

**Act 1131 of 2015**  
**Regional Workforce Continuation Grant**

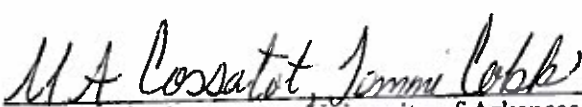
**APPLICATION COVER SHEET**

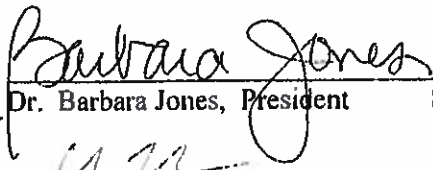
*DUE JUNE 1, 2018*


<b>To:</b>	Arkansas Department of Higher Education
<b>Requesting Institution:</b>	University of Arkansas Cossatot
<b>Title of Project:</b>	Regional Advanced Manufacturing Partnership (RAMP) Grant
<b>Project Partners:</b>	1. University of Arkansas Cossatot, De Queen, AR 2. University of Arkansas Hope-Texarkana, Hope, AR 3. SAU Tech, Camden, AR 4. South Arkansas Community College, El Dorado, AR
<b>Requested Budget:</b>	\$1,084,642.42
<b>Date Submitted:</b>	May 30, 2018
<b>Applicant Contact:</b>	Contact Name: Tommi D. Cobb, RAMP Coordinator
<b>Applicant's Information:</b>	UA Cossatot 183 College Drive De Queen, AR 71832 Phone: 870-584-1158, 870-584-4471 Email: <a href="mailto:tcobb@ccccua.edu">tcobb@ccccua.edu</a>

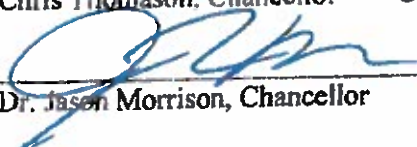
**Authorized Signatures for Institution: Southwest Arkansas Community College Consortium (SWACCC)**

**SWACCC MEMBERS:**

  
Lead Institution University of Arkansas Cossatot Dr. Steve Cole, Chancellor

 5/29/18  
Dr. Barbara Jones, President South Ark CC

  
Chris Thomason, Chancellor UA Hope, Texarkana

  
Dr. Jason Morrison, Chancellor SAU Tech

## 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](mailto: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)



**Regional Advanced Manufacturing Partnership  
R.A.M.P. - Building the Pipeline**

**Continuation Grant Proposal**

**From: Southwest Arkansas Community College Consortium-SWACCC  
Submitted by: UA Cossatot, Lead Institution  
Tommi Cobb, RAMP Director  
Friday, June 1, 2018**

## **Regional Advanced Manufacturing Partnership: Building The Pipeline:**

Southwest Arkansas is a socio-economically depressed region mostly comprised of rural areas and small towns with a wealth of natural resources and a diverse economy. The Southwest Arkansas Planning and Development District (SWAPDD) serves 12 contiguous counties and 64 municipalities located in the southwest corner of the state. The District serves a population of over 241,000 residents and includes five municipalities with a population of 10,000 or more.

### ***Unemployment and Poverty in the Region:***

December 2017 regional unemployment records reported an average of 4.16%, with the highest rate found in Nevada County (5.2%) and the lowest in Howard County (3.0%).

The potential for thriving, productive communities is evident, however, the economics of the region don't reflect a workforce that is ready to transform that potential into reality. Arkansas's overall poverty rate is at 17.2%. The Southwest Arkansas Workforce Development Area (WDA) is the largest workforce area in the state in terms of counties represented. The median average of the poverty level is at 20.4% with Nevada County showing a rate of 30.8% and Dallas County at 14.7%.

<https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

The agriculture / forestry sector accounts for 3.4% of all employment in the State of Arkansas, and accounts for 11.6% of employment in Lafayette County, 8.9% of employment in Howard County, and 8.8% of employment in Calhoun County. Lumber production is closely tied to the construction industry, and a decline in housing production nationwide over the past 5 years has led directly to a decrease in employment in these counties, and decreased employment opportunities inevitably leads to loss of population.

<https://www.dws.arkansas.gov/wp-content/uploads/2017/08/Southwest-AR-LWDA-Plan-PY16-19.pdf>

### ***Industries in SW Arkansas:***

As stated in the Southwest Arkansas Workforce Development Regional/Local Plans, 2016-2019, the SWAPDD has a strong manufacturing sector. It is home to eleven Fortune 500 companies and employment in manufacturing accounts for 22.3% of all employment in the SWAPDD area. Manufacturing employs the highest percent of workers in the southwest and is higher than the state level of 11.95%. There is also a larger percentage of workers in the southwest employed in the agriculture, forestry, fishing and hunting industries than at the state level. <https://www.dws.arkansas.gov/wp-content/uploads/2017/08/Southwest-AR-LWDA-Plan-PY16-19.pdf>

Almost 4000 people in the southwestern region, near Ashdown and De Queen, are employed by six major companies in various industries such as poultry, timber, pulp and paper processing, and the production of outdoor lawn care equipment. Timber and lumber production are important to this region, as well.

The Mid-South region, which includes Hope and Texarkana, has a presence of poultry and timber production as well as the SWEPCO-Turk plant. This new plant is a coal-fired, high tech facility that needs trained and skilled workers to operate the facilities.

Union County industries are focused on the production and refinement of chemicals and petroleum, as well as pulp, paper, timber, energy production, and waste disposal.

The Highland Industrial Park in Camden, AR, is home to numerous aerospace and defense contractors, Raytheon, General Dynamics, and Lockheed Martin, just to name a few. These businesses employ several thousand people. El Dorado AR, is home to many facilities that process petroleum products, chemicals, as well as a new, state-of-the-art, sawmill complex.

### ***Projected Industry Growth And Workforce Needs:***

The Southwest Region is projecting an additional 4,141 (4.48%) jobs from 2012 – 2022. Manufacturing expects a projected employment increase of 170 (+.89%) while, the trades, transportation, and utilities companies expect a growth of up to 572 (+3.66%). Top occupations by Southwest LDWA industries places truck transportation in third. Specific employment in the areas of drivers, bus and truck mechanics as well as diesel engine specialists will be in need.

<https://www.dws.arkansas.gov/wpcontent/uploads/2017/08/Southwest-AR-LWDA-Plan-PY16-19.pdf>

The publication, *Career Watch Arkansas*, (2017) documents an expected number of trained specialists needed to fill the following job positions: Diesel, bus, and truck engine specialists (128), chemical engineers, chemical equipment operators, plant and systems operators, and chemical technicians (66), CNC tool programmers, metal and plastic (12), electrical and electronics repairers for commercial and industrial equipment, electrical engineers, electricians (280), HVAC (114), industrial engineering technicians, industrial engineers, industrial machinery mechanics, industrial production managers (388), Milling and planning machine setters, operators, multiple machine tool setters, operators and tenders (31), structural metal fabricators, welders, cutters, solderers and braziers plus machine setters, operators, and tenders (381), for a total of 1,286 potential job openings. (2017, pg 28-46).

Conifex Timber Inc., a Canada-based forestry and sawmilling company, will re-start a state-of-the-art sawmill complex, formerly owned by Georgia Pacific, in El Dorado, Arkansas. Primarily engaged in the manufacturing of structural grade Spruce Pine Fir dimension lumber, the company plans to modernize the existing facility and create a state-of-the-art mill in El Dorado producing 180 million board feet initially. The company expects to create approximately 120 new, full-time jobs as a result of its approximate \$80 million commitment to the facility.

Chemtura is making an approximately \$5 million investment, in a new pilot plant. This plant is part of Chemtura's ongoing commitment to innovation and new product development production, and bringing more jobs to SW Arkansas. The new pilot plant will be utilized not only by Great Lakes Solutions, but also by other Chemtura businesses. The pilot plant will be a modern, newly constructed, state-of-the-art, flexible facility that will occupy a footprint of approximately 11,000 square feet. Included in this footprint will be space for operating bays, a laboratory, and associated equipment. The new facility will employ 10 people total, with six of those positions being new to the El Dorado Great Lakes Solutions sites.

### ***Education's Role in Workforce Development:***

The Regional Advanced Manufacturing Partnership, RAMP Grant, began with the planning stage, in 2015, then quickly moved into the implementation phase in 2016. The last two years has found the Southwest Arkansas Community College Consortium (SWACCC) busily applying actions to go along with the words of the plan. New programs have been implemented, and already-established programs have been fortified with equipment upgrades, knowledgeable and well-qualified instructors to facilitate these programs, recruiting activities, and awareness events for younger grade levels. The steady growth in the numbers of high school students who are participating in RAMP targeted secondary programs, and then, continuing their post-secondary education towards certification or degree awards in industrial manufacturing career fields, speaks to the hard work and commitment that the consortium has applied to meet the goals of the RAMP programs.

Employability skills are a universal challenge facing today's educators, the workforce, and SW Arkansas industries. Drilling down to identify the missing components in employability skills was the focus of many meetings during the planning stages of RAMP. These findings were helpful in allowing the understanding of present skills gaps in the curriculum of secondary education and the relevance to workforce development and readiness. Three main components were found to be lacking across the board in secondary education:

- 8<sup>th</sup> through 10<sup>th</sup> grade skills development strategy



- Strategy to deliver information technology (digital literacy) and advanced manufacturing skills to 11<sup>th</sup> and 12<sup>th</sup> graders
- 8<sup>th</sup> through 12<sup>th</sup> grade utilization of available curriculum to develop and maintain soft skills for future employability.

The Implementation phase of the RAMP grant allowed the consortium to develop programs that would incorporate teaching and training to these identified and much needed skillsets.

The consortium members each chose a targeted program or area of study to focus on and use RAMP Implementation funds to develop and grow. The programs, Industrial Technology, UA Cossatot, Industrial Maintenance/CNC, UAHT, Production/Manufacturing/CPT, SAU Tech, and Mechatronics/Processing Technology SouthArk, were established. The colleges worked with their area high schools to develop curriculum, provide professional development for instructors, and also committed to scheduling that would make it possible for high school students to take advantage of the course offerings.

The importance of taking the grant work from the implementation phase to the next level via the continuation grant is reinforced by the goals contained in the state's Close the Gap 2020 Master Plan for Higher Education in Arkansas. (DRAFT Arkansas WIOA Combined State Plan, p 38) The State Workforce Plan showcases the reality of wage capability in relation to education level achieved in Arkansas.

**Chart of Wage Capacity in Relation to Level of Education**

Wage Capability Comparison	H.S. Diploma	No HS Diploma	Bachelor's Degree	2016 Poverty Guidelines
<i>National Average/ Annual Salary</i>	\$30,400	\$23,400	\$52,000	Household: Of 2= \$16,020 Of 4=\$24,300
<i>Arkansas Annual Salary Earned</i>	\$27,432	\$22,352	\$44,335	

Arkansas' percent of persons age 25+ with a high school diplomas measures at 85.2%. Those persons who are 25+ with a Bachelor's degree is 21.5%. These numbers translate into the fact that 15.7% of Arkansas's population age 25+, does not have a high school diploma and the percentage of those with a Bachelor's degree or higher falls below the US average of 33.4%. The deficit is 11.9%.

<https://www.census.gov/quickfacts/AR>, <https://www.census.gov/newsroom/press-releases/2017/cb17-51.html>

The RAMP strategy will continue to provide educational opportunities and shrink this gap by building upon what has already been set in place within the last two years of the implementation phase. By continuing along the educational pathways that the RAMP consortium has established, first through the planning, then the implementing, and now the continuing of the RAMP grant initiatives in SW Arkansas, we plan to address the challenges of unemployment and lack of education. Working together with regional industry partners, educators, both secondary and post-secondary, and consortium partners, the pipeline will continue to lead students into the skilled trades' arena. We are committed to providing them with the tools they will need in order to emerge into the workforce, well-equipped, qualified, and ready to succeed.

## **SECTION 2 – PROGRAM PLAN**

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 convenings, 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:

	<b>Exemplary</b>	<b>Superior</b>	<b>Adequate</b>	<b>Needs Improvement</b>
<b>Program Plan (25 Pts)</b>	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)

## CONTINUATION TIMELINE: July 1, 2018 – September 1, 2020

The timeline will show a very in-depth, concentrated, effort of all involved over the life of the proposed Continuation Grant: RAMP-Building the Pipeline. This solid plan ensures a steady progression for the activities, equipment purchases, facilitation of instruction, professional development, over the next two years.

### *Detailed Project Timeline and Overview:*

<p style="text-align: center;">July August September Summer 2018</p>	<ul style="list-style-type: none"> <li>• July 1, 2018 – Notification of Continuation Grant Awards</li> <li>• July 17, 2018 – SWACCC Steering Committee Meeting</li> <li>• Young Manufacturer's Academy (SouthArk)</li> <li>• Be Pro Be Proud Truck Visit in conjunction with Young Manufacturer's Academy (SouthArk)</li> <li>• Professional Development for Diesel instructor (UAHT)</li> <li>• July-Radio visits to KDQN and Ed 88 to promote Industrial and Diesel Technology Programs (UA Cossatot)</li> <li>• Technical programs implemented into Kids College Summer Enrichment Program (UAHT)</li> <li>• EMC<sub>2</sub>-Engineering &amp; Manufacturing Camp of Creativity, July 23-27 (targeted to ages 15-17) includes hands on activities with 3D printers, industrial machining, welding, industry tours, guest speakers. (UHAT)</li> <li>• Young Manufacturer's Institute (SouthArk)</li> <li>• Begin ordering classroom equipment- all partners</li> <li>• <i>We Can Summer</i> Program participation. RAMP Coordinator to present Industrial Technology educational pathway awareness program to high school seniors. Sponsored in part by RAMP-Building the Pipeline (UA Cossatot)</li> <li>• Attend registration/recruiting events at feeder schools to spotlight the SAU Tech Career Academy (SAU Tech)</li> <li>• Parent/Industry Open House (SouthArk)</li> </ul>
<p style="text-align: center;">October November December Fall 2018</p>	<ul style="list-style-type: none"> <li>• October 9, 2018 – SWACCC Steering Committee Meeting</li> <li>• Bridge Day (UAHT)</li> <li>• UAHT Advisory Board Meeting with high school representatives invited</li> <li>• Manufacturing Day (SouthArk)</li> <li>• Professional Development-high school faculties NCCER training/concurrent credit/employability skills training (UAHT)</li> <li>• Implementation of Diesel equipment and training (UAHT)</li> <li>• Attend 8<sup>th</sup> Grade Career Day at De Queen Middle School to promote awareness (UA Cossatot)</li> <li>• October Parent/Teacher conferences-attend and recruit for welding program (SAU Tech)</li> <li>• Radio visits to KDQN and Ed 88 to promote Industrial and Diesel Technology programs (UA Cossatot)</li> <li>• November-Attend Family Science Night (SAU Tech)</li> <li>• Young Manufacturer's Institute (SouthArk)</li> </ul>
<p style="text-align: center;">January February March Winter 2019</p>	<ul style="list-style-type: none"> <li>• January 15, 2019 – SWACCC Steering Committee Meeting</li> <li>• Begin GTAS Course on site at high schools: provides NCCER training and employability skills for high school students (UAHT will provide needed equipment and technical program training to local high school)</li> <li>• Continue recruitment activities (SAU Tech)</li> <li>• Recruiting Visits to all partner schools (SouthArk)</li> <li>• Tours of SouthArk's campuses (SouthArk)</li> <li>• Young Manufacturer's Institute (SouthArk)</li> <li>• Diesel Technology Program will be offered to secondary students (UA Cossatot)</li> <li>• Be Pro Be Proud Truck Visits -tentative (UA Cossatot)</li> <li>• Begin preparing students for upcoming Skills USA Competitions in April- (all partners)</li> </ul>

	<ul style="list-style-type: none"> <li>February-Attend Parent/Teacher Conference and recruit for welding program (SAU Tech)</li> <li>SAU Tech students slated to compete in Weldathon (SAU Tech)</li> <li>Student/Parent Night</li> </ul>
April May June Spring 2019	<ul style="list-style-type: none"> <li>Students to compete in Skills USA</li> <li>April 16, 2019 –SWACCC Steering Committee Meeting (agenda to plan for upcoming Interim Report that is due to ADHE on September 1, 2019)</li> <li>SAU Tech students to prepare for Welding Academy final testing</li> <li>Begin enrolling secondary transitioning students into post-secondary Welding Academy-Magnolia (SAU Tech)</li> <li>STEAM (SouthArk)</li> <li>Be Pro Be Proud Truck visit (SouthArk)</li> <li>Young Manufacturer's Institute (SouthArk)</li> </ul>
July August September Summer 2019	<ul style="list-style-type: none"> <li>June 4, 2019 – SWACCC Steering Committee Meeting</li> <li>September 1, 2019 – Interim Report Due to ADHE</li> <li>Continue offering GTAS/NCCER coursework to high school (UAHT)</li> <li>Begin using new diesel equipment in the Diesel Technology Program (UAHT)</li> <li>Young Manufacturer's Academy (SouthArk)</li> <li>Young Manufacturer's Institute (SouthArk)</li> <li>Parent/Industry Open House (SouthArk)</li> <li>Radio visits to KDQN and Ed 88 to promote Industrial and Diesel Technology (UA Cossatot)</li> </ul>
October November December Fall 2019	<ul style="list-style-type: none"> <li>October 15, 2019 – SWACCC Steering Committee Meeting</li> <li>Manufacturing Day (SouthArk)</li> <li>Young Manufacturer's Institute (SouthArk)</li> <li>8th Grade Career Day classroom visits (UA Cossatot)</li> </ul>
January February March Winter 2020	<ul style="list-style-type: none"> <li>January 21, 2020 – SWACCC Steering Committee Meeting</li> <li>Continue offering GTAS/NCCER coursework to high school (UAHT)</li> </ul>
April May June Spring 2020	<ul style="list-style-type: none"> <li>April 14, 2020 – SWACCC Steering Committee Meeting (agenda to plan for upcoming Final Report due to ADHE, September 1, 2020)</li> <li>Visit all partner schools (SouthArk)</li> <li>Tours of SouthArk Campuses (SouthArk)</li> <li>Young Manufacturer's Institute (SouthArk)</li> <li>Student/Parent Night</li> <li>STEAM (SouthArk)</li> <li>Young Manufacturer's Institute (SouthArk)</li> <li>Be Pro Be Proud Truck Visits (UA Cossatot)</li> </ul>
July August September Summer 2020	<ul style="list-style-type: none"> <li>August 1, 2020 – Continuation Award Period Ends</li> <li>September 1, 2020 – Final Report Due to ADHE</li> </ul>

***Program and Educational Pathway Plans:***

Goals of the Continuation Grant include building upon RAMP targeted programs that the consortium partners have been growing over the past two years. These programs have been providing career exploration and applicable coursework at the K-8 level (i.e., Project Lead The Way curriculum). Skills USA curriculum has been meshed with secondary programs (10-12 grades) to include further support of soft skills education. Intensive work has been done with 7-12 grade students in the form recruiting events, on-site visits by college personnel to address students and their parents together about educational and career opportunities, and by using the Arkansas State Chamber of Commerce Be Pro Be Proud Truck site visits to provide hands-on activities in order to spark a dialogue.



Original programs implemented included: Industrial Technology-UA Cossatot, Industrial Maintenance/CNC- UAHT, Production Manufacturing/CPT-SAU Tech, and Industrial Mechatronics/Process Technology, SouthArk. Sustainability of these programs has always been a goal of both the consortium and the Workforce Development grant. At the two- year mark of the implementation grant, partners have re-evaluated their programs and also re-visited aforementioned industry needs to meet demands of the upcoming job market. By doing so, these partners are proposing the development and implementation of additional needs to either fortify existing programs or introduce new programs that will benefit from the RAMP-Building The Pipeline Continuation Grant funding. Therefore, for the purpose of clarity and disclosure, each consortium partner's proposal for their targeted RAMP program, along with their educational pathways toward credentialing, will be independently described on the following pages:

**New Program: University of Arkansas Cossatot  
Diesel Technology (De Queen Campus)**

*The previous RAMP targeted program of Industrial Maintenance Technology that UA Cossatot has been offering for the past two years is deemed 100% sustainable. Thanks to overwhelming response from industry partners, this program will continue to be offered to secondary students and will be totally self-sufficient. Tyson Foods, is leading the effort in this program by reaching out to other companies to help support this secondary Industrial Maintenance Program, designed to satisfy the needs of all local manufacturing and processing facilities in this area. They are responding in kind and are pledging money, resources, and time for this effort.*

*Area schools are absorbing the \$500.00 assessment fee per semester for each of their participating students. Based upon dialogue between industries and secondary schools, we expect approximately 60 students to participate in this program in fall 2018.*

Due to the overwhelming success of the original UA Cossatot, RAMP targeted program, the college was approached by stakeholders to generate a diesel technology program that would fill needed slots that are currently in demand and will continue to grow in the coming years. Along with stakeholder encouragement, the college gleaned survey results from an Employer Needs Survey in our region:

Current Number of Positions in Job Market:	37 local (within 50 mile radius) 382 statewide
Estimate of Local Jobs over next 2 – 5 years	48 local (reflecting average state estimated growth of 2% annually)
Local Salary Range	\$12.00 - \$22.00 per hour
Current employees that would benefit from this program offering	15 companies express need for additional training of potential new-hires

The Diesel Technology Program is slated to begin in fall 2018, and will be offered as an educational opportunity for secondary students in the UA Cossatot Secondary Career Center program, beginning Spring 2019.

- Will be offered on UA Cossatot's De Queen campus (Limited seating)
- Instructor: Mark Kutak
- Student Advisor: Pat Earnest
- UA Cossatot's program will prepare students for entry-level positions in the diesel technician trade in light, medium, and heavy duty applications. Students learn to work on brake systems, drive trains, electric and electronic circuits, hydraulic systems, and diesel engines, all of which are valuable skills for a successful career.
- Graduates from these programs will be trained to serve multiple workforce needs spanning from automotive to farm equipment to heavy truck.

- Hourly pay rates range from \$18-\$35 per./hour based on skill level and experience
- The program will consist of stackable credentials beginning with 4 Certificates of Proficiency in each discipline area, a Technical Certificate that includes each of the four discipline areas leading to an AAS degree in General Technology.
- Diesel Mechanic: Diesel Shop Foreman / Mechanic Shop Foreman, Service Manager, Automotive Mechanic Foreman , Fleet Manager, Trucking & Transportation, Bus or Truck Mechanic, Diesel Engine Specialist, Diesel Shop Foreman / Mechanic Heavy Equipment, Mechanic-Construction Equipment, Mechanic-Mobile Heavy Equipment, Mechanic (except Engines), Machinery, Maintenance Mechanic, Bus or Truck Mechanic, Diesel Engine Specialist-Diesel Technician, Diesel Mechanic-Trucks.

#### **Diesel Technology - Pathway to Credentials –UA Cossatot**

<b>Certificate of Proficiency: Diesel Engines 8 credit hours</b>	
<b>DIES 1008</b>	<b>Diesel Engines</b>
<b>Certificate of Proficiency: Brakes 8 credit hours</b>	
<b>DIES 1018</b>	<b>Brakes</b>
<b>Certificate of Proficiency: Electrical/Electronics 8 credit hours</b>	
<b>DIES 2008</b>	<b>Electrical/Electronics</b>
<b>Certificate of Proficiency: Steering and Suspension 8 credit hours</b>	
<b>DIES 2018</b>	<b>Suspension</b>
<b>Technical Certificate: Diesel Technology 32 credit hours</b>	
<b>GSTD 0103</b>	<b>College Reading (if needed)</b>
<b>GSTD 0243</b>	<b>Essential English (in needed)</b>
<b>DIES 1008</b>	<b>Diesel Engines</b>
<b>DIES 1018</b>	<b>Brakes</b>
<b>DIES 2008</b>	<b>Electrical/Electronics</b>
<b>DIES 2018</b>	<b>Steering and Suspension</b>
<b>DIES 1008 Diesel Engines</b>	This course covers shop tools, special service tools, precision-measuring instruments, shop equipment, and the fundamentals of diesel engine disassembly and assembly.
<b>DIES 1018 Brakes</b>	This course provides instruction in system components and operation and servicing of hydraulic, power-assist, and air brake units. Braking systems, design, purposes, and control devices are studied.
<b>DIES 2008 Electrical/Electronics</b>	This course covers vehicular computers, instrument gauges, instrument panels, power windows, power door locks, power seats, diesel ignition systems, warning devices, and passive restraint systems.
<b>DIES 2018 Steering and Suspension</b>	This course focuses on frame construction, suspension systems, wheel and tires, basic alignment angles, and alignment procedures of heavy-duty vehicles and steering systems. Common problems and corrections of alignment angles and repair and diagnosis of these systems are also covered.

#### **Diesel Technology Program-UA Cossatot GENERAL TECHNOLOGY Associate of Applied Science 60-72 Credits**

#### **PROGRAM INFORMATION:**

In addition to 15 credit hours of academic core courses, students must also complete a minimum of 45 credit hours of Technical core courses with at least 24 credit hours in one concentration area.

**CAREER OPTIONS:** This degree is customizable so that students may ensure employability in their concentration area.

**TRANSFER OPTIONS:** Arkansas Tech University (ATU) to complete a Bachelor of Professional Studies.

Required Academic Core	Hours	Industrial Maintenance Options	40
SPD 1003 Success Strategies	3	MAIN 1204 Industrial Fundamentals	4
ENGL 1113 Composition I	3	MAIN 1504 Basic Electricity	4
MATH 1003 Technical Math (or higher)	3	MAIN 1104 Hydraulics/Pneumatics	4
BUS 1003 Microcomputer Applications	3	MAIN 1004 Mechanical Devices/Systems I	4
Choose 1: HIST/ECON/PSYC/PSCI/SPAN	3	MAIN 2004 Mechanical Devices/Systems II	4
Total Academic Core Requirements:	15	MAIN 2204 Mechanical Devices/Systems III	4
		MAIN 1404 Industrial Motor Controls	4
<b>Automotive Service Technology Options</b>	<b>36</b>	MAIN 2404 Industrial Wiring w/NEC	4
AST 1003 Automotive Brake Systems	3	MAIN 1304 Programmable Logistical Controls	4
AST 1704 Steering and Suspension	4	MAIN 2604 Advanced PLC's w/ Instruments	4
AST 1203 Automotive Electronics I	3		
AST 2204 Automotive Electronics II	3	<b>Welding Options</b>	<b>26</b>
AST 2203 Engine Performance I	3	WELD 1344 Intro to Layout and Fabrication	4
AST 2304 Engine Performance II	4	WELD 2344 Welding I - SMAW	4
AST 1104 Engine Repair	4	WELD 2354 Welding II - SMAW	4
AST 1103 Automotive Climate Control	3	WELD 2367 Welding III - MIG	7
AST 2504 Manual Drive Train & Axles	4	WELD IV - TIG	7
AST Automatic Transmission /Transaxle	4		
		<b>Pipe Welding</b>	<b>32</b>
<b>Diesel Technology Options</b>	<b>32</b>	PIPE 2108 SMAW	8
DISL 1008 Diesel Engines	8	PIPE 2104 GMAW-Carbon Steel Pipe	4
DISL 1018 Brakes	8	PIPE 2204 FCAW	4
DISL 2008 Electrical/Electronics	8	PIPE 2304 GTAW-Carbon Steel Pipe	4
DISL Steering and Suspension	8	PIPE 2404 GTAW-Low Alloy & Stainless Steel	4
		PIPE 2208 SMAW-Stainless Steel	8
<b>Cosmetology Options</b>	<b>40</b>		
COS 1116 Cosmetology (Fall)	16		
COS 1216 Cosmetology (Spring)	16		
COS 2008 Cosmetology (Summer)	8		

**Continuation of Original RAMP Program: SAU Tech  
Production/Manufacturing/Certified Production Technician\***

\*With increased focus on a welding educational pathway

*SAU Tech will continue to provide educational pathways in the area of Industrial Technology. Located in the middle of the Highland Industrial Park, SAU Tech and industry partners have a strong line of communication and a close working relationship.*

*Based upon dialogue between these industry stakeholders and the college, students who are proficient and highly skilled in the welding genre are highly desirable and sought after within the Highland Industrial Park as well as the surrounding region. SAU-Tech, to date, has had 100% acceptance of their students who attend the Secondary Career Academy welding classes into the post-secondary Welding Academy.*

*Therefore, SAU-Tech will refocus a bit and include more welding opportunities within the program for secondary students.*

- The program will be offered to high school students. (11<sup>th</sup> -12<sup>th</sup>).
- Students will become proficient in the use of the welding machines, lathes, and plasma cutters thus increasing employability in the advanced manufacturing workforce.

- Secondary students will complete coursework in career preparation assessment and receive Career Readiness Certifications.
- Other areas of education will include forklift operations and CNC training. Once completed, students will gain a Certificate of Proficiency in Welding, OSHA 10 certification, MSSC and NCCER certification.
- Students will compete in Skills USA Competitions. Those who are awarded the Gold level status will receive a full scholarship to any 2-year college in the state and compete nationally in Louisville, KY.
- Upon completing high school, students who participated in the Career Academy for Welding and maintained a B average throughout, will be awarded a concurrent scholarship from SAU Tech. These scholarships can be applied to tuition and fees at the SAU Tech Welding Academy in Magnolia, AR. To date, SAU Tech has enjoyed a 100% acceptance rate for secondary students who are transitioning to post-secondary educational pathways. The life of the scholarship is two semesters.

**Pathway to Credentials: SAU TECH**  
**Welding Pathway Addition to Production/Manufacturing**  
**Certified Production Technician**

<b>Certificate of Proficiency</b>	
<b>9 credit hours</b>	
MD 1303	Basic Welding
MD 1323	Intermediate Welding
MD 1343	Advanced Welding
<b>Technical Certificate: Welding</b>	
<b>30 credit hours</b>	
WA 1005	Welding Processes
WA 1015	Structural Welding
WA 1025	Pipe Welding
WA 2005	Pipe Welding II
WA 2015	High Frequency TIG & Pipeline Welding
WA 2025	Capstone

- Post-secondary students can continue gaining credits towards an Associate of Science in Welding Process Specialist degree by completing a year of general education courses. The student also has the option to pursue and Associate of Science in Industrial Sciences and Technology degree.
  - Students can transfer credits to SAU Magnolia to complete a Bachelor of Science degree in Engineering Physics (Welding Engineering Technology Option).

**Course Descriptions:**

MD1303 Basic Welding	Upon completion of this course, student will have the ability to identify and set up oxyacetylene, Arc, MIG and TIG equipment. The student will develop manipulative skills in forming and controlling the puddle with oxy-acetylene.
MD 1323 Intermediate Welding	This course will cover the lighter aspects of TIG and Plasmas along with the more difficult aspects of SMAW and Oxy-Acetylene. Upon completion, the student will have a broader knowledge of basic welding and a better understanding of advanced welding techniques.
MD 1343 Advanced Welding	Upon completion of this course, the student will have the ability to identify and set up pipe in the 1G and 1% positions. The student will gain practical experience in pipe welding practices.

**Continuation of Original RAMP Program: University of Arkansas Hope/Texarkana  
Industrial Maintenance Multi-craft CNC/Machining\***

**\*With new optional educational pathway towards Diesel Technology**

*UAHT will continue to offer the Industrial Maintenance Multi-craft program for Arkansas High students on the UAHT campus in Texarkana, AR, as well as the Machining program at Hope High School. The program continues to thrive and remains a vital component of coursework that is offered to secondary students.*

*Area industry partners have expressed a need for better-trained, potential, new hires to come through the educational pipeline for jobs in the Diesel Mechanics related job fields. Based on demand, and encouragement from key stakeholders, UAHT will be adding Diesel Technology into secondary program rotation for students who attend the Hope campus, thus giving further opportunities for those students to have multiple choices when it comes to their educational/career pathways. They will be able to pursue either a certificate of proficiency in CNC Multi-Craft or a certificate of proficiency in Basic Diesel. During a recent program review carried out by industry specialists, it was determined that UAHT's current diesel program had many areas in which training needed improvement and equipment upgrades were necessary to become more progressive and thorough within the scope of diesel technology instruction.*

*Below is the educational pathway that leads students to certification in various areas that encompass the Diesel Program, as well as Industrial Maintenance Multi-craft CNC/Machining.*

**Pathway to Credentials: UA Hope-Texarkana  
Diesel Program Degree Plan\***

<b>Certificate of Proficiency-Chassis Systems (14 credits)</b>	
DIES1004 Basic Diesel Shop	4
DIES2005 Suspension and Steering	5
DIES2215 Troubleshooting and Inspection OR	5
<b>Certificate of Proficiency-Brakes/Power Train Systems (14 credits)</b>	
DIES2025 Brakes and Hydraulics	5
DIES2105 Clutches and Power Trains	5
DIES2204 Air Conditioning OR	4
<b>Certificate of Proficiency-Engine Systems (12 credits)</b>	
DIES1104 Engine Systems	4
DIES1204 Diesel Engines	4
DIES1004 Basic Diesel Shop OR	4
<b>Certificate of Proficiency-Electrical Systems (12 credits)</b>	
DIES1304 Fuel Systems	4
DIES1404 Electrical Systems	4
DIES1414 Diesel Electronics	4

**Industrial Maintenance Degree Plan-UAHT\***

<b>Certificate of Proficiency in Industrial Maintenance Technology-Machining</b>	
INMT 1003 Blueprint Reading	
MACH 1003 Intro to Machine Processing	
MACH 1215 Basic Lathe Operations	
WELD 1003 Basic Welding	
<b>Total credit hours:</b>	<b>14</b>
<b>Technical Certificate in Industrial Maintenance Technology</b>	



GTAS 1113 General Tool and Safety	
MACH 1003 Introduction to Machine Processing	
INMT 1003 Blueprint Reading	
MACH 1215 Basic Lathe Operations	
WELD 1003 Basic Welding	
MACH 1403 Intro to CNC Processes	
INMT 1404 Mechanical Systems and Devices	
MACH 1315 Basic Knee Mill Operations	
WELD 1302 Metallurgy	
<b>Total credit hours:</b>	<b>30</b>

\*Credit hours earned from these courses can be applied to the Associate of Applied Sciences in General Technology, UAHT.

*Objectives and outcomes for the coursework:*

- The student will successfully demonstrate the ability to do arithmetic, read various types of measuring devices, perform calculations and convert fractions, decimals, and percentages, convert metric and standard units of measure, and solve basic geometry problems.
- The student will successfully demonstrate the ability to recognize and identify various basic hand and power tools and their proper uses in the trades, visually determine if tools are safe to use, safely use hand and power tools.
- The student will successfully demonstrate the ability to recognize and identify basic construction drawing terms, components, and symbols, relate information on construction drawings to actual locations on the print, recognize different classifications of construction drawings to actual locations on the print, and interpret and use drawing dimensions
- The student will successfully demonstrate the ability to explain the role of an employee in industry, demonstrate critical thinking skills and the ability to solve problems using those skills, demonstrate knowledge of computer systems and explain common uses for computers in the construction industry, define effective relationship skills, and recognize workplace issues such as sexual harassment, stress, and substance abuse
- The student will successfully demonstrate the ability to define a load, establish a pre-task plan prior to moving a load, use proper materials-handling equipment for the task, and recognize hazards and follow safety procedures required for materials handling.

**Continuation of Original Program: SouthArk Community College, El Dorado, AR  
Mechatronics (Industrial and Process Technology)**

*SouthArk's program will continue to focus on advanced manufacturing in the areas of Industrial Technology and Process Technology. The program will continue to be offered to secondary students.*

- Students will have the opportunity to earn 12 credit hours towards a certificate or degree while still in high school. This will allow them to complete an additional 15 credit hours as a post-secondary student, thus earning a certificate or degree within 18 months of high school graduation.
- MSSC CPT outcomes will be incorporated into the secondary Industrial technology courses, thus providing another opportunity to earn industry- recognized, nationally accredited, stackable, portable, credentials.
- SouthArk will expand its existing career pathways to include career exploration and applicable coursework at the K-8 level (i.e. Project Lead the Way).

- Develop or modify the 9-12 career pathway in the advanced manufacturing/engineering sectors for the better-skilled, better-trained workforce needed in this region.

**Pathway to Credentials: South Arkansas Community College  
Industrial Mechatronics-Process Technology**

**Certificate of Proficiency**

<b>FIRST SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
MECH 1003	Fundamentals of Mechatronics	3
MECH 1404	Fundamentals of Electricity and Electronics	4
MECH 1203	Industrial Safety <b>OR</b>	3
PTEC 1123	Safety Health and the Environment	
MATH 1073	Technical Math <b>OR</b>	3
MATH 1023	College Algebra	
CSCI 1003	Computer and Information Processing	3
<b>CP Credit Hour Total</b>		<b>16</b>

**Industrial Technology – Mechatronics  
Technical Certificate**

<b>FIRST SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
MECH 1003	Fundamentals of Mechatronics & Industrial Maintenance	3
MECH 1404	Fundamentals of Electricity and Electronics	4
MECH 1203	Industrial Safety <b>OR</b>	3
PTEC 1123	Safety Health and the Environment	
MATH 1073	Technical Math <b>OR</b>	3
MATH 1023	College Algebra	
CSCI 1003	Computers and Information Processing	3
<b>Credit Hour Total</b>		<b>16</b>
<b>SECOND SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
MECH 1414	Electronics and Electrical Circuits	4
MECH 1604	Fundamentals of Fluid Power	4
MECH 1804	Introduction to Programmable Logic Controllers (PLC's)	4
MECH 1103	Electrical Drawings	3
<b>Semester Credit Hour Total</b>		<b>15</b>
<b>TC CREDIT HOUR TOTAL</b>		<b>31</b>

**INDUSTRIAL TECHNOLOGY - MECHATRONICS**

**Associate of Applied Science**

<b>FIRST SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
MECH 1003	Fundamentals of Mechatronics	3
MECH 1404	Fundamentals of Electricity and Electronics	4
MECH 1203	Industrial Safety <b>OR</b>	3
PTEC 1123	Safety Health and the Environment	
MATH 1073	Technical Math <b>OR</b>	3
MATH 1023	College Algebra	

CSCI 1003	Computers and Information Processing	3
	<b>Credit Hour Total</b>	<b>16</b>
<b>SECOND SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
MECH 1414	Electronics and Electrical Circuits	4
MECH 1604	Fluid Power	4
MECH 1804	Introduction to Programmable Logic Controllers (PLC's)	4
MECH 1103	Electrical Drawings	3
	<b>Credit Hour Total</b>	<b>15</b>
<b>THIRD SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
MECH 1111	Student to Work Transition	1
MECH 1504	Digital Electronics	4
MECH 1904	Industrial Motor Controls	4
ENGL 1113	Composition I	3
Electives	Social Science (ECON, PSYC, SOC, HIST, PSCI, GEOG)	3+
Electives	Choose three or more credit hours from the list below*	
	<b>Credit Hour Total</b>	<b>15</b>
<b>FOURTH SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
MECH 2803	Industrial Robotics and Robot Programming	3
MECH 2003	Industrial Mechanics & Mechanical Devices	3
ENGL 1123	Composition II OR	3
ENGL 2043	Technical Writing for Industry	
Electives	Social Science (ECON, PSYC, SOC, HIST, PSCI, GEOG)	3
Electives	Choose three or more credit hours from the list below*	3+
	<b>Credit Hour Total</b>	<b>15</b>
	<b>AAS CREDIT HOUR TOTAL</b>	<b>61</b>

### **MECH 1003 FUNDAMENTALS OF MECHATRONICS & INDUSTRIAL MAINTENANCE**

This course covers basic maintenance fundamentals for industrial System technology. Topics include tools used within the industrial Equipment/millwright industry; proper used of fasteners and anchors; and gasket and O-ring maintenance.

### **MECH 1103 ELECTRICAL DRAWINGS**

The student will learn to read and interpret blueprints commonly found in the industrial maintenance settings. Topics include blueprint layout, symbols, projections, dimensions, tolerances, clearances, assembly, and bill of material.

### **MECH 1111 STUDENT TO WORK TRANSITION**

This course explores the elements involved as students prepare to transition from school to the workplace. The course includes soft skills training such as employment search skills, job application submission, and resume writing. Interview skills, personal portfolio development, and workplace ethics are also covered. Interpersonal and communication skills are stressed.

### **MECH 1203 INDUSTRIAL SAFETY**

An introductory course dealing with methods and programs utilized by industry to prevent injury and fatalities. This course covers mandatory safety training, interpretation of warning labels and signs, OSHA, industrial hazards and how to avoid them. This course also emphasizes personal responsibility for safety. Other topics include crane and hoisting equipment, chain and wire rope slings, machine guarding, electrical hazards, low- and high-pressure boiler safety, hydraulic/pneumatic system safety procedures, and equipment lock-out procedures.

### **MECH 1404 FUNDAMENTALS OF ELECTRICITY & ELECTRONICS**

Introduces the student to the National Electrical Code and its application in designing and installing electrical circuits, selecting wiring materials and devices, and choosing wiring methods. Includes electrical safety, terminology,

interpretation of electrical symbols used in construction blueprints, branch circuit layout, over-current protection, conductor sizing, grounding, GFCI and AFCI protection, tool usage, and material/device selection

#### **MECH 1414 ELECTRONICS & ELECTRICAL CIRCUITS**

Provides fundamentals of single- and three-phase alternating current including parallel circuits, resistance, inductance, capacitance, switching, fusing, current requirements, transformer applications, and motor controls. Covers the basics of mechanical and electrical installations, emphasizes tool use and material selection and electrical troubleshooting diagnosis and repair.

#### **MECH 1504 DIGITAL CIRCUIT TECHNOLOGY**

This course is designed to introduce students to the fundamental concepts encountered in digital electronics. Both classroom and lab instruction will be utilized. Topic covered include numbering systems and codes used in digital circuits, basic logic gates, encoders and decoders, flip-flops, counters, and registers.

#### **MECH 1604 FLUID POWER**

(HYD/PNEU) Course is designed to present the basic theory and application of hydraulic and pneumatic components and systems in an industrial environment. Basic and advanced hydraulics and pneumatics, safety, and troubleshooting will be the main topics.

#### **MECH 1804 INTRODUCTION to PLC**

The course is designed to provide the student with instruction about the internal structure, principles of operation, programming techniques, and maintenance & Operation of Programmable Logic Controllers (PLCs) for industrial applications. Troubleshooting and programming experiments are performed in the lab. The student will write PLC programs that cause real-world equipment to function according to industry standards. The student will wire control devices such as limit switches, solenoid valves, timers, photo-sensors, three-phase motors, and captive sensors.

#### **MECH 1904 INDUSTRIAL MOTORS AND CONTROLS**

Course covers electrical tools, instruments and safety, industrial electrical symbols, and line diagrams, theory to logic as applied to line diagrams, AC manual contractors and motor starter, magnetic solenoids, AC/DC contactors and magnetic motor starters, time delay logic and complex control circuits, control devices, reversing circuits applied to single phase, three phase and DC motors, electro-mechanical and solid state relays, AC reduced voltage starters, accelerating and decelerating methods and circuits, preventive maintenance, and troubleshooting.

#### **MECH 2003 INDUSTRIAL MECHANICS & MECHANICAL DEVICES**

This course will cover industrial rigging and equipment installation; preventive and predictive maintenance; proper selection and care of lubrication; various pumps and turbine, and bearings used throughout the industry.

#### **MECH 2203 PLC APPLICATIONS**

This course is a continuation of Introduction to Programmable Logic Controllers and involves the interfacing of devices such as variable frequency drives, transducers, and PID controls. The course includes advanced arithmetic functions and digital and analog inputs as well as outputs. PLC troubleshooting techniques will be introduced.

#### **MECH 2803 INDUSTRIAL ROBOTICS AND ROBOT PROGRAMMING**

MECH 1804. The course uses a team approach to introduce students the basics of operating industrial robots. The course teaches how robots move (locomotion and kinematics), how they sense (perception), and how they reason about their environment (planning). Lecture information is tied to lab experiments and sessions. Students are exposed to robotics related career options in the manufacturing and other industries

### **South Arkansas Community College PROCESS TECHNOLOGY**

#### **Technical Certificate**

<b>FIRST SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
PTEC 1113	Introduction to Process Technology	3

PTEC 1123	Safety, Health and the Environment	3
PTEC 1133	Process Instrumentation I	3
PHYS 1004/L	Physical Science/Lab	4
MATH 1023	College Algebra <b>OR</b>	3
MATH 1073	Technical Mathematics	
<b>Credit Hour Total</b>		<b>16</b>

<b>SECOND SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
ENGL 1113	Composition I	3
CSCI 1003	Computers and Information Processing	3
PTEC 1244	Process Technology I – Equipment	4
PTEC 1253	Principles of Quality	3
CHEM 1004/L	College Chemistry Principles/Lab <b>OR</b>	4
CHEM 1024/L	Chemistry I for Science/Lab	
<b>Credit Hour Total</b>		<b>17</b>
<b>TC Credit Hour Total</b>		<b>33</b>

## **PROCESS TECHNOLOGY**

### **Associate of Applied Science Degree**

<b>FIRST SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
PTEC 1113	Introduction to Process Technology	3
PTEC 1123	Safety, Health and the Environment	3
PTEC 1133	Process Instrumentation I	3
PHYS 1004/L	Physical Science/Lab	4
MATH 1023	College Algebra* <b>OR</b>	3
MATH 1073	Technical Mathematics	
<b>Credit Hour Total</b>		<b>16</b>
<b>SECOND SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
ENGL 1113	Composition I	3
CSCI 1003	Computers and Information Processing	3
PTEC 1244	Process Technology I – Equipment	4
PTEC 1253	Principles of Quality	3
CHEM 1004/L	College Chemistry Principles/Lab <b>OR</b>	4
CHEM 1024/L	Chemistry I for Science/Lab	
<b>Credit Hour Total</b>		<b>17</b>
<b>THIRD SEMESTER</b>		
<b>COURSE #</b>	<b>COURSE NAME</b>	<b>CREDIT HOUR</b>
ENGL 1123	Composition II <b>OR</b>	3
ENGL 2043	Technical Writing for Industry	
PTEC 2364	Process Technology II – Systems	4
Elective	Social Science/Economics Elective	3
Elective	PTEC/MECH /WELD Restricted Elective <b>OR</b> Internship	3/4
<b>Credit Hour Total</b>		<b>13/14</b>



FOURTH SEMESTER		
COURSE #	COURSE NAME	CREDIT HOUR
PTEC 2474	Process Technology III – Unit Operations	4
PTEC 2484	Process Trouble Shooting	4
PTEC 2333	Process Instrumentation II	3
Elective	PTEC/MECH /WELD Restricted Elective OR Internship	3/4
	<b>Credit Hour Total</b>	<b>14/15</b>
	<b>PROGRAM CREDIT HOUR TOTAL</b>	<b>60/62</b>

#### **PTEC 1113 INTRODUCTION TO PROCESS TECHNOLOGY**

This is the introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations; plant organizations; plant process and utility systems; and the physical and mental requirements of the process technician. The student will relate an overview of a typical process plant; identify process equipment; state the purpose of equipment; describe safety, health, and environmental components; and describe the roles, responsibilities, and work environment.

#### **PTEC 1123 SAFETY, HEALTH AND THE ENVIRONMENT**

This course covers the development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis is placed on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues. Students will list components of a typical plant safety and environmental program; describe the role of a process technician in relation to safety, health, and environment; and identify and describe safety, health, and environmental equipment uses.

#### **PTEC 1133 PROCESS INSTRUMENTATION I**

This course is the study of instruments and instrument systems used in chemical processing industry, including terminology, primary variables, symbols, control loops, and basic troubleshooting. Students will identify and explain the function of instruments used in the chemical processing industry; explain the relationship of process control elements in a control loop; and define and apply terms and symbols used in instrumentation

#### **PTEC 1244 PROCESS TECHNOLOGY I: EQUIPMENT**

This course provides instruction in the use of common process equipment. The student will identify process equipment components; use appropriate terminology to describe components of process equipment; describe basic functions of process equipment; and relate scientific principles associated with process equipment.

#### **PTEC 1253 PRINCIPLES OF QUALITY**

This is the study of the background and application of quality concepts. Topics include team skills, quality tools, economics and continuous improvement. Students will define terms associated with quality systems; demonstrate team skills; and apply principles and tools of quality to process systems.

#### **PTEC 2193 INTERNSHIP I**

This is a basic or intermediate work-based instruction in a local industry that helps students synthesize new knowledge, apply previous knowledge or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty and the work supervisor.

#### **PTEC 2293 INTERNSHIP II**

This is an intermediate or advanced work-based instruction in a local industry that helps students synthesize new knowledge, apply previous knowledge or gain experience managing the workflow. Practical experience is simultaneously related to theory. Direct supervision is provided by the faculty and the work supervisor.

#### **PTEC 2333 PROCESS INSTRUMENTATION II**

This course continues the study of instruments and instrument systems used in the chemical processing industry. Issues relating to troubleshooting, annunciator systems and control systems are addressed. Attention is given to digital control, programmable logic controls, and distributed control systems. Students will become familiar with power supply issues, identifying instrumentation malfunctions, and emergency shutdown procedures.

**PTEC 2364 PROCESS TECHNOLOGY II: SYSTEMS**

This is the study of the interrelation of process equipment and process systems including related scientific principles. Students will arrange process equipment into basic systems; describe the purpose and function of specific process systems; explain how factors affecting process systems are controlled under normal conditions; and recognize abnormal process conditions.

**PTEC 2474 PROCESS TECHNOLOGY III: UNIT OPERATIONS**

This course combines systems into operational processes with emphasis on operations under various conditions. Topics include typical duties of an operator. Students will combine systems into operating processes; describe a process technician's role during plant operations; write operating procedures; and demonstrate application of operating procedures.

**PTEC 2484 PROCESS TROUBLESHOOTING**

This course provides instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause-effect relationships, and reasoning. Students will explain steps in troubleshooting models; demonstrate use of troubleshooting tools; and apply troubleshooting techniques.

**Measurable Objectives:**

Consortium objectives and outcomes are found in the table below:

<b>RAMP Continuation Grant: Proposed Measurable Objectives and Outcomes</b>	
<b>Objectives:</b>	<b>Outcomes:</b>
1. Purchase equipment that will update and modernize programs to enable instructors to spend more time on task with teaching	Purchases will include: <ul style="list-style-type: none"> <li>• Welding equipment</li> <li>• Diesel Technology training equipment</li> <li>• Lathe</li> </ul>
2. Promote and increase awareness of the Advanced Manufacturing and Industrial Technology career pathways and educational programs that are available	Partners will plan and execute 40 recruiting/outreach events. These events will include: <ul style="list-style-type: none"> <li>• Recruiting</li> <li>• Be Pro Be Proud Truck Visits</li> <li>• Parent Nights</li> <li>• Community Open House Events</li> <li>• College/Industry tours</li> </ul>
3. Provide and utilize support services available to assist students through the advanced manufacturing pathways	These services will include: <ul style="list-style-type: none"> <li>• 10-\$500.00 scholarships (to be awarded to students who transition from secondary into post-secondary educational pathways related to RAMP targeted programs)</li> <li>• Scholarship information for the RAMP initiative will be given to local high school career coaches for dissemination of the information</li> </ul>
4. Purchase advertising in Arkansas yearly publications to promote awareness and supply information regarding RAMP targeted programs of consortium partners	Purchase 2 state-wide adds/w information pages in two Arkansas, yearly publications: <ul style="list-style-type: none"> <li>• Arkansas Blueprint: 2019</li> <li>• Arkansas Next: 2020</li> </ul>
5. Increase the number of secondary students who choose to study Industrial Technology,	Increase this number by 35%

Diesel Technology, Process Technology, Industrial Maintenance, during their 11 <sup>th</sup> and 12 <sup>th</sup> grade years	
6. Increase number of portable, nationally recognized credentials among secondary/post-secondary students	Increase this number by 35%
7. Develop or expand articulation agreements for the advanced manufacturing/engineering technology fields with Arkansas colleges and universities to allow upward mobility in education, employability and income	Increase the number of articulation agreements with Arkansas colleges by one: <ul style="list-style-type: none"> <li>• in the fields of Industrial Technology and Engineering BS (2+2) programs</li> </ul>

### ***Governance and Accountability Plan:***

Standing members of the Southwest Arkansas Community College Consortium Workforce Governing Board will include the Chancellor or President of each member institution, a workforce development board member from each region, and a chair of the regional industry advisory board. The board will have oversight of the budget and monitor stated goals of the grant. Current steering committee members will continue to serve throughout the continuation phase of the RAMP grant with scheduled meetings at least quarterly, to review progress and monitor budget expenditures. Those who will serve on the steering committee are: Ray Winiecki and Linda Lephiew, SouthArk, Juanita Mitchell, SAU Tech, Laura Clark and Jennifer Bailey, UAHT, Tommi Cobb, Project Coordinator and Ashley Aylett, Vice Chancellor, UA Cossatot.

UA Cossatot will continue to serve as the lead institution for the continuation of the workforce grant-Regional Advanced Manufacturing Partnership: Building the Pipeline. UA Cossatot will continue to employ Tommi Cobb as the RAMP Grant Project Coordinator throughout the tenure of the continuation phase of this grant. The project coordinator, on behalf of the institution, will plan, facilitate, and document steering committee meeting minutes, disseminate all information to the steering committee members as well as the chancellors, presidents of the consortium. The coordinator will be responsible for creating all progress reports, budget alignments, and other documents as requested by ADHE. Also, the coordinator will be responsible for collecting and compiling grant outcomes, manage fiscal resources, secure and share information, and act as liaison between the consortium and ADHE. The project coordinator will report to the governing board as well as members of the project steering committee. She will also ensure that the financial aspects of the grant are met, coordinate reimbursements from the RAMP account to the consortium members as well as distribute monthly account summaries that are issued from the business office. The project coordinator will track programmatic and fiscal progress against grant goals and identify issues related to the achievement of these goals. UA Cossatot policies and procedures will be followed to ensure a structured, organized progression of the continuation phase of the RAMP grant.

The financial management of the project will be handled by UA Cossatot's finance personnel under the direction of Katy Pickens, Grants Accountant. Ms. Pickens handles the financial reporting for several grants for UA Cossatot, including Adult Education, RAMP-Implementation Phase, and Carl Perkins. UA Cossatot has a proven capacity to administer federal and state grants. Financial reporting functions are accomplished through the campus' POISE platform, which is an integrated and comprehensive system that supports data integrity through a multi-level approval protocol. UA Cossatot will comply with Arkansas' financial processes and federal guidelines to enable timely and accurate financial management and reporting.

### ***Articulation:***

The four Consortium colleges offer nine Certificates of Proficiency, which fold into one of four Technical Certificates and, eventually, into one of three AAS degrees—all suitable for occupations in advanced manufacturing. Offering educational and awareness opportunities to younger students, and educating school

counselors, faculty, and parents about the opportunities in today's advanced manufacturing environments can increase the pool of skilled workers with training designed to meet regional industry specifications.

The certificates and degrees offered at the Consortium colleges align with local industry skill requirements for positions that begin at entry-level and move up through mid-level occupations that incorporate STEM-related tasks involving fluid controls, robotics, programming, computer controls, and more. The curriculum of many of these advanced manufacturing credit courses can lead to nationally-recognized, industry based credentials such as the National Center for Construction Education and Research (NCCER) and the Manufacturing Skills Standard Council (MSSC). The programs and courses prepare graduates for positions as machinists, electromechanical technicians (including programmable computer logic and robotics), industrial machinery specialists and chemical process operators and they expose students interested in industrial technology and engineering fields to foundational knowledge in electronics, mechanics, industrial electricity and maintenance, welding, pipe welding, and diesel mechanics.

Three of the colleges, SAU-Tech, UA-Cossatot, and SouthArk, have secondary career centers, offering career technical training to high school juniors and seniors in their county or service area. The Arkansas Department of Career Education (ACE) currently offers manufacturing pathways for students through programs such as Project Lead the Way (PLTW). With PLTW, 7th and 8th grade students can begin taking related advanced manufacturing coursework in subjects such as Engineering Technology Education and Automation & Robotics. Those students can continue along the advanced manufacturing pathway as they enter high school by taking additional coursework approved by ACE. The high school coursework provided by ACE involves programs of study in Advanced Manufacturing, Industrial Equipment Maintenance, and mechatronics. Many will be utilizing the SkillsUSA Professional Development Program material in secondary career center classes. Instruction will include teaching the following skills:

- Communication/listening
- Teamwork
- work preparedness
- Personal integrity
- Time management
- Appropriate work attire/dress practices

Industry has also voiced concern about a lack of basic, general knowledge. SWACCC partners will be incorporating more coursework that includes:

- Basic math skills to enhance the ability to read a tape measure, work with fractions skills and become familiar with both standard and metric measurement as well as solid/liquid measures
- Develop critical thinking skills
- Expanding upon basic computer skills to include the instruction of completing/filing electronic forms, job applications, and evaluations, will familiarize students with the hiring process found within industry/manufacturing HR offices and develop digital literacy and familiarity of environmental terminology
- Working with 3-D printer technology
- Enhanced reading comprehension will supply students with the skills necessary to write a resume, fill out incident reports and understand/complete performance evaluations
- Tool equipment recognition and general terminology recognition within the realm of Industrial/advanced manufacturing

Coupled with coursework in the areas of safety practices per OSHA standards and hands on training in the classroom with actual equipment used in the workplace, students will begin to build a repertoire of knowledge and skillsets in different career fields found throughout SW Arkansas industry/manufacturing.

This high school curriculum builds on previous knowledge and skills as it prepares students to continue along the advanced manufacturing pathway, by enrolling in the two-year college. The next level of

instruction is college coursework in programs such as Process Technology, Diesel Technology, and Industrial Technology-Mechatronics. These programs prepare the students with entry-level knowledge and skills employers are seeking. These programs include internship opportunities with local employers, thus offering students the opportunity to gain additional training.

Students have many opportunities to earn certificates of proficiency that will lead into technical certificates or associate degrees at the post-secondary level. Along with the secondary programs, nationally recognized credentials can be awarded when students complete core curriculum or other full levels of the coursework. Individuals who successfully complete a performance verification will receive a transcript and wallet card. For successful completion of both the written assessment and the corresponding performance verification, individuals will receive a certified plus certificate and Certified Plus wallet card. These stacked credentials from a Secondary Career center or Community College along with the national credentials, will enable students to seek jobs as they work thru their chosen program.

Articulation agreements assist students in their chosen career pathway by assuring the transferability of coursework. In turn, the articulation agreements decrease the time to completion of degrees. In addition, associate to bachelor's degree articulation agreements will allow and encourage upward mobility in employment and income.

The colleges each have an Industrial Technology Certificate program with a common core curriculum. These common core courses are transferrable between the Consortium colleges and can lead to an academic Technical Certificate credential and Associate of Applied Science degrees. The SWACCC colleges has 2+2 articulation agreements with SAU-Magnolia. This will enable students to continue working toward a B.S. in Engineering-Physics, in Supply Chain Management, or Industrial Technology. Some consortium members are currently working with Arkansas Tech-Russellville to obtain another 2+2 articulation agreement to give students another option for a 4 year university.

SWACCC college academic representatives will continue to work with these institutions academic deans or directors to develop or expand upon existing articulation agreements for the advanced manufacturing and engineering technician fields.

### ***Support:***

The SWACCC colleges provide support services to all students. The Consortium colleges currently offer support to students that will include:

- **Scholarships-**
  - UA Cossatot and SouthArk will offer RAMP Scholarships for freshman students who declare the pursuit of technical certifications or AAS degrees in targeted program areas. These scholarships could also be awarded to post-secondary students who participated in secondary career center coursework as a high school student, if they are pursuing RAMP targeted program areas.
  - SAU Tech awards concurrent scholarships to high school students who complete the program while maintaining a B average throughout. This scholarship can be applied towards tuition, books, and fees when the students transition into the post-secondary welding program.
- **Financial Aid Office**-coordinating grants, scholarships, and loans
- **Student Advisors or Coaches-** provide "intrusive advising" to students to aid in degree selection and execution, and "early alert" programs to focus on students who may need special attention to stay on track to course and degree completion
- **Personal and professional counseling**-address students' academic and life needs, as well as soft-skills and career development training
- **Disability Services-** provide reasonable accommodations to students with special challenges
- **Testing and Learning Centers**-offer standardized testing and academic tutoring
- **Student organizations and student activities-** engage students in campus life



- **Concurrent enrollment and secondary career center programs** for area secondary students so that they may earn college credit while still in high school

### ***Role of Equipment Requests:***

#### **UA Cossatot:**

The University of Arkansas Cossatot will purchase the following equipment to start up their Diesel Technology program. With the purchase of these trainers, students will have hands on training that is so important to the enhancement of learning.

- 1-Cascadia tractor/trailer simulator for electrical components
- 1-Cascadia tractor/trailer simulator for dual air brake system
- 1-Cascadia tractor/trailer simulator for dual clutch system
- 10-Electrical Learning Boards
- Various educational training videos
- Industrial Jack with stands

#### **SAU Tech:**

SAU Tech will fortify and enhance the welding component of their RAMP targeted program in an effort to provide more relevant training to today's industry needs. The following purchases are planned:

- Welding machines
- Plasma cutters
- Safety equipment

#### **UA Hope-Texarkana:**

UA Hope-Texarkana has a diesel program that is currently available only to post-secondary students. In a concentrated effort to meet the expressed needs from key industry stakeholders, the proposed equipment purchases will update and progress their diesel program forward in order to provide state of the art equipment, tools, and current education/training for secondary students. Proposed equipment purchases include:

- 1-Freightliner Truck
- Used vehicles for training purposes
- 1-Alignment Lift
- Multiple student tool kits
- Multiple training computers and software
- Multiple Snap-On Multi-meters

#### **SouthArk Community College:**

No equipment is slated to be purchased. Instead, the focus will be on curriculum, student engagement and instruction, recruitment, student support in the form of scholarships, an increased number of awarded credentials and certificates as well as providing professional development for instructors.

### ***Performance Assessment:***

The three main purposes of program assessment are:

1. To improve – the assessment process should provide feedback to determine how the program can be improved.
2. To inform – the assessment process should inform faculty and other decision-makers of the contributions and impact of the program.

3. To support – the assessment process should provide support for campus decision-making activities such as program review and strategic planning, as well as external accountability activities such as accreditation

The proposed outcomes of RAMP: Building The Pipeline is to build a future workforce that possesses education and skillsets that are in high demand from industrial/manufacturing corporations in Southwest Arkansas.

Four relevant, updated, upgraded, targeted programs were developed from the implementation phase of the RAMP Grant. There is still more work to be done as the colleges strive to continue providing the necessary education, training, and certification to satisfy the demands that will be made on the future workforce. With the approval of the continuation proposal, the consortium partners will not skip a beat as they carry on with the work of fortifying, strengthening, and expanding upon RAMP targeted programs. The progress and success of the programs will include the monitoring and reporting of:

- Nationally recognized credentials awarded to secondary participants who satisfactorily complete the core curriculum from NCCER, MSSC, and Work Keys/Career Readiness Certification (CRC) organizations
- Institutional credentials such as certificates of proficiency, technical certificates and associate degrees that are awarded after successful completion of coursework at the community college level

The combination of nationally recognized pocket credentials along with CRC certifications, and educational institutional awards will brand students as highly sought-after, hireable, and sustainable.

Another area of assessment will be in the form of surveys. Participating students will take surveys that will grade the quality of the program, the curriculum, instructor knowledge, equipment, and personal knowledge gained. By gathering quantitative and qualitative information, the consortium will be able to continuously improve the programs based upon student feedback and need.

Finally, since this grant initiative involves school aged students, it would not be feasible to track job obtainment after completion of these secondary programs. The hope is that they will transition right into a college level, skilled trades' curriculum and continue along the pathway to completion at either the certified level, associate or bachelors level of higher education. Therefore, the consortium partners will track students as they enter their respective RAMP targeted programs at the high school level and report on those who transition into their institution as a post-secondary student with plans to continue along those specific educational/career pathways.

### 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:

	<b>Exemplary</b>	<b>Superior</b>	<b>Adequate</b>	<b>Needs Improvement</b>
<b>Strength of Partnership (20 Pts)</b>	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)

#### ***Strength of Partnership:***

As stated in the Workforce Initiative Act Regional Workforce Grant Guidelines, “The primary goal of this program is to create long-term relationships between employers and regional workforce alliances to identify and address the challenge of job candidate skills gaps in the regional workforce pool. By ensuring that post-secondary educational institutions are producing the credentials employers need through consortia and data driven decision-making, Arkansas can meet the needs of current employers and also be more effective in recruiting new industry to the state.”

The SWACCC has engaged employers, secondary career centers, and K-12 partners throughout the planning and implementation grant process. The colleges have actively participated in local, state and national initiatives targeted at educating youth about manufacturing careers in an effort to create a pipeline of skilled workforce to fill new jobs and replace retirees. Consortium partners have hosted high school students for Manufacturing Days, Be Pro Be Proud Truck visits, college campus visits, coordinated career orientation visits between manufacturing representatives and 8th -10<sup>th</sup> grade students, and participated in the Arkansas State Chamber Program-Young Manufacturers Academy for area 7<sup>th</sup> and 8<sup>th</sup> grade students.

In addition, colleges are active participants on the SWAWIB, with employees serving on the board. The colleges have and will continue to work with the SWAPPD/SWAWIB in these endeavors. SAU-Magnolia,

and Arkansas Tech –Russellville, have been familiar and good partners for the colleges to assure the readily transferrable courses and credits for many of the colleges' credit programs. In addition, the SWACCC partners work closely with area chambers of commerce and economic development councils, as well as the Arkansas Economic Development Commission and Arkansas Department of Workforce Services.

***Partners and their Roles in the Alliance:***

The SW Arkansas Community College Consortium has amassed a large, diverse group of educational institutions, industry employers and other key partners to build a potentially powerful force that will drive the future workforce forward. This support system must utilize every opportunity, every person, and every dollar to its fullest potential in its efforts to realize success in this monumental task of building a pipeline downward into secondary levels of education. Communication across the board has been established, solidified, and reinforced.

Recognizing the importance of open communication and the mutual benefits that have been manifested from intentional partnerships, has built a firm foundation for continued collaboration and alignment. The continuation phase will seamlessly carry on the work of closing gaps that exist in the pipeline between education, economic and workforce goals with "a "grow your own strategy" to attract and retain business and talent.

**SWACCC Partners for RAMP: Building the Pipeline:** *The chart compiles all partners into a cohesive group while the text that follows describes individual roles:*

<b>SWACCC Partners</b>	<b>UA Cossatot</b>	<b>SAU-Tech</b>	<b>SouthArk</b>	<b>UACC Hope/ Texarkana*</b>
<b>K-12 Schools Districts</b>	De Queen Nashville Horatio Dierks Foreman Mineral Springs Umpire Murfreesboro Kirby	Camden-Fairview Harmony Grove- Sparkman Bearden Hampton Fordyce Magnolia	El Dorado Junction City Parkers Chapel Smackover M.S. Strong-Huttig Barton Jr. High	Hope Schools Arkansas High, Texarkana AR
<b>Secondary Career Centers</b>	UA Cossatot Secondary Career Center	SAU-Tech	SouthArk Secondary Technical Center	<i>*UAHT does not have a Secondary Career Center, but pledges to continue working with their partnering high schools to deliver courses/training in the advanced manufacturing/engineering areas.</i>
<b>Employers</b>	Domtar Industries Ash Grove Cement Weyerhaeuser Tyson Foods Husqvarna Outdoor Products	Aerojet- Rocketdyne Esterline Defense Technologies General Dynamics Lockheed Martin Spectra NTS Everett Construction	El Dorado Chemical Canfor Conifex Lanxess Georgia Pacific- Crossett Delek	Georgia Pacific Hope Water and Light

<b>Universities</b>	<ul style="list-style-type: none"> <li>• Southern Arkansas University-Magnolia, AR</li> <li>• Arkansas Tech-Russellville, AR</li> </ul>
<b>Other Key Partners</b>	<ul style="list-style-type: none"> <li>• SW Arkansas Planning and Development</li> <li>• SW Arkansas Workforce Investment Board</li> </ul>

1. Community Colleges:

- a) *Lead College*: UA-Cossatot has hired a project director for *RAMP: Building the Pipeline*. Tommi Cobb will continue her responsibilities as director for the SWACCC Partners. The lead institution will communicate regularly with SWACCC members, establish timelines for program outcomes; plan, convene, and document steering committee planning meetings, develop strategies to meet program objectives/outcomes; compile grant outcomes; manage fiscal resources, and secure or share information and technical assistance provided by State of Arkansas as needed by the steering committee. Katy Pickens will continue to provide support as the financial agent for RAMP Continuation grant monies.
- b) *Consortium Colleges*: The four Consortium colleges will provide faculty and staff to serve on the various committees to meet the grant goals. Academic deans and CTE faculty will participate as curriculum experts and be involved in equipment selection. Academic deans and vice-presidents will assure that course additions or changes are made and approved at appropriate levels. College student services personnel will be involved in identifying support services required to support the program initiatives especially as they relate to recruiting, advising, career counseling, and support services.

2. School Districts:

- a) Participating school districts will provide one or more representatives for career pathway and curriculum development, alignment and to serve on other committees. The school districts will assist in providing program information to students and assist colleges with recruitment of interested students for the programs.

3. Employers/Industries:

- a) The industry partners' role will include serving on industry/program advisory committees; developing credit and non-credit curriculum; assisting with equipment selection; teaching as adjunct faculty in the program; providing internship/apprenticeship/observation sites; supporting internship courses through selection and evaluation; donating funds, equipment, tools, or supplies; and hiring qualified graduates.

4. SWAPPD/SWAWIB:

- a) The SW Arkansas Workforce Investment Board (SWAWIB) and Workforce Development Centers will assist in outreach, intake, screening, individual case management, linkage with the colleges for Individual Education Plans (IEPs), and career coaching activities. The local Centers will engage with college student personnel to identify potential recruits. These activities, coupled with strong training and placement strategies, will ensure that participants find jobs for which they are both suited and adequately prepared.

5. Four-Year Universities:

- a) SAU-Magnolia, will assist in curriculum development, recruitment, and articulation of coursework from secondary career center and community colleges to the university industrial technology or engineering programs. Sharing of equipment resources between and among the colleges and universities will be encouraged to assure appropriate training at all levels of post-secondary education.
- b) Arkansas Tech-Russellville, will continue to be pursued for completion of a 2+2 program that will give yet another opportunity for SW Arkansas students to continue along a pathway of



higher education to complete goals. Upon the agreement, this university will work with the consortium to help develop curriculum and articulation of coursework from secondary career thru university level industrial technology or engineering programs.

Commitment is high to work together and create positive outcomes. Stakeholders are paying attention to the seriousness of these challenges and a more collaborative approach is now in place for us to move forward in partnership as a region. All are in agreement that developing an effective strategy driven by data and information, one that is scalable and replicable, efficiently leverages resources and contributes to the overall economic health of the region.

## 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:

	<b>Exemplary</b>	<b>Superior</b>	<b>Adequate</b>	<b>Needs Improvement</b>
<b>Budget Plan (15 Pts)</b>	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***

The proposed budget below, reflects the costs to develop and maintain the many components that will occur during the 2-year continuation grant phase of RAMP: Building the Pipeline.

The RAMP Director, Tommi Cobb, under the employ of UA Cossatot, will receive a salary and fringe benefits during the effective dates of the grant funding. The estimated cost of travel will allow the director to effectively perform her duties in any capacity needed. Whether it be to attend called committee meetings, host/facilitate scheduled symposiums, speaking engagements/presentations or workshops, or attend professional development events directly related to industrial/manufacturing and education in secondary or post-secondary sectors.

Directly related costs will be vital to allow for the implementation of SWACCC plans to bolster curriculum, recruitment/awareness activities, professional development for both secondary and post-secondary faculty, and equipment purchases. Educational software will be purchased, tools, relevant equipment, safety gear, student support in the form of scholarships, and certification testing fees paid by the community college on behalf of students will be offered. Professional development opportunities will inject excitement and interest in industrial technology/teaching.

Large efforts will be made toward creating awareness, educating, stimulating, and encouraging youth to consider pursuing a career in the fields of engineering, chemical /petroleum processing, aviation, industrial maintenance technology, and manufacturing in SW Arkansas. Events such as the AR State Chamber of Commerce sponsored Be Pro Be Proud Truck visits, and special visits to classrooms by industry representatives for Career days, will be held on secondary school campuses. Students will visit community college campuses to attend summer multi-day events like the Young Manufacturers Camp, Career Cluster workshops, and the Young Manufacturers Institute.

Grant funds, coupled with matching in kind funds from industry partners will solidify the consolidated efforts of all involved to work toward a successful change in the landscape of future employees for SW Arkansas industrial manufacturing trades. The SW Arkansas Community College Consortium has amassed over \$80,000.00 in local matching funds to support the proposed budget even further.

A breakdown for each partner's proposed budget is listed first, in order to provide full disclosure of planned expenses. Each institution has budgeted for ¼ or \$250,000.00 each of the potential \$1 million grant award, in order to pursue the development and growth of RAMP targeted programs. The final report is an overall budget plan for the consortium as a whole.

## **INDIVIDUAL BUDGETS FOR CONSORTIUM MEMBERS:**

### **UA COSSATOT**

#### **A. PROGRAM LEADERSHIP SUPPORT COSTS**

1. Personnel/Stipend	151,470.75
2. Travel	500.00
3. Other (Explain Below)	51,786.50*

Briefly Explain Other Costs

<b>TOTAL PARTNER PARTICIPANT COSTS</b>	<b>203,257.25</b>
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#### **B. OTHER DIRECT COSTS**

1. Equipment	42,242.75
2. Materials and Supplies	2000.00
3. Publication Costs/Documentation/Dissemination	\$0.00
4. Consultant Services	\$0.00
5. Other (Explain Below)	\$2000.00**

Briefly Explain Other Costs

<b>TOTAL OTHER DIRECT COSTS</b>	<b>46,742.75</b>
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<b>C. TOTAL DIRECT COSTS (A &amp; B)</b>	<b>250,000.00</b>
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<b>D. COST SHARING (Minimum 10% of C; up to \$50,000)</b>	<b>55,049.00***</b>
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<b>Total Continuation Grant Budget for UA Cossatot:</b>	<b>\$305,049.00*</b>
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#### **Notes:**

\* A.1- Fringe for instructor, advisor, and RAMP Grant Coordinator

#### **\*\*B.5 (other)**

- \$2000.00 allotted for scholarships to attend UA Cossatot. Will be awarded in 500.00 increments.

#### **\*\*\*In-Kind Cost Sharing-**

Office rental/utilities for RAMP Coordinator	\$13,824.00
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Salary/fringe for Diesel Technology Student Advisor	\$41,225.00
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(Will be gleaned from Secondary Career Center Funds)	<b>Total: \$55,049.00</b>
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**SAU-TECH:****A. PROGRAM LEADERSHIP SUPPORT COSTS**

1. Personnel/Stipend	\$120,741.75
2. Travel	\$10,000.00
3. Other (Explain Below)	\$9,258.25*
Briefly Explain Other Costs	
<b>TOTAL PARTNER PARTICIPANT COSTS</b>	<b>\$140,000.00</b>

**B. OTHER DIRECT COSTS**

1. Equipment	\$76,400.00
2. Materials and Supplies	\$20,000.00
3. Publication Costs/Documentation/Dissemination	\$10,000.00
4. Consultant Services	\$0.00
5. Other (Explain Below)	\$3600.00*
Briefly Explain Other Costs	
<b>TOTAL OTHER DIRECT COSTS</b>	<b>\$110,000.00</b>

**C. TOTAL DIRECT COSTS (A & B)**

\$250,000.00

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

\$0.00

**Total Continuation Grant Budget: SAU-TECH**

\$250,000.00

**Notes:**

**\*A.3:** Fringe for RAMP Director

**\*\*B5: (other)**

- Professional development for instructor:
  - \$600.00 - OSHA 10 Safety Training (SAU Training Site)
  - \$2000.00 - OSHA 10 Train the Trainer (SAU Training Site)
- Student Support:
  - \$500.00 – OSHA 10 cards for students: 500 cards @ \$10 ea. (Y1)
  - \$500.00 – OSHA 10 cards for students: 500 cards @ \$10 ea. (Y2)

**SOUTHARK:****A. PROGRAM LEADERSHIP SUPPORT COSTS**

1. Personnel/Stipend	\$157,955.97
2. Travel	\$5,500.00
3. Other (Explain Below)	\$ 51,585.45*
Briefly Explain Other Costs	
<b>TOTAL PARTNER PARTICIPANT COSTS</b>	<b>\$215,041.42</b>

**B. OTHER DIRECT COSTS**

1. Equipment	\$0.00
2. Materials and Supplies	\$8,000.00
3. Publication Costs/Documentation/Dissemination	\$800.00
4. Consultant Services	\$0.00
5. Other (Explain Below)	\$26,000.00**
Briefly Explain Other Costs	
<b>TOTAL OTHER DIRECT COSTS</b>	<b>\$34,800.00</b>

**C. TOTAL DIRECT COSTS (A & B)** **\$249,841.42**

**D. COST SHARING (Minimum 10% of C; up to \$50,000)** **\$29,752.00\*\*\***

**Total Continuation Grant Budget: SouthArk** **\$279,593.42**

**Notes:**

**\*A-3:** The funds (\$8,000.00) are for STEAM attendee stipends and instructor stipends

**\*\*B-5:** The funds (\$20,000.00) will be used for support of STEAM, Young Manufacturers Academy and Young Manufacturers Institute events. The remaining funds (\$6000.00) are for 12 \$500.00 scholarships for Technical students to continue with post-secondary education coursework for Mechatronics or Process Technology

**\*\*\* In-Kind Cost Sharing :**

Office/classroom space rental/utilities	\$7,500.00
Secondary Tech Center HS student tuition waivers	\$10,752.00
Donated supplies from industry	\$6,000.00
Industry volunteer presenters	\$5,500.00
<b>Total :</b>	<b>\$29,752.00</b>

**UA HOPE-TEXARKANA****A. PROGRAM LEADERSHIP SUPPORT COSTS**

1. Personnel/Stipend	54,115.75
2. Travel	7,114.00
3. Other (Explain Below)	9,258.25*
Briefly Explain Other Costs	
<b>TOTAL PARTNER PARTICIPANT COSTS</b>	<b>70,488.00</b>

**B. OTHER DIRECT COSTS**

1. Equipment	152,012.00
2. Materials and Supplies	15,000.00
3. Publication Costs/Documentation/Dissemination	\$0.00
4. Consultant Services	\$0.00
5. Other (Explain Below)	12,500.00**
Briefly Explain Other Costs	
<b>TOTAL OTHER DIRECT COSTS</b>	<b>179,512.00</b>

**C. TOTAL DIRECT COSTS (A & B)****250,000.00****D. COST SHARING (Minimum 10% of C; up to \$50,000)****\$0.00****Total Continuation Grant Budget: UA Hope  
Texarkana****250,000.00****Notes:****\*A: 3 (other)**

- \$9,258.25 – Fringe for RAMP Director

**\*\* B: 5 (other)**

- \$10,000.00 – classroom upgrades
- \$2,500.00 – Professional Development for instructors



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.

<b>Requesting Institution:</b>	UA Cossatot /Southwest Arkansas Community College Consortium (SWACCC)
<b>Title of Project:</b>	RAMP: Building The Pipeline-Continuation Grant

#### A. PROGRAM LEADERSHIP SUPPORT COSTS

1. Personnel/Stipend	\$493,542.47
2. Travel	\$23,114.00
3. Other (Explain Below)	\$112,630.20*
Briefly Explain Other Costs	
<b>TOTAL PARTNER PARTICIPANT COSTS</b>	<b>\$629,286.67</b>

#### B. OTHER DIRECT COSTS

1. Equipment	\$270,654.75
2. Materials and Supplies	\$45,000.00
3. Publication Costs/Documentation/Dissemination	\$10,800.00
4. Consultant Services	\$0.00
5. Other (Explain Below)	\$44,100.00**
Briefly Explain Other Costs	
<b>TOTAL OTHER DIRECT COSTS</b>	<b>\$370,554.75</b>

#### C. TOTAL DIRECT COSTS (A & B)

\$999,841.42

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

\$84,801.00\*\*\*

#### Total Continuation Grant Budget

\$1,084,642.42

*A-3: (other) Fringe for RAMP Coordinator, instructors, and advisors	112,630.20
**B-5: (other) Student scholarships	8,000.00
Student Support- OSHA card fees for student	1,000.00
Professional Development for Instructors	5,100.00
STEAM, Young Manufacturers Academy and Institute Events	20,000.00
Classroom upgrades	10,000.00
<b>Total:</b>	<b>\$156,730.20</b>
<b>***In-Kind Cost Sharing:</b>	
Office, classroom space rental/utilities	\$ 21,324.00
Salary/fringe for student advisor (SCC funds)	\$41,225.00
Student Waivers	\$10,752.00
Donated Supplies (from industry)	\$6,000.00
Volunteers (from industry)	\$ 5,500.00
<b>Total:</b>	<b>\$84,801.00</b>

## 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.

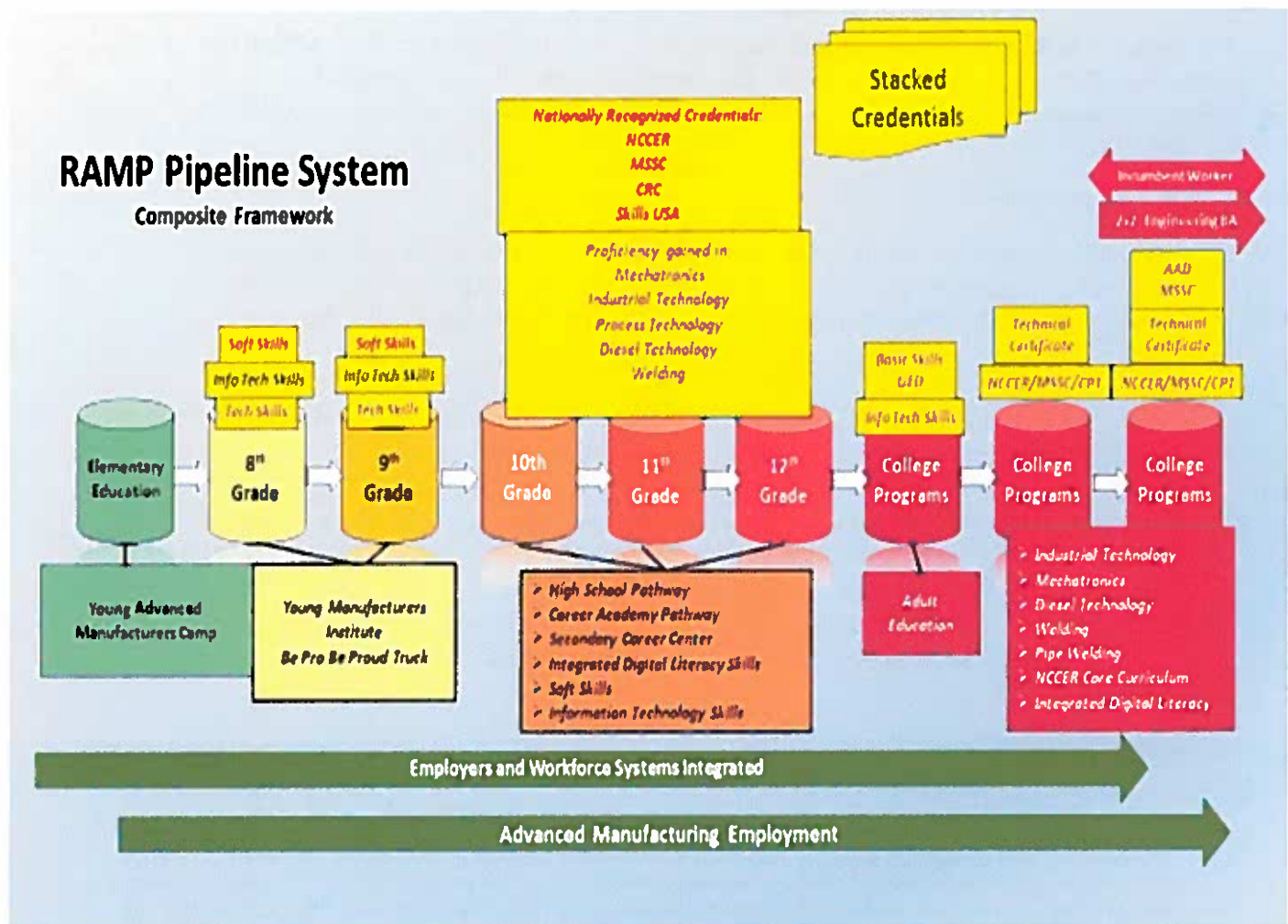
### *Essential Components:*

- 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.

	<b>Exemplary</b>	<b>Superior</b>	<b>Adequate</b>	<b>Needs Improvement</b>
<b>Sustainability (20 Pts)</b>	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.*

## Sustainability:



The RAMP Talent Pipeline System template shows a complete plan, that when implemented, will succeed on many levels. Integrated into this framework are the three main objectives that industry representatives urged SWACCC to focus on to ensure that future employees will meet the standard that today's technology in the workplace requires.

- By reinforcing soft skills, informational technology skills (digital literacy), and industrial technology skills consistently throughout the 8<sup>th</sup> through 12<sup>th</sup> grades and continuing on into the post-secondary educational pathway, future candidates will be stronger and better prepared for job placement.
- The rebranding of industry and manufacturing careers and environments will include community awareness events, recruitment activities, school visits, summer camps, professional development workshops and marketing. Energizing, educating, and stimulating the population of SW Arkansas will change the mindset of a dark and dingy workplace where one performs mundane, rote tasks into a mindset of a modern, challenging, technologically advanced and forward thinking industrial corporation.
- The importance of relationship building, communication, and teamwork will complete the formation of the template. Being consistent in and committed to the work of RAMP: Building the Pipeline will

be key. Educators, Industry employers, and state represented workforce systems combined, will continue to create opportunity for growth, education, and outreach.

Other Objectives and Outcomes for Sustainability in the RAMP Continuation Plan include:

- Design curriculum that develops interest in Skilled and Technical fields beginning with students who are in the process of deciding what pathways to pursue:
  - The adopted curriculum, from programs such as Project Lead the Way (PLTW), SkillsUSA PDP, NCCER Core curriculum development, MSSC, and ACT Work Keys/Career Readiness Certification preparatory tools will remain in place after the fact.
- Provide guidance for students as they make educational/career choices by providing documented data on such things as: earning potential, education required, levels of education available, different pathways to pursue, employment opportunities, and etc.
  - Consortium partners will continue to supply the most up to date, program information to the schools via Career Coaches as they assist students with educational pathways that will impact career choices.
- Supporting Career Coaches that are already in place in the high schools:
  - SWCCC partners will be committed to the continuing utilization of Career Coaches through in-service and professional development activities to ensure updated and relevant information concerning targeted programs.
- Provide educators who can support these programs by instructing both the secondary as well as post-secondary students. Using the same instructor to teach both levels is a critical element in the success of this program by establishing a relationship between secondary and postsecondary education and the attainability of skillsets at both levels while building their level of employability throughout the educational process.
  - Once established, instructors will become full time faculty of their institution
- Provide responsible leadership to direct the SWACCC partners toward their set goals of the RAMP Continuation Grant initiative:
  - Tommi D, Cobb, current director of the RAMP: Building the Pipeline project, will continue in the role of liaison between industry, The SWACCC Governing Board as well as Workforce Development Board, secondary schools and community colleges to ascertain and provide communication, opportunities for growth, and future development of established programs that have stemmed from RAMP grant funds.
  - Katy Pickens, Bookkeeper for the lead institution, UA Cossatot, will remain in place to provide the financial management of the consortium. She will continue to communicate with partners concerning spending, reimbursement, the balancing of accounts, and will provide general oversight of the funds that will be provided through the RAMP Continuation Grant.

***Long-Term Sustainability Plan:***

Beyond the two year mark for the life of the continuation grant, other long-term plans for sustainability of RAMP programs include:

- Recruitment of students at both the secondary and post-secondary levels.
  - The recruitment of students will become the responsibility of each department with the assistance of Student Services personnel. Many of these students will have already been identified as potential skilled and technical science prospects
  - Recruiting events will continue to be expanded upon year after year, to continue providing professional development, career awareness, and education for secondary students. By utilizing

no-cost resources that are available, such as Arkansas State Chamber of Commerce sponsored tools in the form of the Be Pro, Be Proud Truck, their interactive website, and the accessible planning resources to host Young Manufacturer Academies each summer, successful and effective engagement in area communities will be accomplished.

- Steering Committee members of the SWACCC, will continue to remain in contact beyond 2020 to share best practices, collaborate on joint projects involving RAMP targeted programs.
- Targeted programs will become sustainable by revenue that is generated from tuition and fees at the post-secondary level. Industry partners will be invited to support the programs on many different levels such as participating in an advisory role, volunteering time, financial support, equipment/tool donations or mentoring. Local school districts will also be encouraged to support the programs as well by donating space on their campuses, recruiting students to participate in the secondary skilled trades' coursework offerings, and offering financial support by way of providing student waivers for fees that are accrued for national accreditation assessments.
- The revenue base that is generated from the self-sufficient programs will be used to expand tool rooms, purchase new equipment, and pay for the maintenance and upkeep of equipment that will be purchased from RAMP funds. It is expected that the equipment purchased with workforce funding will remain with the consortium colleges for as many years as the equipment stays current with the technology of the day.
- Vesting by industry partners will continue to be another source of financial support for these programs. The consortium partners will continue to listen and have dialogue with industry stakeholders to provide for their needs as they strive to meet the demands of their industries. The success of the RAMP targeted-programs will act as a model for which to base future interactions and partnerships so that these programs can become solid, supported, and relevant beyond August 1, 2020.

#### ***Sustenance Through Communication:***

Knowing that communication, in all of its forms, is a major component to the success of any endeavor, the following forms of communication will be utilized as a part of the Continuation Phase:

- Quarterly meetings will be held throughout the two year timeline and forward with the appointed Steering Committee, Consortium member Chancellors and Presidents, and the project director. Steering Committee meeting minutes will be taken, typed, and disbursed to each steering committee member, and their chancellor, president, immediately after each quarterly meeting.
- Various meetings will be planned and attended that will include other partners from industry, secondary and post-secondary education, representatives from the SWACCC, Arkansas Workforce Development and Investment Boards throughout the two-year continuation phase and forward. These meetings will serve to keep everyone up to date on the progress of the program and discuss any issues, successes, and revisions that might need to be addressed.
- The RAMP Director will be responsible for the organizing, storing, and disseminating of information that will flow between the director and the appointed consortium partners, who will be responsible for individual college records.
- Katy Pickens, Bookkeeper for the lead college, UA Cossatot, will be responsible for summarizing monthly accounts, disbursing reimbursement checks, keeping record of expenditures throughout the life of the grant. She will also be responsible for disseminating monthly budget tables and other financial information that is generated from the Continuation grant activities.
- Teleconference calling will be utilized frequently to lessen the need for travel between the consortium partner locations as the needs of the continuation phase are met. This method was used often during

the implementation phase with great success while at the same time cutting down the costs on travel and the added stress of juggling many heavy schedules during peak times of work on the individual level.

- Emailing, texting, and one-on-one site visits will round out the communication scenario that will support and strengthen the sustainability of RAMP established programs.
- Each consortium partner will complete a monthly review of their target program and send to the RAMP Director. By collecting these monthly reports, it will make the production of each 6-month progress report due to ADHE, easier and less time consuming.

## SUBMIT BY JUNE 1, 2018

Email to [ADHE.Workforce.Grant@adhe.edu](mailto: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
<b>Program Need</b>	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
<b>Program Plan</b>	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
<b>Strength of Partnership</b>	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
<b>Budget Plan</b>	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
<b>Sustainability</b>	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
<b>Total Points Possible</b>					<b>100 Pts</b>

## Appendix

### Letters of resource required for Continuation Grant Submission

#### Regional Advanced Manufacturing Partnership: Building the Pipeline

1. Letters of Support :
  - a) Arkansas State Senator, Larry R. Teague
  - b) District 4 Representative, DeAnn Vaught
2. Southwest Arkansas Industry Support:
  - a) Domtar, Ashdown AR
  - b) Tyson Foods, Nashville, AR
  - c) El Dorado Chemical, El Dorado, AR
  - d) Husqvarna Group, Nashville, AR (2)
3. Southwest Arkansas School District Support:
  - a) Horatio Public Schools
  - b) Parkers Chapel Schools
  - c) Strong-Huttig Schools
  - d) Texarkana Arkansas School District
4. Letters to support Matching Funds:
  - a) University of Arkansas, Cossatot, De Queen, AR



LARRY TEAGUE

SENATOR  
10TH DISTRICT  
OFFICE: 870-845-5303  
larry.teague@senate.ar.gov

POST OFFICE BOX 903  
NASHVILLE, ARKANSAS 71852



THE SENATE  
STATE OF ARKANSAS

CHAIR:  
JOINT BUDGET

VICE-CHAIR:  
REVENUE AND TAXATION

MEMBER:  
LEGISLATIVE COUNCIL  
RULES, RESOLUTIONS AND MEMORIALS  
JOINT RETIREMENT AND SOCIAL SECURITY  
INSURANCE AND COMMERCE

May 18, 2018

Dr. Maria Markham, Director  
Arkansas Department of Higher Education  
423 Main Street  
Little Rock, Arkansas 72201

Dear Dr. Markham:

Please accept this letter in support of the University of Arkansas Cossatot as it applies for Phase Two of the Regional Advanced Manufacturing Partnership (RAMP) Grant: "Building the Pipeline" through the Arkansas Department of Higher Education.

It is my understanding Phase Two of the RAMP Grant will allow UA Cossatot to continue building upon the programs established in Phase One by introducing a new diesel technology program for secondary students at the De Queen campus beginning in the fall. If approved, it will enable the college to purchase equipment, curriculum materials, safety gear and tools, as well as provide salaries for a full-time instructor and student advisor specifically for students who are participating in the skilled and technical sciences. This is an important endeavor to continue the goal of providing relevant industry training and education to Southwest Arkansas' future workforce, and I support the request.

Thank you for your time and attention in this matter. Respectfully, I would ask you to give this application every consideration. Please do not hesitate to contact me if I can be of further assistance.

Sincerely,

A handwritten signature in blue ink that reads "Larry R. Teague".

Larry R. Teague  
State Senator  
District 10

LRT:em



STATE OF ARKANSAS

# House of Representatives

## REPRESENTATIVE

DeAnn Vaught  
266 Dairy Road  
Horatio, Arkansas 71842-8904

870-832-2638 Business  
deann.vaught@arkansashouse.org

## DISTRICT 4

### Counties:

Little River  
Pettit  
Pettit  
Pettit

## COMMITTEES:

Education  
Kindergarten through Twelve,  
Vocational Technical Institutions  
Subcommittee

Insurance and Commerce  
Insurance Subcommittee

### Rules

Chairperson,  
House Management

Joint Budget

May 17, 2018

Ms. Maria Markham Director  
Arkansas Department of Higher Education  
423 Main Street, Suite 400  
Little Rock, AR 72201

Dear Ms. Markham:

I am writing to express my enthusiastic support for the University of Arkansas Cossatot's application for Phase Two of the Advanced Manufacturing Partnership Grant-RAMP: Building The Pipeline proposal that is being submitted to the Arkansas Department of Higher Education.

Phase Two, the continuation grant, will allow UA Cossatot to continue building upon established programs provided by Phase One by introducing a new program for secondary students that will begin this fall. Diesel Technology will be offered on the De Queen campus to secondary students.

If awarded, these funds will enable the college to purchase equipment, curriculum, safety gear, tools, and provide salaries for a full time instructor and a student advisor specifically for secondary students who are participating in our skilled and technical sciences.

I offer my unconditional support for the proposal, and I ask that you give this application every possible consideration. If I can assist in any way, please do not hesitate to contact me.

Sincerely,

DeAnn Vaught  
State Representative  
District 4

DV/sc

Domtar  
Ashdown Mill  
285 Highway 71 South  
Ashdown, AR 71822  
Tel (870) 898-2711



May 15, 2018

RE: Workforce Planning Grant Partnership

To Whom It May Concern:

I am pleased to submit this letter of support on behalf of the Domtar Ashdown Mill in support of Cossatot Community College of the University of Arkansas (UA Cossatot) for the Workforce Initiative Act of 2015 Regional Workforce Planning Grant application. By receiving these funds, the College will be able to develop well-defined and conveyed career pathways from high school to community college to university. Additionally, the college will focus on recruitment and career awareness activities as well as teacher and counselor education.

UA Cossatot has had a long-standing commitment to ongoing development and strengthening of our community's workforce by providing opportunities for those needing employment education opportunities to gain competence in skill areas and knowledge for entry into the global workforce. In addition, they have shown a strong commitment to supporting the needs of employers, like Domtar, as well as providing leadership for economic development activities to enhance employment opportunities within its service area.

Domtar has a strong and active working relationship with UA Cossatot, and we are pleased to support the College's endeavor to ensure a flow of the qualified workers needed for our business to thrive and grow. We will be glad to assist with the grant by providing feedback on the needs of the service area and how the program can best address those needs.

Your consideration of their timely grant request is appreciated.

Sincerely,

Tammy Waters  
Manager, Communications & Govt. Relations

May 14<sup>th</sup>, 2018

To Whom It May Concern:

Tyson Foods, Nashville, AR Facility supports Cossatot Community College of the University of Arkansas (UA Cossatot) in the Workforce Initiative Act of 2015 Regional Workforce Planning Grant application. Approval of the requested grant funds will enable the College develop well defined and articulated career pathways from high school to community college to university. Additionally, the college will focus on recruitment and career awareness activities as well as teacher and counselor education.

UA Cossatot has had a long standing commitment to ongoing development and strengthening of our community's workforce by providing opportunities for those needing employment education to gain competence in skill areas and knowledge for entry into the global workforce, supporting the needs of employers, and leadership for economic development activities to enhance employment opportunities within its service area.

{insert company name} is pleased to support the College's endeavor to ensure a flow of the qualified workers needed for our business to thrive and grow. We at {insert company name} will assist with the grant by providing feedback on the needs of the service area and how the program can best address those needs. We will also give consideration to program completers as we fill vacancies.

Best Regards,

A handwritten signature in black ink, appearing to read "Tem Gunter", written in a cursive style.

Tem Gunter  
Complex HR Manager



May 31, 2018

To whom it may concern:

South Arkansas Community College has been a valued partner over the past two years providing excellent job candidates to local industries through their "Building the Pipeline project". Through this program local industries have benefitted from the pool of applicants provided by programs such as Process Technology (PTEC). Graduates from these programs have been some of the top applicants for employment by local facilities like El Dorado Chemical. The skills learned in this program have allowed the students to be well prepared for jobs in industrial settings. The students have hands on knowledge of industrial operations and equipment. The "Building the Pipeline project" has provided a platform for a partnership between South Arkansas Community College and El Dorado Chemical. We at El Dorado Chemical Company look forward to growing this partnership through great programs provided by the Regional Advanced Manufacturing Partnership.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Ragan", is written over a horizontal line.

Ryan Ragan

Quality Control/ Technical Manager

El Dorado Chemical Company

May 14, 2018

To Whom It May Concern:

Husqvarna supports Cossatot Community College of the University of Arkansas (UA Cossatot) in the Workforce Initiative Act of 2015 Regional Workforce Planning Grant application. Approval of the requested grant funds will enable the College develop well defined and articulated career pathways from high school to community college to university. Additionally, the college will focus on recruitment and career awareness activities as well as teacher and counselor education.

UA Cossatot has had a long standing commitment to ongoing development and strengthening of our community's workforce by providing opportunities for those needing employment education to gain competence in skill areas and knowledge for entry into the global workforce, supporting the needs of employers, and leadership for economic development activities to enhance employment opportunities within its service area.

Husqvarna is pleased to support the College's endeavor to ensure a flow of the qualified workers needed for our business to thrive and grow. We at Husqvarna will assist with the grant by providing feedback on the needs of the service area and how the program can best address those needs. We will also give consideration to program completers as we fill vacancies.

Best Regards,



Kristie Skinner  
Human Resources Manager  
Manufacturing and Logistics  
870-845-6793  
[kristie.skinner@husqvarnagroup.com](mailto:kristie.skinner@husqvarnagroup.com)



Husqvarna Forestry Products  
#1 Poulan Drive  
Nashville, AR 71852  
870-845-1234

February 5, 2018

Sandra Shinglear  
Texas Workforce Commission  
c/o Workforce Solutions Northeast Texas  
911 North Bishop, Bldg A  
Wake Village TX 75501

CC:

Jennifer Bailey,  
Dean of Technical and Industrial Professions

Kaye Cheatham,  
Assistant to the Vice Chancellor of Academics  
WIOA Program Coordinator

Dear Mrs. Shinglear:

This letter of support shows that as an industry/manufacturing partner, we will be actively engaged in the program development of the Industrial Maintenance program at the University of Arkansas at Hope and Texarkana. Our current developments in the forestry products field will require our company to hire individuals who possess a defined skill level.

Our role as a WIOA partner

- Remain engaged with our post-secondary partners
- Provide resources such as supplies and providing work experiences for training purposes
- Interview program completers who qualify for job openings and where appropriate, hire qualified participants who complete specialized training

We will continue to support the developments of the Industrial Maintenance program as they execute the implementation of curriculum, professional development, and equipment with the outcome resulting in students and potential employees who will have competence in specific industrial skill areas that will increase employment opportunities.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jerry Holland'.

Jerry Holland  
Assembly Plant Manager

# Horatio Public Schools

Office of Superintendent  
PO Box 435, Horatio, Arkansas 71842 • (870) 832-1940 • Fax (870) 832-4465  
www.horatiohschools.org

May 24, 2018

Dear Grantor:

This letter of support assures that Horatio Public Schools will be actively committed, engaged and support the work of UA-Cossatot who are undertaking the task of educating and training a young, up and coming, workforce.

The UA-Cossatot's most recent effort to begin a Diesel Technology program is something in which we will be fully committed to.

Our roles as high school partners will be to:

1. Remain engaged with UA-Cossatot in the planning and implementation; and,
2. Provide students the opportunity to partake in UA-Cossatot technical programs.

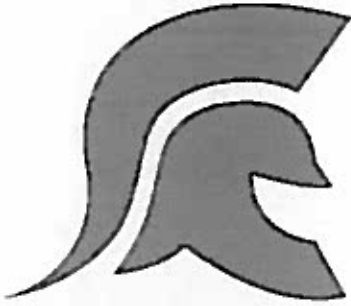
Our involvement in this and other programs will ensure our students will possess workforce skills needed in high demand, high skill, high wage occupations.

Sincerely,



Lee Smith, EdD  
Superintendent  
Horatio Public Schools





## PARKERS CHAPEL SCHOOLS

209 Parkers Chapel Road  
El Dorado, AR 71730

Michael White  
Superintendent  
Phone: 862-4641  
Fax: 881-5012

June Wells  
Curr. Dir/Fed Prg  
Phone: 875-1527  
Fax: 677-3356

Seth Williams  
HS Principal  
Phone: 862-2360  
Fax: 677-3355

Carrie Buisson  
Elem. Principal  
Phone: 862-9767  
Fax: 677-3357

May 29, 2018

To: Ray Winiecki  
Dean of Career and Technical Education  
South Arkansas Community College

Re: Regional Advanced Manufacturing Partnership (RAMP)  
Building the Pipeline Project

Mr. Winiecki,

I would like to express Parkers Chapel's continued support for the RAMP project. Through this program, we are able to continue to provide educational and career opportunities for our students. We will continue to support this project through assisting with student/teacher tours and presentations, and by encouraging our juniors and seniors to attend the Industrial Technology-Mechatronics program at South Ark. We are also looking forward to the introduction of the Process Technology program and hope to be involved with that also. Let me know if there is anything I can do to support you in this endeavor.

Sincerely yours,

Michael J. White  
Superintendent

# Strong-Huttig Public Schools

P. O. Box 735

Strong, Arkansas 71765

Gardner-Strong Elementary

735 S. Concord

(870) 797-2321

Fax: (870) 797-7633

Central Office

108 E. 5th

(870) 797-3040

Fax: (870) 797-3012

Strong High School

635 S. Concord

(870) 797-7322

Fax: (870) 797-2257

May 29, 2018

To Whom It May Concern

This letter is in support of the Regional Advanced Manufacturing Partnership (RAMP) program at South Arkansas Community College. We appreciate the efforts of South Ark to work with our local school and especially our students that attend the vocational programs and work towards a technical certificate.

We look forward to continuing to participate in the program next year. Many of our students obtain this education and then can move directly into the work force when they graduate from high school. If you need any more information, please feel free to contact me at 870-797-7322 or email at [jeff.alphin@strong.scsc.k12.ar.us](mailto:jeff.alphin@strong.scsc.k12.ar.us)

Sincerely



Jeff Alphin

Superintendent



3435 Jefferson Avenue  
Texarkana, Arkansas 71854  
[www.tasds.net](http://www.tasds.net)

**Administration Building**  
(870) 772-3371  
Fax: (870) 773-2602

**Little Business &  
Technology Center**  
(870) 772-3371  
Fax: (870) 772-2047

**ABC Program**  
(870) 773-0995  
Fax: (870) 774-4171

**College Hill Elementary**  
(870) 774-9111  
Fax: (870) 773-0643

**Fairview Elementary**  
(870) 774-9241  
Fax: (870) 774-0236

**Kilpatrick Elementary**  
(870) 774-9691  
Fax: (870) 772-4386

**Trice Elementary**  
(870) 772-8431  
Fax: (870) 773-1492

**Union Elementary**  
(870) 772-7341  
Fax: (870) 772-8017

**College Hill Middle School**  
(870) 772-0281  
Fax: (870) 773-0068

**North Heights Junior High**  
(870) 773-1091  
Fax: (870) 772-2722

**Arkansas High School**  
(870) 774-7641  
Fax: (870) 773-8408

**Washington Academy**  
(870) 772-4792  
Fax: (870) 774-2185

**Career & Technological  
Center**  
(870) 772-3662  
Fax: (870) 772-3267

**Adult Education**  
(870) 774-4414  
Fax: (870) 772-7952

**Athletic Department**  
(870) 774-8532  
Fax: (870) 774-4504

**Food Service  
Maintenance  
Transportation**  
(870) 772-1401  
Fax: (870) 772-6396

**W.T. Daniels  
Special Education  
Gifted and Talented**  
(870) 772-9815  
Fax: (870) 772-1867  
(870) 774-2534  
Fax: (870) 774-8525

March 30, 2018

To Whom It May Concern,

This letter is in support of the Industrial Maintenance program that is offered to our concurrent high school students from Texarkana Arkansas School District. Our students are very fortunate to have received the training and credential for Industrial Maintenance Technician. We have been involved with UAHT and this program for two years. Our students arrive by bus onto their campus and receive the real world education experience. These students learned blue print reading, basic electricity, mechanical devices and general tool and safety. They will be graduating this year with the Certificate of Proficiency.

This program has helped them have some understanding of the skills needed for the technical areas of employment and how to be a good employee. While some students will continue to attend school in order to complete their AAS in General technology, others will have the skills needed to gain entry employment in the workforce.

If I can be of any further assistance,

*Keosha Gulley*

Keosha Gulley  
College and Career Counselor  
Arkansas High School

*Preparing Lifelong Learners For a Changing World*



Monday, May 14, 2018

Dear Granters,

The University of Arkansas Cossatot is committed to providing support in any way to ensure that the newly proposed program of Diesel Technology is successful. This support will be contributed in the following ways:

The office of the RAMP Grant Director is located on the campus of UA Cossatot and incurs a fee of \$576.00 monthly. The total of in-kind matched funding for this space over a two year span equals approximately \$13,824.00

**Office of RAMP Director Rental:** (monthly 16' X 16' office with rental fee @ \$ 2.25 per sq. ft. over two year span:  $256' \times \$2.25 = \$576.00$   $\$576.00 \times 24 = \$13,824.00$  two year rental fee total)

UA Cossatot has gained permission from Dr. Maria Markham, Director of ADHE, to use leveraged funds from the Secondary Career Center budget, and identify those funds as in-kind matching, to pay a portion of an appointed student advisor to support students who are navigating through the RAMP Continuation Grant targeted program of Diesel Technology. Over the upcoming two-year span, the student advisor will work directly with students to generate schedules, coordinate certification testing, and ensure completion of required components of the program so that each participating, secondary student finishes successfully.

**RAMP Student Advisor:** Pat Earnest

Partial salary/fringe covered by in-kind matching funds (SCC)

**Year One: 2018-2019**


**Year Two: 2019-2020**

\$20,409 (15,616 + 4793, fringe)

\$20,816 (15,928 + 4888, fringe)

Matching Support Source:	Amount:
Office Rental for RAMP Director	\$13,824.00 rental cost
RAMP Diesel Technology Student Advisor	\$20,409.00 (\$15,616.00 sal + \$4,793.00 fringe, 2018-19)
Salary/Fringe – Secondary Career Center Funds	\$20,816.00 (\$15,928.00 sal + \$4,888.00 fringe, 2019-20)
<b>TOTAL IN-KIND MATCHING FUNDS</b>	<b>\$55,049.00</b>

Sincerely,



Dr. Steve Cole, Chancellor  
University of Arkansas, Cossatot

*UA Cossatot embraces diversity and is committed to improving the lives of those in our region by providing quality education, outstanding service, and relevant industry training.*

*UA Cossatot Mission Statement*