Important	Important	Very Important
Management, Supervision, & Human Resources	28	3.18				
Communication & Writing for the Workplace	28	3.54				
Professional Leadership	28	3.25				
Project Design	28	2.61				
Industrial Psychology	28	2.36				
Organizational Ethics & Behavior	28	3.29				
Economic Analysis in the Workplace	28	2.64				
Project Management	28	3				
Problem Solving and Root Cause Analysis	28	3.57				
Workplace and Environmental Safety	28	3.39				
Production Planning & Scheduling	28	2.79				
Career Planning and Personnel Development	28	2.57				
Quality Control & Continuous Improvement	28	3.18				
Marketing	28	1.79				
Employment Law	28	2.18				

In regards to automated machining and CNC needs in the Western and West-Central Workforce Development Regions, ATU-Ozark is developing a curriculum in machinist operations that would fall under the Automation Technology umbrella. Currently, industries in these regions are underserved in machining training.

ATU-Ozark has three large employers in its service area that rely on a majority of positions involving machined parts knowledge, those being ABB (formerly Baldor) in Fort Smith and Ozark, American Axle Manufacturing (formerly Cloyes Gear) in Subiaco and Paris, AR, and MAHLE Engine Components in Russellville. There are numerous other manufacturers in these regions who also employ machinists, CNC operators, and CNC programmers.

The following data obtained from the Arkansas Economic Development Commission's Research Division shows the employment outlook for CNC and Machining in Arkansas:

SOC	Description	2014 Jobs	2020 Jobs	2014 - 2020 Change	2014 - 2020 % Change
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	2,225	2,375	150	7%
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	97	118	21	22%
51-4041	Machinists	3,298	3,461	163	5%
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	755	716	(39)	(5%)

(Arkansas Economic Development Commission, 2017)

Beginning with the Planning Grant process in 2014, ATU Ozark has been in contact with several employers to obtain information on their needs for qualified machinists. The following companies have expressed support in a machining program and having access to a pipeline of graduates to fill future and existing jobs: Bridgestone Americas Tube Business (Russellville), Virco Manufacturing (Conway), Green Bay Packaging (Morrilton), Taber Extrusions (Russellville), International Paper (Russellville), Kimberly Clark (Conway), Rockline Industries (Russellville), Grace Manufacturing (Russellville), Greenville Tube (Russellville), Butterball, LLC (Ozark), AAM (formerly Cloyes Gear in Paris and Subiaco), ConAgra Foods (Russellville), and MAHLE Engine Components (Russellville).

The following statistics were collected from the above companies to assist in showing the need for a machining curriculum in the Western and West Central Workforce Development Regions.

- Hourly salary for positions at their facility with job titles involving machining/machinist: Responses: \$18-19/hour; Start at \$11.75 and current top out at \$14.60/hour; \$21. /hour; \$12-\$16/hour; \$20 hour.
- Two of the above companies combined for 200 current jobs involving machining skills.
- One of the above companies expected to hire more than 20 plus machinists per year over the next two to five years.
- One of the above companies expected to hire 15 to 20 machinists in one year.

It is also important to include data collected prior to the planning grant phase and implementation grant phase of the Regional Workforce Grant program.

Before the Implementation grant application was submitted, ATU-Ozark conducted an industry survey and those results were included in the Implementation grant application. These answers are also included in this Continuation grant application for reference. This survey (deployed May of 2016) acquired quantitative data supporting the need for automation technology skill sets in local industry. Industries included in the responses: Entergy-Nuclear One, City Corporation of Russellville, West Fraser, Hanesbrands Inc., Vire Control Systems, JW Aluminum, International Paper, MAHLE Engine Components USA, Inc., Virco Manufacturing, Tyson Foods, Baldor Electric Company, Olin Chemical, and three others who remained anonymous.

In the May 2016 Industry Survey, the following data was collected:

- 1) Would the implementation of automation technology programs be of benefit to your business in the future in terms of recruitment and access to skilled labor? 100% responded as “Yes”, 0% responded as “No.”
- 2) How difficult is it to find qualified workers with the right skillsets in industrial automation including electrical, mechanical, and computer automation skillsets? 62.5% Very difficult; 37.5% Somewhat difficult; 0% Neither difficult or easy; 0% Not difficult
- 3) On a scale of 1 to 10, please indicate the difficulty of finding workers in the Arkansas River Valley with skill sets in automated technology or other advanced industrial operator technology (10 being the most difficult to find, 0 being easiest to find)? 31.25% gave a rating of “9”; 43.75% gave a rating of “8”; 18.75% gave a rating of “7”; 6.25% gave a rating of “6.”
- 4) Do you see the lack of available skilled labor in either industrial automated technology or other computer-automated equipment as a top 3 skill gap issue in regards to hiring or training workers at your facility? 93.75% responded as “Yes”; 6.25% responded as “No.”
- 5) Would you be willing to explore partnership ideas with Arkansas Tech University-Ozark Campus in regards to our new automation programs? 87.5% responded as “Yes”; 12.5% responded as “Not sure at this time.”
- 6) In regards to the jobs at your facility that involve skills in industrial automation or other computer automated equipment, do you expect these jobs to grow or decline over the next 10 years? 81.25% responded as “Grow”; 18.75% responded as “Not sure at this time”; 0% responded as “Decline.”

- 7) What is the entry level salary for a position in automation technology? The following answers were obtained as open ended responses:
- \$60K to \$90K annually depending on background and experience
 - Base salary starts at \$14 per hour for a maintenance tech and up to \$22 per hour depending on skill set
 - \$30,000 annually
 - \$17 per hour
 - \$13.11 per hour
 - \$45K to \$75K based on experience
 - \$22.92 per hour
 - \$40,000 annually
 - \$20.00 per hour
 - Entry level positions begin at \$12.75, but can top out around \$20
 - \$25K to \$45K annually depending on department
 - \$14 per hour
 - \$11 to \$17 per hour for entry level

Data in both Western and West Central Workforce Development Regions as identified by industries have demonstrated automation technology as a top need. By providing these skill sets beginning in secondary education with a continued track through two-year and four-year options, ATU - Ozark can fill the skill gaps providing and supporting entry level workers to include incumbent employees.

ATU-Ozark also deployed an industry survey prior to the Planning Grant phase of the Regional Workforce Grant Program. These results were included in the Planning Grant but are also listed here in the Continuation grant application for reference:

In August of 2015, Arkansas Tech University-Ozark campus conducted a survey of several large manufacturers across Western and West-Central Arkansas to determine the industrial automation labor needs in these regions. Respondents included the following industries: ConAgra, Bridgestone Americas Tube Business, Dow Chemical, International Paper, Baldor Electric Company, Cloyes Gear and Products (now American Axel Manufacturing), Vire Control Systems, and two other companies who wished to remain anonymous.

Results of the 2015 survey are as follows:

1) When asked how difficult it is to find qualified workers with the right skillsets in industrial automation, 70% of respondents claimed it was very difficult to find these type of workers and 30% saying somewhat difficult. None of the companies responded as saying it was easy to find these types of workers.

2) When asked how important automated equipment will be to their facility over the next 5 years, 70% of respondents said it would be very important to their plans over that time frame, and 20% saying it was somewhat increasing in need.

3) In terms the skills gap, 100% of companies who responded said that the lack of available skilled labor in automated technology or other computer-automated equipment was a top 3-skill gap issue for their facility.

4) How difficult is it to find qualified machinists or workers with skillsets in machining or machined parts? 60% responded as "Very Difficult"; 30% "Somewhat Difficult"; 10% "Neither Difficult or Easy".

5) Do you see the lack of available skilled labor in either electrical or mechanical aptitudes as a top 3-skill gap issue at your facility? 90% responded as "Yes"; 10% responded as "No".

6) Compared to past years, how difficult is it today to find workers with skillsets in industrial automation? 66% responded as "More difficult today than in the past; 33% responded as "About the same".

7) What is the one job you have the most difficulty filling?

Responses included all of the following: Instrument technician; Maintenance technician; Millwright; Machinist; Instrument Technician; Engineering and/or technical positions; All maintenance/technical fields; CNC operator; Machine Shop; Multi-craft maintenance technicians; Automation Engineers; PLC and HMI Programmers; Industrial Electrician.

ATU-Ozark found from the survey conducted for this initial Planning Grant phase overwhelmingly showed that the top jobs that are hardest to fill include those with technical expertise in instrumentation, machining, maintenance, automation, programmable logic controllers, and other electrical knowledge-based jobs, all of which have a strong relationship to automation.

Alignment with Arkansas economic and workforce goals

Arkansas Tech University – Ozark Campus plans to meet the economic and workforce goals of the State of Arkansas by providing access to stackable degree options and industry credentials. Utilizing the data of our regional WIOA industries, our continuation plan builds upon the specific skills leading to credentials which support top workforce needs in automation.

Access is a key criterion to recruit and allow students and industry to participate in targeted skills leading to stackable credentials. The ATU alliance of 19 public schools, locations in Russellville, Ozark, Paris, and Clarksville support multiple automation industries in the WIOA regions of western and west central.

The Ozark Campus has built a credential attainment and degree ladder. Students begin training in the identified skills leading to entry level industry credentials; to certificates of proficiency, to technical certificates, to associate of applied science degrees, to bachelor's degree and up to master's level training. Students entering into the ATU – Ozark program of study at the high school or traditional student level are afforded the ability to capture the credential needed at that point of their life or career.

SECTION 2 – PROGRAM PLAN

25 Points

Program plans must be designed to meet the goals and core requirements of the Regional Workforce Grants program as well as the following Essential Components:

- Detailed project timeline and overview- provide a month-by-month overview of the critical convening, activities, and actions that will comprise the project.
- Measurable objectives for each phase of the project- detail the metrics utilized throughout the project to track how credentialed job candidates possessing the skills needed by employers will be provided.
- Project governance and accountability plan- clearly describe the plan for governance, meetings, and decision-making structure; identify a project director; and identify members of a project steering committee that will maintain oversight throughout the project period.
- Pathways articulation and support- clearly describe the educational pathway(s) and support services that will be developed, or existing pathways that will be enhanced, to meet the identified workforce needs. Pathways should incorporate all appropriate student outcomes from short-term industry-recognized credentials through the highest certificate or degree programs appropriate to the identified career goals and include career step-out points at the completion of each credential.
- Role of equipment request- required only for those proposals seeking equipment purchases. Outline how equipment purchase will specifically address local labor market needs; provide detailed description of equipment, educational value of equipment in preparing workforce, and justification for purchase.
- Performance assessment- clearly define measurable outcomes to be achieved through continuation of the plan and strategies to measure and report achievement of those outcomes. Priority will be given to programs which prepare candidates for high wage jobs or which create capacity to move candidates from unemployment to employment.
- Program plans must be designed to meet the goals and core requirements of the Regional Workforce Grants program. At a minimum, the plan must include a detailed project timeline and overview, measurable objectives for each phase of the project, a project governance and accountability plan, pathways articulation and support, the role of any equipment requested, and a performance assessment.

Keep the following rubric in mind when completing this section:

	Exemplary	Superior	Adequate	Needs Improvement
Program Plan (25 Pts)	Plan addresses all goals and core requirements and properly connects all activities to measurable outcomes that address workforce needs. (22–25 Pts)	Plan addresses most goals and requirements and substantially connects activities to measurable outcomes. (18–21 Pts)	Plan addresses many goals and requirements and connects some activities to measurable outcomes. (14–17 Pts)	Plan lacks significant requirements or connections of activities to measurable outcomes are not clear. (0–13 Pts)

Please enter your answer in the box provided below. Feel free to include any necessary charts, graphs or tables.

Program Plan

Arkansas Tech University’s Training Alliance proposal is an effort to meet the defined need in Automation Technology at a local, regional, and state level. This proposal closes the skill gap by developing a pipeline of skilled workers beginning at the secondary level as they acquire credentials through the Arkansas Tech University system.

In Phase I, the Arkansas Tech University Career Training Alliance explored and verified an accurate need to support automation training. Career pathways and instructional design were determined and curricula was modified reflecting the modern aspects of manufacturing. Lab equipment was evaluated, and determinations were made to plan for the restructure of student access, career paths, stackable credentials, and linkages from high school to work and high school to more advanced degree training in support of these high wage high demand occupations.

The Alliance also identified a curriculum supporting skill sets required to meet the skills gaps outlined through our industry partners. As part of the planning phase, a review of recognized industry credentials and professional training was initiated to assist in the development of a regional educational model that represents the future of automation in industry. The Alliance also explored other out of state models that represent this STEM initiative. The Alliance reviewed during this phase all programs and linkages to accentuate and enhance current offerings outlined in the recommendations of the Southern Regional Education Board (SREB). The SREB outlines in the full report, *Credentials for All: An Imperative for SREB States*, eight educational actions that they recommend to transform education. To meet this challenge, the Alliance implemented these recommendations during Phase I and continued its enhancement in Phase II of current program offerings developing pathways and credentials supporting local, regional, and our state’s workforce.

In Phase II, The Alliance requested support to construct laboratory infrastructure at ATCC and its satellites to compliment the certification and degree offerings in Automation Technology Science. This configuration provides access points with attention to underserved

rural students at the secondary level. The Paris Satellite will focus on entry level skill sets in the mechanics, electronics and hydraulic systems of Automation Technology. The Clarksville Satellite will provide entry level training in the computer communications utilized in the automation systems components. The ATCC location will serve as the main access point for rural secondary students into the automation field. It also serves as a complete lab setting with the ability to transition secondary concurrent students to Associate of Applied Science degrees in Automation Technology. In all locations, access to post-secondary students will utilize equipment and facilities to gain access to training leading to degrees or to serve industry in noncredit training applications as needed.

The Alliance over the last 8 years has developed the partnerships and structure to support the skills gap training in our river valley region. Arkansas Tech University – Ozark Campus has built partnerships through its relationships with Arkansas Tech Career Center and the public schools it supports. This relationship is centered on the local community / school district providing the space required to house and provide training at the secondary level. Industry and relevant skills sets is focal in this partnership. The Ozark Campus is responsible for the instructor and curriculum. As noted this type of arrangement provides access to underserved rural populations. It is strategic in its inception devoted to skills training relevant to local industry needs.

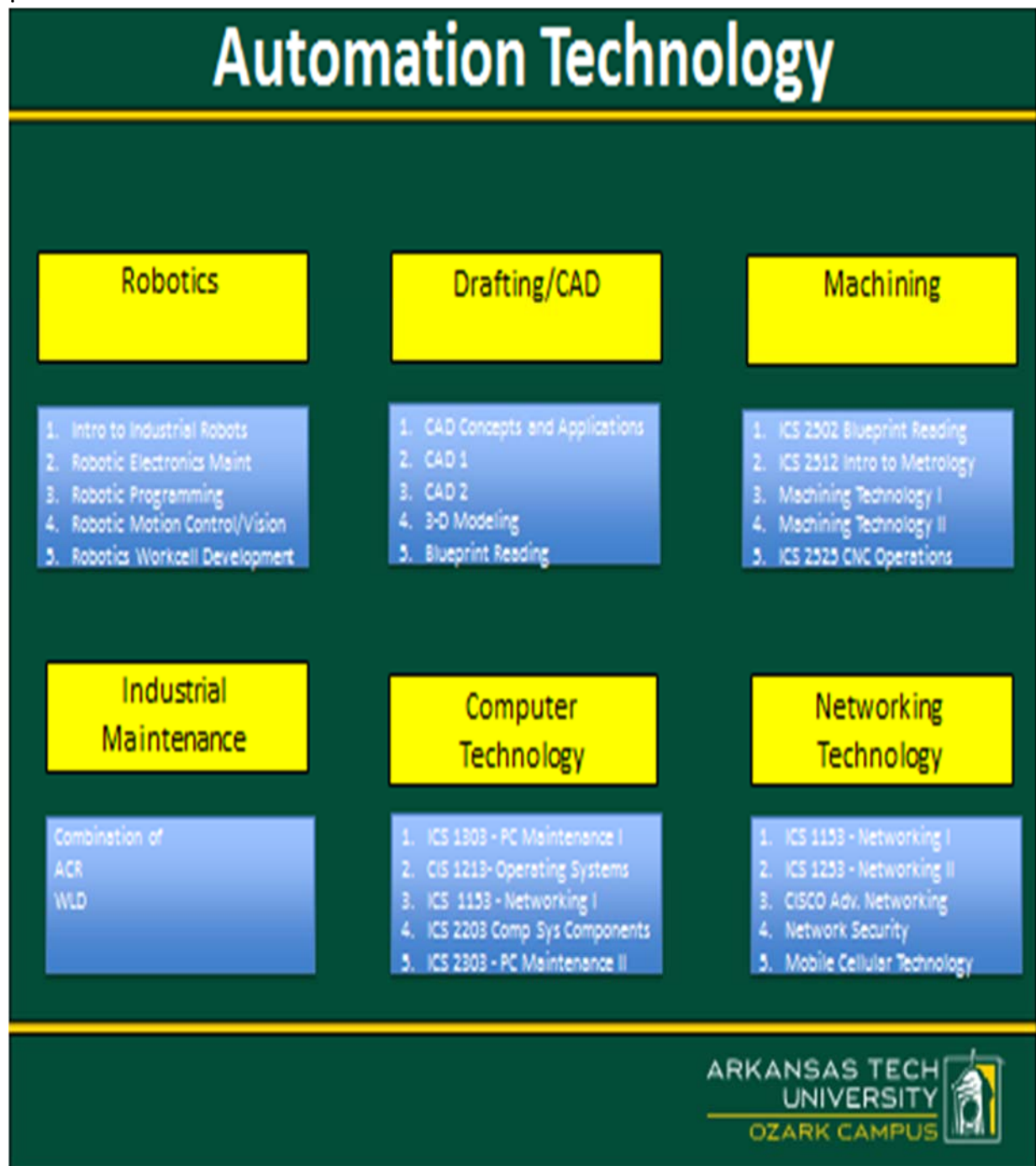
The Paris Satellite completed in January 2018, is a joint venture between Paris Public Schools, the City of Paris, local industry and the Ozark Campus. Tyson Foods supported the Ozark Campus efforts with substantial monies allocated to build an appropriate training center during phase II of our project. The Tyson Foods Logan County Training Center is supported by Arkansas Career Education, Arkansas Tech University, Paris Public Schools, and has obtained other local industry funding to build appropriate facilities to support a regional need in automation training.

The Clarksville Satellite is in partnership with Clarksville Public Schools which provides the facilities required to access the computer communications skills utilized in automation Technology. Clarksville Public Schools is currently in a building phase that includes an automation lab and computer science lab as part of its project. We expect this building project to be dedicated in August 2019. Both satellite locations support the introduction of the identified skills in Automation Technology. The partnerships build a quantifiable and qualifiable workforce serving the regions of both West and West Central Workforce districts. In combination with ATU –Ozark, ATCC, ATU and the schools served by our educational partners, local and regional industries will have access to a pipeline of employable students ready for entry level Employment.

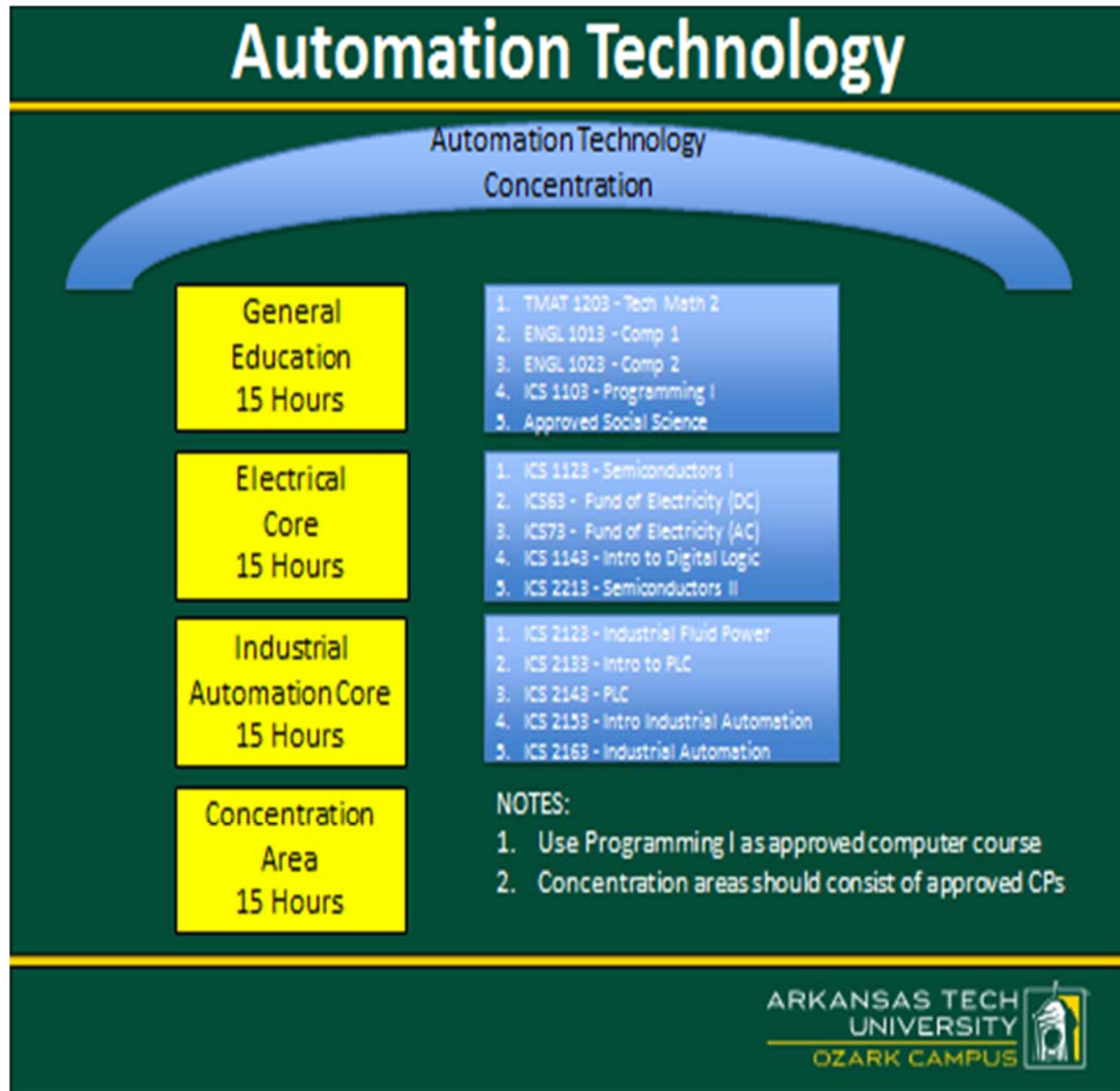
In Phase III of the Continuation Grant, ATU –Ozark proposes to continue its expansion of Automation instruction and the specific skill sets recognized by industry in: Machining, Drafting/CAD, and Robotics. These skill sets are limited in our region as identified in Section I under program need under program data. The Ozark Campus has built the curricular capacity to serve automation degree options. Our last step would be to provide additional up to date automation equipment in service to: machining, robotics, and CAD. ATU – Ozark will also request funding to support instruction in these areas for the two (2) year period covered in the grant. Additional instruction is needed to provide training in the specific skilled

areas as well as access to relevant training with attention to the non-traditional student and their schedule requirements.

Please refer to the chart below outlining the ATU – Ozark training concentrations developed through Implementation Phase II. Each training option below outlines a certificate of proficiency credential offered by ATU Ozark.



Training concentrations may be inserted into Associate of Applied Science degree in Automation as detailed below:



During Implementation Phase II of the Regional Workforce Grant, Arkansas Tech University Career Training Alliance focused on four (4) overarching goals:

Goal One: Establish and enhance curriculum and educational equipment in Automation Technology Science supporting the workforce labor needs as recognized by local, state, and national data.

Goal Two: Implement and enhance career training and educational structure supporting the recommendations and actions outlined by the Southern Region Education Board, “Commission on Career and Technical Education”.

- ☐ Build high school to post-secondary bridges and 2 year to 4-year degree linkages.
- ☐ Identify college readiness standards necessary for career and educational success.
- ☐ Provide relevant and stackable industry recognized assessments preparing workers for rapid entry into the workforce.
- ☐ Provide and enhance career education instructors’ professional development.
- ☐ Increase career offerings and opportunities to earn concurrent credit.
- ☐ Enhance and align secondary and post-secondary career education curriculum leading to industry credentials and degrees.
- ☐ Develop retention and bridge programs to encourage secondary students to complete structurally guided pathways.
- ☐ Increase the number of high school students entering relevant career training programs.

These action steps facilitated an educational design structure enhancing instruction, curriculum alignment, and student outcomes leading to careers.

Goal Three: Provide industry access to valued career training opportunities in Automation Technology Science utilizing up to date and recognized equipment and facilities.

Goal Four: Provide strategic marketing and career path information beginning at the middle school level to continue through post-secondary level bachelor’s degree. This marketing will be centered on career pathways to industry recognizing a diverse population and the job opportunities for this diverse population. Marketing includes completing the bridge from secondary career path to post-secondary career path to industry. The alliance will facilitate these efforts through:

- ☐ Career Development Facilitator working with student support services.
- ☐ Enhancing career academic advising.
- ☐ Providing employment and financial data.
- ☐ Establishing clear and defined career pathway marketing.

In Phase III of the Continuation Grant, Arkansas Tech University – Ozark Campus proposes to continue supporting Implementation Phase II Goals enhancing equipment, instruction, and student-learning outcomes needed to support automation in Robotics, Drafting/CAD and Machining concepts to address the industry recognized training needs of our river valley region.

Detailed Phase III Project Timeline and Overview

July 2018-

- Advertise for Additional Faculty Robotics Member
- Develop Request for Proposal for Equipment
- Restructure Machining Certificate of Proficiency (CP)

August 2018-

- Request for Proposal (RFP) for Equipment Advertising
- Robotics curriculum continuation and classes begin

September 2018-

- Advertising for RFP for Equipment closes

- Start Development of Curriculum for Robotic Certificate of Proficiency (CP)
- October 2018-
- Go to ADHE Coordinating Board to obtain approval for the changes for the restructure of Machining Certificate of Proficiency
 - RFP closes, and vendor Selection process begins
- November 2018-
- Select Vendor for equipment purchases
- December 2018-
- Release purchase order to procure the equipment
- January 2019-
- Machining curriculum implementation and classes begin
- March 2019-
- Receive and install equipment
 - Begin recruitment of students (all campuses)
- June 2019-
- Faculty training and development
- August 2019-
- Machining curriculum continues, and classes begin
 - Robotics curriculum continues, and classes begin

Phase III Measurement and Metrics

August 2018-July 2019-

ATU-Ozark will receive and install equipment, as well as, hire an instructor to provide instruction and expand the current automation program to include: robotics, CAD/drafting, and machining.

August 2019-

Initiate classes in robotics, CAD/drafting, and machining.

Project Governance and Accountability

The Arkansas Tech University Career Training Alliance will fall under the governance structure currently in place at Arkansas Tech University as outlined by state law, and the Alliance will coordinate and oversee all industry and educational partnerships. Program offerings will be accountable to the Board of Trustees at Arkansas Tech University through the Arkansas Department of Education Coordinating Board. Programs housed at the secondary level will meet the accountability and regulatory guidelines as defined by Arkansas Career Education. Credit earned concurrently will also meet the regulatory guidelines as outlined by state law and the Arkansas Department of Education.

The Career Training Alliance will hold bi-annual meetings and serve as a career pathway advisory board. The Alliance will be made up of Arkansas Tech University-Ozark Campus administrative unit, Arkansas Tech University Academic Affairs, the director of Arkansas Tech Career Center, member superintendents under the alliance, automation technology faculty, and industry representatives from partner industries utilizing automation technology systems.

Project Director: Mr. Bruce Sikes, Chancellor, Arkansas Tech University-Ozark Campus
Project Steering Committee: Mr. Mike Murders - Chief Academic Officer at Arkansas Tech University-Ozark Campus, Mr. Justin Smith – Chief Business and Community Outreach Officer at Arkansas Tech University-Ozark Campus, Mrs. Pat Edmunds – Director of Arkansas Tech Career Center, Mr. David Hopkins – Superintendent Clarksville Public Schools, Wayne Fawcett-Superintendent Paris Public Schools.

Pathways Articulation and Support

The Automation Technology Program supported by the Arkansas Tech University Career Training Alliance will obtain at minimum one recognized industry credential supporting multiple certificate of proficiencies leading to a Technical Certificate; to an Associate of Applied Science degree in Automation offered through Arkansas Tech University Ozark Campus. Upon completion of the Associate of Applied Science in Automation Technology, Students may continue their career path through a Bachelors of Applied Science degree offering at Arkansas Tech University.

Arkansas Tech University- Ozark Campus

Automation Technology to Bachelor of Applied Science



Legend:



Students may enter the automation pathway via Arkansas Tech Career Center (ATCC) and concurrent credit. ATCC is the universities technical center supporting 19 public schools and 4 locations. Students may also enter the automation pathway through Arkansas Tech University – Ozark Campus as a traditional student utilizing the Ozark Campus automation lab or additional facilities located in Paris (Tyson Foods Logan County Training Center) or ATCC.

Lastly, the automation pathway recognizes targeted skill sets that may be non-credit training opportunities for industry specific needs. ATU – Ozark supports non-credit training and provides a pathway to transition non-credit training into credential and degree attainment if the individual or industry desires through measured outcomes and Prior Learning Assessments.

Students are supported throughout this process through: a secondary Career Facilitator, Student Success Coordinator, Student Services and Advising, Financial Aid Office, Community and Business Outreach Office, Career Services, and instructor advising.

Equipment Needs

The Arkansas Tech University Career Training Alliance in Phase III is requesting equipment in Automation Technology to continue supporting secondary and post-secondary instruction at the Arkansas Tech University Career Center and its satellite at Paris. The equipment listed below with instructional justifications will support the expansion of the Automation Technology laboratory infrastructure at our Ozark Campus, ATCC, and at the Paris satellite complimenting the certification and degree offerings in Automation Technology specific to Machining/ CAD, and Robotics. Machining / CAD and Robotics equipment is required to address the specific and identified skills gap needs (please refer to Survey Data section) of our Western and West Central WIOA regions. All equipment listed below represent items that may be purchased and include product descriptions and pricing as identified at this time, however prices or needs may change based on the program development. Therefore, individual line items or prices are listed as estimates and may change at the time of purchase. Based on those adjustments, purchases for this equipment will not exceed the total amount listed at the end of the table below.

Robotics-Ozark Location

Course #	Equipment Description	Educational Value	Costs
ICS-###3	890-PECB	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$9,558.25
ICS-###3	890-AB5500	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$17,184.96

	ICS-###3	82-800 RS Logix Software-1 Seat License	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$2,922.73
	ICS-###3	89-DWS Wiring Application	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,171.30
	ICS-###3	17251 Wiring Toolkit	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$132.60
	ICS-###3	17247 DC Wiring Consumables	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,587.89
	ICS-###3	89-PVAB5500 PanelView Plus Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$12,166.05
	ICS-###3	89-EN-AB5500 PLC EtherNet Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$11,547.25
	ICS-###3	82-711 FactoryTalk View Software-1 Seat	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,011.08
	ICS-###3	89-MP-PLC Expansion Package	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$607.75
	ICS-###3	890-S7312B PLC Troubleshooting (Siemens)	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$7,434.44

ICS-###3	82-900 Siemens STEP 7 PLC Software-1 Seat License	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,752.53
ICS-###3	89-IOS-I/O Simulator	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,790.10
ICS-###3	89-OS-PDS-Programmable Display	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$2,861.95
ICS-###3	89-BCD-B-BCD/LED Application Station	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,491.75
ICS-###3	89-EP Electro-Pneumatic Application	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$2,519.40
ICS-###3	89-EMT-Electro-Mechanical Application Station	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$2,375.75
ICS-###3	890-S7315B Siemens S7315	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$10,987.02
ICS-###3	89-AS-S7300 PLC Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$4,947.09
ICS-###3	89-ASIS7 PLC ASI Bus Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$11,159.40

	ICS-###3	89-DP-S7300 PLC Profibus Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$6,813.43	
	ICS-###3	89-GP-S7300 PLC Graph Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$370.18	
	ICS-###3	89-HMIS7A PLC Touch Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$11,876.54	
	ICS-###3	89-RIO-S7 PLC Distributed I/O Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,187.88	
	ICS-###3	89-SL-S7300 PLC Statement List	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,602.25	
	ICS-###3	890-AB503 PLC Learning System-AB SLC 503	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$11,892.01	
	ICS-###3	89-AS-AB500 PLC Analog Application	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$6,269.77	
	ICS-###3	89-DHAB500A-PLC Data Highway Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$3,259.75	
	ICS-###3	89-PVAB500 PanelView DH485	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$12,155.00	

ICS-###3	89-RIO-AB500 PLC Distributed I/O Learning System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$5,911.75
ICS-###3	LR Mate 200iD cert cart Fanuc Robot cell	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$38,675.00
ICS-###3	IRB 120 Robot IRB200 (ABB) Robot	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$14,363.90
ICS-###3	LR Mate 200iD Vision System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$11,050.00
ICS-###3	85-MT5 Electric Motor Control System	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$11,774.88
		Shipping	\$2,762.50
		Total	\$245,174.13

Robotics-Russellville Location

Course #	Equipment Description	Educational Value	Costs
ICS 1143	90-ECIA Electric Relay Control Learning System	This system supports introduction to digital logic, basic digital logic gates, truth tables, numbering systems, and different types of TTL integrated circuits.	\$7,586.93
ICS 2153	85-MT5 Electric Motor Control Learning System	This equipment support fundamental principles of circuit configurations used in industry.	\$11,774.88
ICS 2153	890-FTS1 Fault Troubleshooting System Adds to the 85	This equipment support fundamental principles of circuit configurations used in industry.	\$7,757.10

ICS 2153	850-MT6B Electrical Wiring System	This equipment support fundamental principles of circuit configurations used in industry.	\$13,811.40
ICS 2153	41209 Handtools Electrical Wiring	This equipment support fundamental principles of circuit configurations used in industry.	\$914.94
ICS 2153	17463 Consumables 850-MT6B	This equipment support fundamental principles of circuit configurations used in industry.	\$571.29
ICS 1163 & ICS 1173	85-MT2E Electric Motor Troubleshooting	This equipment supports fundamental principles of AC and DC Circuits	\$3,042.07
ICS 2153	85-MT6BB Industrial Soldering	This equipment support fundamental principles of circuit configurations used in industry.	\$1,381.25
ICS 2153	EL613-43 Prony Brake	This equipment support fundamental principles of circuit configurations used in industry.	\$1,569.10
ICS 1163 & ICS 1173	18414 Photo Tachometer	This equipment supports fundamental principles of AC and DC Circuits	\$1,171.30
ICS 2123	950-HM1 Hydraulic Maintenance Learning System	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$14,054.50
ICS 2123	85-HPS3 Hydraulic Power Supply	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$4,301.77
ICS 2123	950-HTB1 Basic Hydraulic Troubleshooting Learning System	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$22,818.25
ICS 2123	850-CD2 Basic Fluid Power Learning System	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$20,499.96
ICS 2123	85-IH Intermediate Hydraulics Learning System	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$6,502.93

ICS 2123	79-552 Accumulator Charging Assembly	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$1,075.17
ICS 2123	16391 Hydraulic Oil 10 Gallon	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$762.45
ICS 2123	85-IP Intermediate Pneumatics Learning System	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$2,726.04
ICS 2123	990-PAB53AF Portable Pneumatic Troubleshooting	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$13,727.42
ICS 2123	950-MPF1 Mechanical Fabrication	This system supports basic knowledge and application of hydraulic and pneumatic principles.	\$9,552.73
ICS 2133 & ICS 2143	990-PAB53AF Portable PLC Combined Troubleshooting Learning System-AB CompactLogix L16	This equipment supports basic knowledge and application of programmable controllers.	\$38,588.81
ICS 2133 & ICS 2143	82-8RSM RS Logix 5000 Mini PLC Programming Software-Single Seat	This equipment supports basic knowledge and application of programmable controllers.	\$1,175.72
ICS 2133 & ICS 2143	82-711 Factory Talk View ME Programming Software	This equipment supports basic knowledge and application of programmable controllers.	\$2,022.15
ICS 2133 & ICS 2143	87-IOAB53A PLC Learning System	This equipment supports basic knowledge and application of programmable controllers.	\$9,007.96
ICS 2153	85-MT6BA VFD/PLC Wiring	This equipment support fundamental principles of circuit configurations used in industry.	\$4,127.18
ICS 2153	17449 Consumables 85-MT6BA	This equipment support fundamental principles of circuit configurations used in industry.	\$109.40

ICS 2153	85-MT5C Variable Frequency AC Drive Learning System	This equipment support fundamental principles of circuit configurations used in industry.	\$2,861.95
ALL	82-610W Mobile Technology Workstation	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$4,364.75
ICS ###3	IRB120 Robot	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$14,363.90
ICS ###3	Robert Software Bundle	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,435.40
ICS ###3	Pneumatic Training Gripper	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$2,569.13
ICS ###3	ABB Integrated Vision Equipment	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$5,801.25
ICS ###3	ABB Integrated Vision Integration & Assembly	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$1,105.00
ICS ###3	ABB SMART Instructor Certification Program	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$4,530.50
ICS ###3	442L-SFZNMN Allen Bradley LASER SCANNER	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$3,063.06
ICS ###3	442L-ACABL20 Allen Bradley LASER SCANNER Cord Set	This equipment will support instruction in the operation, programming, and service	\$108.11

			involving modern industrial robots.	
ICS ###3	440C-CR30-22BBB Allen Bradley LASER SCANNER Control Relay	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$511.46	
ICS ###3	ABB Robot Table	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$3,591.25	
ICS ###3	546-176F 176F Hammond Manufacturing Transformer	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$189.47	
ICS ###3	CAT-4610AC California Air Tools CAT-4610AC	This equipment will support instruction in the operation, programming, and service involving modern industrial robots.	\$248.49	
		Shipping	\$2,762.50	
		Total	\$248,138.92	

Machining-Paris Location

Course #	Equipment Description	Educational Value	Costs
ICS 2525 &ICS 2515	TL-1 Tool room Lathe (Haas)	This system supports basic knowledge and application of concepts and capabilities of computer numerical control machine tools, programming, setup, and operation of turning centers.	\$96,742.75
ICS 2525 &ICS 2515	TM-1P Tool room Mill (Haas)	This system supports basic knowledge and application of concepts and capabilities of computer numerical control machine tools, programming, setup, and operation of turning centers.	\$96,742.75

ICS 2525 &ICS 2515	Tooling Tooling Package for all machines	This system supports basic knowledge and application of concepts and capabilities of computer numerical control machine tools, programming, setup, and operation of turning centers.	\$13,894.27
ICS 2525 &ICS 2515	Simulators Haas Control Simulators	This system supports basic knowledge and application of concepts and capabilities of computer numerical control machine tools, programming, setup, and operation of turning centers.	\$7,491.90
ICS 2525 &ICS 2515	A02B-0158-B100#US Fanuc CNC Simulators	This system supports basic knowledge and application of concepts and capabilities of computer numerical control machine tools, programming, setup, and operation of turning centers.	\$3,176.88
ICS 2525 &ICS 2515	Item # 18F193 Mfr. Model # 350017 Mill/ Drill	This system supports basic knowledge and application of concepts and capabilities of computer numerical control machine tools, programming, setup, and operation of turning centers.	\$3,868.38
WLD 1403	Pro-tools MB-105HD Tube Bender	This system supports basic knowledge and application of concepts and capabilities of computer numerical control machine tools, programming, setup, and operation of turning centers.	\$3,903.06
WL 1403/ICS 2525/ ICS 2515	TM4400 EDU Torchmate CNC plasma table/CAD	This system supports basic knowledge and application of concepts and capabilities of computer numerical control machine tools, programming, setup, and operation of turning centers.	\$25,310.72
		Shipping	\$2,762.50
		Total	\$253,893.21

Performance Assessment

Arkansas Tech University-Ozark will enroll, retain, credential, and graduate students earning CPs in Robotics, CAD/drafting, and Machining leading to a technical certificate in Industrial Control Systems and an Associate of Applied Science in Automation. In Phase III, the Ozark Campus will make these options and credentials available servicing ATCC, its satellites, Ozark Campus, and Non-traditional offerings.

Performance Assessments

August 2019-

- Enroll 10 students in Robotics
- Enroll 10 students in CAD/drafting
- Enroll 10 students in Machining
- Enroll 15 students in Technical Certificate in Industrial Control Systems
- Enroll 15 students in AAS Automation

May 2020-

- 80% of students will complete Certificate of Proficiency in Robotics
- 80% of students will complete Certificate of Proficiency in CAD/drafting
- 80% of students will complete Certificate of Proficiency in Machining

June 2020-

- 80% of students enrolled in Technical Certificates in Industrial Control Systems will complete Technical Certificates

December 2020-

- 80% of students enrolled in AAS in Automation will complete AAS requirements

SECTION 3 – STRENGTH OF PARTNERSHIP

20 Points

Proposals are required to address how the program plan incorporates each of the mandatory partners, as identified above, in a meaningful role.

Essential Components:

- Detailed description of role of each partner in continuation of the project- describe how each partner will continue to carry out components of the grant project; provide a description of assigned tasks for each of the mandatory partners; identify specific personnel and the roles they will play throughout the project; describe the integration of each role into the overall project; and describe the process for implementing fully articulated pathways from K-12 through a baccalaureate degree, as appropriate.
- Capabilities of each partner in ensuring project success- discuss the unique strengths of each partner in continuing the implemented project; describe how each partner is qualified to continue to participate in the project and how each partners strengthens the overall partnership.
- Consideration of all potential partners in the region – describe the process for identifying each selected partner, including the consideration of regional community colleges, universities, public schools, education service cooperatives, businesses and industries, career and technical education programs, multidistrict vocational centers, and private partnerships.

Keep the following rubric in mind when completing this section:

	Exemplary	Superior	Adequate	Needs Improvement
Strength of Partnership (20 Pts)	Plan includes broad representation and each partner has a defined role with identified critical contributions. (18–20 Pts)	Plan includes broad representation but partner roles are not clearly defined. (15–17 Pts)	Plan lacks one or two important partners or not all partners are critical to success of the plan. (11–14 Pts)	Partner participation is too narrow or some partners do not contribute meaningfully. (0–10 Pts)

Please enter your answer in the box provided below. Feel free to include any necessary charts, graphs or tables.

Partnership Introduction

The Arkansas Tech University Career Training Alliance brings together partners from industry, secondary education, higher education, and local Workforce Development Regions. The Arkansas Tech University Career Training Alliance has partnered with local industries which are economic engines throughout Western and West-Central Arkansas. Arkansas Tech Career Center (ATCC) is the Career and Technical Education link at the high school level through its satellites Paris and Clarksville and the 19 high schools served by those locations. Our Alliance also stretches across two Workforce Development Regions obtaining support from both the Western and West-Central Regions. Furthermore, Arkansas Tech University-Ozark Campus and our Russellville campus provide stackable options for those wanting to advance through the automation technology pathway.

Role of Industry Partners and Capability of Ensuring Success

In the Implementation Phase II, Arkansas Tech University-Ozark Campus received positive feedback and written / verbal support has been obtained from the following industries partners who will serve in various capacities in support of the Automation Technology expansion and upgrade:

Cloyes Gear and Products, Inc. (Paris and Subiaco,), Baldor Electric Company (Ozark), GreenBay Packaging, Inc. (Morrilton), Olin Corporation (formerly Dow Chemical in Russellville), Tyson Foods (Dardanelle Complex), Tyson Foods (Scranton), Vire Control Systems, LLC (Clarksville), Bridgestone Americas Tube Business (Russellville), ConAgra (Russellville), International Paper (Russellville), Entergy-Nuclear One (Russellville), JW Aluminum (Russellville), West Fraser (Russellville), City Corporation (Russellville), Hanesbrands, Inc. (Clarksville), MAHLE Engine Components, USA Inc. (Russellville), Virco Manufacturing Corporation (Conway) and Glatfelter (Fort Smith).

The industries listed above will assist in curriculum review, in hiring qualified and credentialed students as well to service the automation program in advisory capacities.

In Phase II, Tyson Foods Foundation contributed \$266,000.00 to assist in the development of automation at the Paris Satellite location. contributed

In the **Continuation Phase III**, ATU – Ozark has received additional donations from:

Jul-16	ABB/Baldor	
	(5) PIC ABB Trainers AC500	\$20,780
Jan-18	ABB/Baldor	
	Variable Frequency Drive Trainer	\$1,400
Apr-18	Tyson Foods, Inc.	
	Small Conveyor	\$1,400
	Small Conveyor	\$1,400
	Conveyor System	\$12,500
	Labeler	\$9,100
	Labeler	\$9,150
	Inline Scale Conveyor	\$7,750
<hr/> Total		\$63,480

Role of Educational Partners in Arkansas Tech University Career Training Alliance

Arkansas Tech University, Arkansas Tech University – Ozark Campus, and ATCC and its satellites will make available the following:

- ☐ Operational governance and fiscal oversight of operational budget
- ☐ Educational governance over the Ozark Campus and ATCC
- ☐ Bachelor's level pathway to transition Automation Technology from Industry
- Credential to Certificate of Proficiency to Technical Certificate to Associate of Applied Science to Bachelor's degree
- ☐ Leadership in instructional support to Automation Technology program
- ☐ Curriculum support to Automation Technology program
- ☐ Support governance structure of Arkansas Tech University
- ☐ Support fiscal oversight of operational budget
- ☐ Maintain Memorandums of Understanding with Arkansas Tech Career Center and
- Satellite locations of Paris and Clarksville
- ☐ Perform and maintain assessment data of Automation Technology program
- ☐ Linkage to AAS degree, Technical Certificate, and Certificate of Proficiencies
- ☐ Instructional salary of Automation Technology instructor at ATCC
- ☐ Access to support systems that assist the transition of students through degree paths
- ☐ Support gainful employment of students into the workforce
- ☐ Leadership in instructional support to Automation Technology program
- ☐ Governance structure of Arkansas Tech University
- ☐ Oversight in instruction to Paris and Clarksville satellites
- ☐ Housing for, and facilitation of instruction in Automation Technology and Computer
- Science providing access to students from: Pottsville, Russellville, Dover, Dardanelle,
- Danville, Yell County Westside, Two Rivers, Hector, Atkins public schools
- ☐ Instructional salary of Automation Technology instructor at Paris satellite
- ☐ Instructional salary of Automation Technology /Computer Science instructor at Clarksville satellite

- ☐ Classroom space housing and facilitate instruction in Automation Technology
- ☐ Access to rural students in Scranton, Magazine, and Countyline schools supporting Automation Technology instruction
- ☐ Leadership and supervision oversight of Automation Technology instruction
- ☐ Classroom space housing and facilitate instruction in Automation Technology focused in computer communications
- ☐ Automation Technology program access to rural students in Lamar, Johnson County Westside, and Clarksville
- ☐ Leadership and supervision oversight of Automation Technology /computer science Instruction

Arkansas Tech University – Ozark Campus has a history of providing instruction directed at meeting the needs of the industries served in the River Valley region. Each partner identified above provides an essential component in the development and sustainability of the automation pathway. Industry partners were selected based on their ability to employ entry-level workers and have a long history of service in our workforce regions. The Tyson foundation recognized the training benefit of the Ozark Campus partners by providing dollars to support the physical location of the Tyson Foods Logan County Training Center. Cloyes Gear Inc. (now American Axle Manufacturing), was an initial jumpstart to the training site plan as one provider of a quantifiable and qualifiable workforce at the local level.

SECTION 4 – BUDGET PLAN

15 Points

Proposals will include a detailed financial plan that maximizes efficient use of existing resources and a completed budget template.

Essential Components:

- Clear alignment between funding request and grant activities- detailed discussion of how each component of the grant budget supports the goals and stated outcomes of the program.
- Institutions may request up to \$1 million over two years that will provide resources to continue approved Phase 2 projects.
- Local match of at least 10% of the total request, with a maximum cap of \$50,000- all proposals will include a plan for local funding to match 10% of the total grant proposal. For example, a grant requesting \$400,000 in funding would be required to provide \$40,000 in matching funds. However, the local match is capped at \$50,000, meaning grants in excess of \$500,000 will have the same match as a \$500,000 project.

Note: With a submitted written commitment and payment guarantee from an industry partner, internship wages paid during the initial twenty-four (24) months of this program may be used to offset the local match amount on a dollar-to-dollar basis. Additionally, wages paid to incumbent workers of the employer while enrolled in academic training may be deducted from the match as well. Any entity wishing to utilize this method of funding the match must include the appropriate documentation with their proposal and, if selected for funding, will be monitored to ensure compliance.

Keep the following rubric in mind when completing this section:

	Exemplary	Superior	Adequate	Needs Improvement
Budget Plan (15 Pts)	Plan identifies efficiencies that take full advantage of existing human and physical resources and all requested resources clearly support the goals of the plan. (13-15 Pts)	Plan includes significant efficiencies from existing resources and all requested resources clearly support the goals of the plan. (10-12 Pts)	Plan includes limited efficiencies from existing resources or includes some questionable resource requests. (7-9 Pts)	Budget includes limited or no existing resources from partners or includes requests deemed unnecessary. (0–6 Pts)

Section 4.1 – Budget Plan Detail

Please provide your detailed financial plan in the box below.

The financial plan being proposed will support further growth of the existing programs established at the three locations. This proposal is focused on growth of the current programs and focus on meeting external employment needs of the manufacturing industries that rely heavily on robotics and machining skills. The prior Arkansas Regional Workforce Grant provided the initial money to launch the programs into a level that could meet these employment needs. The proposed financial plan will complement and grow the existing academic platform. By providing additional faculty member that supports enrollment growth, additional equipment to meet modern standards and experiences for the students, and miscellaneous supplies to support the overall academic process the program can have sustainability and long-term resources.

Current resources appropriated total \$321,310 for the three locations: Russellville, Paris, and Ozark. This includes four faculty members and related operational expenses. ATU-Ozark continues to seek external support from area businesses to obtain equipment and supplies to compliment the current program.

In January 2018, a new building was dedicated in part to the Paris Location Robotics Program. This location will be the initial location for the Machining Program being proposed in this grant cycle. The building was co-partnered with Paris Independent School District and Tyson Foods. The value of the building is \$266,000.

The Russellville and Ozark locations have established classroom and labs dedicated to the Robotics/Automation programs. Each budget cycle affords the opportunity to maintain and refurbish current facilities for the Robotics/Automation programs.

A.1. Personnel/Stipend-\$125,154

Provides for one new Robotics/Automation Faculty Member (salary and benefits) for a two year time. At the end of two years, the program has expected growth to assume the faculty member into general operations of Arkansas Tech University-Ozark budget.

A.2. Travel-\$75,000

NIMS is a national accrediting agency that will be utilized in the new grant period. NIMS has training requirements for the faculty and administration that will require travel and related costs. All travel associated with NIMS will support accreditation of the program.

Additional travel will be required for the new faculty member to be certified to use the FANUC and ABB robots. Our current faculty members will continue training to add to their current certification levels for both FANUC and ABB robots.

B.1. Equipment-\$747,206.26 (see itemized equipment listing):

Our original program location, Ozark Location, is updating current equipment to expand and modernize the curriculum. The costs associated with this location is \$245,174.13.

The Russellville ATCC Campus location is adding \$248,138.92 in equipment to enhance and expand the current robotics footprint.

ATU-Ozark is adding Machining program to our Paris location. The grant proposal is requesting \$253,893.21 to purchase the equipment to support the curriculum.

B.2. Materials and Supplies-\$25,000

Each location will need materials and supplies to support the curriculum. The supplies could encompass but are not limited to metal supplies for machining.

D. Cost Sharing-\$50,000

ATU-Ozark has built relationships with industry partners that affords the opportunity to have equipment donated to the program to support the curriculum. The donations of equipment expect to exceed the \$50,000 level. The University has a default operational backup plan, which would appropriate any funds up to the \$50,000 level to match the grant.

Section 4.2 – Budget Plan Template

Please complete the budget template below. Totals will calculate automatically based on your input. Institutions may request up to \$1 million in grant funding for Phase 3 Projects.

Requesting Institution:	Arkansas Tech University-ATU
Title of Project:	Robotics Continuation and New Machining Program Development

A. PROGRAM LEADERSHIP SUPPORT COSTS

1. Personnel/Stipend	\$125,154.00
2. Travel	\$75,000.00
3. Other (Explain Below)	\$0.00
Briefly Explain Other Costs	
TOTAL PARTNER PARTICIPANT COSTS	\$200,154.00

B. OTHER DIRECT COSTS

1. Equipment	\$747,206.26
2. Materials and Supplies	\$25,000.00
3. Publication Costs/Documentation/Dissemination	\$0.00
4. Consultant Services	\$0.00
5. Other (Explain Below)	\$0.00
Briefly Explain Other Costs	
TOTAL OTHER DIRECT COSTS	\$772,206.26

C. TOTAL DIRECT COSTS (A & B)

\$972,360.26

D. COST SHARING (Minimum 10% of C; up to \$50,000)

\$50,000.00

Total Continuation Grant Budget

\$1,022,360.26

Other Notes

The budget submission is for three locations: Russellville ATCC, Paris ATCC, and Ozark Campus. This support will add to Russellville Robotics and Ozark Campus Robotics and Automation programs. The Paris location is adding Machining program.

ATU-Ozark will hire a full-time faculty member to grow the program on the Russellville Campus.

SECTION 5 - SUSTAINABILITY

20 Points

Proposals will include a commitment and detailed plan for sustaining grant activities beyond the twenty-four (24) month continuation period. Equipment requests will clearly specify how purchased equipment will continue to be linked to addressing labor and workforce needs beyond the grant period.

Essential Components:

- Detailed plan for sustaining the program beyond the twenty-four (24) month continuation grant funding period- describe how the work supported by this grant will continue beyond the grant period; outline the roles and funding sources of each partner after the grant period.
- Detailed plan for maintaining communication and sharing resources among all the program partners beyond the twenty-four (24) month funding period;
- Identify availability of long-term resources to maintain and/or repair any equipment requested.
- Describe plan for redistribution of equipment to meet additional workforce needs once the employer needs addressed by the proposal have been satisfied.

	Exemplary	Superior	Adequate	Needs Improvement
Sustainability (20 Pts)	Identifies existing resources to continue the program with no reduction in services at the end of grant funding period. (18–20 Pts)	Identifies significant resources to continue the program with limited reduction in services at the end of grant funding period. (15-17 Pts)	Identifies limited resources to continue the program or proposes significant reduction in services at the end of grant funding period. (11-14 Pts)	New funding sources must be identified for continuation of program at the end of grant funding. (0-10 Pts)

Please enter your answer in the box provided below. Feel free to include any necessary charts, graphs or tables.

Sustaining Program (Existing Resources-ATU-Ozark):

ATU-Ozark has current operational resources dedicated for the Robotics and Machining Programs. The following are current appropriated funding levels based on current enrollment figures:

Ozark	\$217,183
Russellville and Paris	<u>\$104,127</u>
Total Current Operations	<u><u>\$321,310</u></u>

The \$125,154 additional salaries will increase future operational budgets at the end of the two-year period. Increase and growth in the programs will support the absorption of the additional faculty.

Maintaining Communication and Sharing Resources:

All program offerings provided through ATU – Ozark and ATCC maintain a robust relationship with area industries. Program advisory boards are a requirement of all programs assisting with evaluation of faculty, curricula, equipment, and program outcomes annually.

With the addition of the Machining / Robotics / CAD offerings, ATU Ozark will:

Fall 2018	Employee Machining Instructor Convene Machining / robotics/ CAD Advisory Board Convene ATCC advisory board and superintendent's council
Spring 2018	Develop / market noncredit offerings to serve incumbent needs of industry. Market approved degree program in Machining / Robotics / CAD
Fall 2019	Enroll credit and noncredit students into Machining / Robotics / CAD Advisory Board evaluates curricular offering and proposed outcomes. ATCC Advisory Board and Superintendent's Council evaluates curricular offerings and proposed outcomes.
Spring 2020	ATU – Ozark budgets for instructor salary / benefits for 2020 - 2021
Fall 2020	ATU – Ozark fully supports Machining / Robotics / CAD programming.

Arkansas Tech University serves the Ozark Campus and Arkansas Tech Career Center to include satellites through its administrative, academic, and fiscal support services. All curricular offerings beginning at the career center link to stackable credentials up and through the Ozark Campus and the Russellville campus. Student recruitment, advising, financial aid, and student support services are made available to all students across campuses to include satellites.

Arkansas Tech University-Ozark has a Business and Community Outreach Division that maintains regional and statewide industry partner relationships providing services outside the degree seeking aspect of the university. Noncredit training is provided through the Office of Business and

Community Outreach serving Arkansas industries with timely and professional skilled and non-skilled professional development. All resources available through Arkansas Tech University, ATU – Ozark, and Arkansas Tech University Career Center are made available to industry to assist with their training needs.

Utilizing the current and requested resources ATU – Ozark will maintain the established viable programming in machining, robotics, and CAD. Other additional equipment needs required to meet industry recommendations will be supported through the ATU – Ozark / ATCC annual budgets and / or technology monies collected through student fees. Instructor salary monies to establish the initial instruction will be budgeted as a traditional ongoing viable program through the Ozark Campus by the fall of 2020.

Long-term resources:

The University Board of Trustee is presented with a request to transfer reserve funding each fiscal year for future equipment and infrastructure needs. Upon Board adoption, funds are reserved for future needs and use. Arkansas Tech University-Ozark will prioritize reserve funds toward the program as equipment ages and needs replacing.

Redistribution of Equipment:

The plan for redistribution is to ensure that the program meets future employment demands and needs. We suppose that continued needs will mandate that equipment continually be utilized for further training of individuals to meet attrition and natural employment changes. Though there is an initial demand that is higher than anticipated future need, Arkansas Tech University-Ozark foresees the need for new populations of employee pools that are yet realized by natural attrition and employment count changes.

SUBMIT BY JUNE 1, 2018

Email to ADHE.Workforce.Grant@adhe.edu

Applications will only be accepted for projects that were awarded an implementation grant.

CONTINUATION GRANT SCORING RUBRIC

Critical Elements	Exemplary	Superior	Adequate	Needs Improvement	Value
Program Need	Significantly addresses a top 3 workforce need in the region. (18–20 Pts)	Addresses in a more limited way a top 3 workforce need in the region. (15–17 Pts)	Addresses in a limited way a less critical workforce need in the region. (11–14 Pts)	Identified labor need is too narrow or not in a critical area. (0–10 Pts)	20 Pts
Program Plan	Plan addresses all goals and core requirements and properly connects all activities to measurable outcomes that address workforce needs. (22–25 Pts)	Plan addresses most goals and requirements and substantially connects activities to measurable outcomes. (18–21 Pts)	Plan addresses many goals and requirements and connects some activities to measurable outcomes. (14–17 Pts)	Plan lacks significant requirements or connections of activities to measurable outcomes are not clear. (0–13 Pts)	25 Pts
Strength of Partnership	Plan includes broad representation and each partner has a defined role with identified critical contributions. (18–20 Pts)	Plan includes broad representation but partner roles are not clearly defined. (15–17 Pts)	Plan lacks one or two important partners or not all partners are critical to success of the plan. (11–14 Pts)	Partner participation is too narrow or some partners do not contribute meaningfully. (0–10 Pts)	20 Pts
Budget Plan	Plan identifies efficiencies that take full advantage of existing human and physical resources and all requested resources clearly support the goals of the plan. (13–15 Pts)	Plan includes significant efficiencies from existing resources and all requested resources clearly support the goals of the plan. (10–12 Pts)	Plan includes limited efficiencies from existing resources or includes some questionable resource requests. (7–9 Pts)	Budget includes limited or no existing resources from partners or includes requests deemed unnecessary. (0–6 Pts)	15 Pts
Sustainability	Identifies existing resources to continue the program with no reduction in services at the end of grant funding period (18–20 Pts)	Identifies significant resources to continue the program with limited reduction in services at the end of grant funding period (15–17 Pts)	Identifies limited resources to continue the program or proposes significant reduction in services at the end of grant funding period (11–14 Pts)	New funding sources must be identified for continuation of program at the end of grant funding. (0–10 Pts)	20 Pts
Total Points Possible					100 Pts

Arkansas Tech University-Ozark Campus
Act 1131 of 2015 Regional Workforce Continuation Grant Application
INDUSTRY LETTERS OF SUPPORT



Bruce Sikes
Chancellor
1700 Helberg Lane
Arkansas Tech University - Ozark Campus
Ozark, AR 72949

Dear Mr. Sikes:

I am writing to express my support for the Continuation phase of the Regional Workforce Grant Program, to further expand and support the Automation Technology program recently implemented at the Arkansas Tech Career Center (ATCC) in Russellville and also at the new Tyson Foods Logan County Career Center in Paris, and the numerous High schools they serve.

This program is a great stepping stone to achieving a pipeline of skilled workers to operate and maintain the automated equipment in today's manufacturing environment. We were excited to see not only the new lab environments but also to see that students are now moving through this program, as it can be a recruiting ground for industries like ours and the start of an educational and career pathway for our region.

Sincerely,

Louisa Daniels
Manager of Training and Government Affairs
Green Bay Packaging
Arkansas Kraft Division
Office: 501-354-9295

Vire Control Systems, LLC
8166 Highway 103
Clarksville, AR 72830
Phone: 479.705.8473
Email: info@virecontrols.com



May 29, 2018

Bruce Sikes
Chancellor
1700 Helberg Lane
Arkansas Tech University – Ozark Campus
Ozark, AR 72949

Dear Mr. Sikes:

I am writing to express my support for the Continuation phase of the Regional Workforce Grant Program, to further expand and support the Automation Technology program recently implemented at the Arkansas Tech Career Center (ATCC) in Russellville and also at the new Tyson Foods Logan County Career Center in Paris, and the numerous high schools they serve.

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Sincerely,

A handwritten signature in blue ink, appearing to read "John Vire", is written over a horizontal line.

John Vire





Olin Blue Cube Operations LLC
3230 Dow Drive, Russellville, AR 72802
Phone: 479-955-3404 Fax: 479-955-0855

Bruce Sikes
Chancellor
1700 Helberg Lane
Arkansas Tech University - Ozark Campus
Ozark, AR 72949

Dear Mr. Sikes:

I am writing to express my support for the Continuation phase of the Regional Workforce Grant Program, to further expand and support the Automation Technology program recently implemented at the Arkansas Tech Career Center (ATCC) in Russellville and also at the new Tyson Foods Logan County Career Center in Paris, and the numerous high schools they serve.

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Sincerely,

Rodney Adams
Maintenance Field Planner
Olin
Blue Cube Operations, LLC®
3230 Dow Dr.
Russellville Ar. 72802
Office (479) 967-4299
Cell (479) 495-0453

Bridgestone Americas Tube Business

2700 East Main
PO Box 10730
Russellville, AR 72812

Mr. Bruce Sikes
Chancellor
1700 Helberg Lane
Arkansas Tech University – Ozark Campus
Ozark, AR 72949

Dear Mr. Sikes:

I am writing to express my support for the Continuation phase of the Regional Workforce Grant Program, to further expand and support the Automation Technology program recently implemented at the Arkansas Tech Career Center (ATCC) in Russellville and also at the new Tyson Foods Logan County Career Center in Paris, and the numerous high schools they serve.

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Sincerely,



Rick W. Smith
Maintenance/Engineering Manager
Office: 479.964.0226
Cell: 479.880.6503



POWERTRAIN

Core Powder Metal Group
AAM- Powertrain
615 West Walnut
Paris, Arkansas 72855
(479) 963-2105

May 30, 2018

Bruce Sikes
Chancellor
1700 Helberg Lane
Arkansas Tech University - Ozark Campus
Ozark, AR 72949

Dear Mr. Sikes:

I am writing to express my support for the Continuation phase of the Regional Workforce Grant Program, to further expand and support the Automation Technology program recently implemented at the Arkansas Tech Career Center (ATCC) in Russellville and also at the new Tyson Foods Logan County Career Center in Paris, and the numerous high schools they serve.

This program is a great stepping stone to achieving a pipeline of skilled workers to operate and maintain the automated equipment in today's manufacturing environment. We were excited to see not only the new lab environments but also to see that students are now moving through this program, as it can be a recruiting ground for industries like ours and the start of an educational and career pathway for our region.

Highest regards,



John Brandt
Managing Director, Core Powder Metal Group
AAM- Powertrain

615 West Walnut, Paris, AR, 72855

www.bbtt.com