

Academic Program Review

External Reviewer's Report

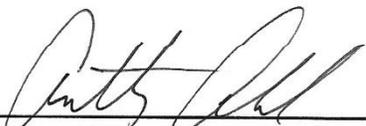


Academic Program Review External Reviewers

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**Phillips Community College of the University of Arkansas
Division of Applied Technology
General Technology Program**

**AAS General Technology
TC Advanced Manufacturing
CP in Advanced Manufacturing
July 2020**


External Reviewer's Signature


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The PCCUA Institutional Program Review can be referenced at the following link.
<https://www.pccua.edu/faculty-staff/adhe-information/program-reviews>

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Lead Reviewer

Anthony Arnold, Industry Reviewer

Anthony Arnold is a lifelong Phillips County resident. He received an A.A. from Phillips Community College of the University of Arkansas and a B.S. in Chemical Engineering from the University of Arkansas in Fayetteville, AR. Currently, he is the site manager for United Initiators, Inc. in Helena, Arkansas. United Initiators is a global manufacturing leader in manufacturing organic peroxides and persulfates. Anthony joined the company in 2013 as a process engineer, assuming the role of site manager in 2014.

Second Reviewer

Bradley Gates, Higher Education Reviewer, Out of State

Bradley Gates holds a B.B.A. from Mississippi State University, a M.A. from the University of Mississippi, and is currently pursuing a Ph.D. in Human Corporation Development from the University of Southern Mississippi. Mr. Gates currently serves as the Workforce Investment Opportunity Act (WIOA) Team Leader at Itawamba Community College's Workforce Development Center where he has been employed for 12 years. The Center meets almost any workforce assessment, training or placement services need and promotes collaboration with agencies and entities to increase the potential for corporate training.

PCCUA Team for the General Technology Program Review/Self Study

- Vicki Cobb, Graphic Communications Instructor-Coordinator Applied Technology
- Linda Killion, Director of Special Projects
- Michael Shaw, General Technology Instructor

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The report prepared by the External Reviewers will be used by the Arkansas Department of Higher Education (ADHE) to verify the student demand and employer need for the program, the appropriateness of the curriculum, and the adequacy of program resources. The report should not include a recommendation to ADHE on program continuation or program deletion.

The External Reviewer's written report must include a summary of each area examined and should provide examples that document the conclusions. The questions below should be used by the reviewers as a guide in preparing the summary for each area. Responses to the questions should not be simply "yes or no".

I. Review of Program Goals, Objectives and Activities

A. Are the intended educational (learning) goals for the program appropriate and assessed?

The General Technology Program at Phillips Community College of the University of Arkansas (PCCUA) has established reasonable goals and objectives through a collaboration of academia and industrial partners. The program is assessed by students each semester and annually by faculty. The program assessment process is explained in detail on page 20 of the Self Study. Assessment results are also listed in Appendix D of the Self Study on Pages 44-48.

Applied Technology Division Mission Statement

In support of the college mission, the purpose of the Division of Applied Technology is to provide quality educational programs consistent with the needs of the community. To accomplish this, the Division:

- Provides career programs to equip students with job skills needed to secure employment
- Provides opportunities to upgrade existing workforce skills
- Encourages effective communication, cultural diversity, social and civic responsibility, analytical and critical thinking, and technology utilization through assessment of students and academic programs
- Stresses the development of skills for life-long learning and meets training needs through:

Business and Industry Training

Customized Training

Professional Development Workshops o Community Education Classes

Along with the mission statements, the division has embraced the five college-wide core competencies that all students should possess upon graduating from PCCUA. The core values established for the division programs are:

- Social and Civic Responsibility: Behavior demonstrates adherence to legal/ethical standards established by society,

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- Technology Utilization: Use tools of the trade to achieve a specific outcome,
- Analytical & Critical Thinking: Modes of reasoning including analyzing data, evaluating alternatives, setting priorities, and predicting outcomes,
- Communication: The interactive process through which there is an exchange of verbal and/or nonverbal information,
- Cultural Awareness: Acknowledgement that society is diverse with groups of individuals possessing differing beliefs, values, attitudes, and customs that are shared from one generation to the next.

The College and program competencies are listed below.

General Technology Core Competencies			
PCCUA Core Competencies	Applied Technology Core	Related Courses	Assessment
Communication Skills The interactive process through which there is an exchange of verbal and/or nonverbal information.	Communication Skills Students will demonstrate the ability to communicate effectively in their chosen discipline using visual and oral	IT 163 IT 1213	Written assignments Classroom and instructor critiques Rubrics
Cultural Awareness Acknowledgement that society is diverse with groups of individuals possessing differing beliefs, values, attitudes, and customs that	Cultural Awareness Students will acknowledge the diversity of groups and demonstrate toward ideas from others.	IT 163	Written assignments Classroom and instructor critiques Rubrics
Analytical and Critical Thinking Modes of reasoning including analyzing data, evaluating alternatives, setting priorities, and predicting outcomes.	Critical Thinking Students will demonstrate ability to identify, analyze, and remediate problems critical to their chosen discipline	IT 113 IT 133 IT 1233 IT 1273	Written assignments Classroom and instructor critiques Rubrics
Social and Civic Responsibility Behavior that demonstrates	Social and Civic Responsibility Students will demonstrate knowledge of ethics and legal issues appropriate to their chosen discipline.	IT 113 IT 163 IT 213 IT 273 IT 1203	Written assignments Classroom and instructor critiques Rubrics

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Technology Utilization Use tools of the trade to achieve a specific outcome.	Technical Skills Students will demonstrate ability to perform technical operations to their chosen discipline.	IT 113 IT 133 IT 213 IT 223 IT 243 IT 1203 IT 1213 IT 1233 IT 1223 IT 1273	Written assignments Classroom and instructor critiques Rubrics
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Division of Applied Technology Core Competencies Assessment Results/Action Plan			Instructor:		
			Course Name and #:	IT 1203 - Introduction to Manufacturing	
			Semester:	Spring 2019	
			Retention Rate:	87.5% (7 of 8 Students) 1 EW	
PCCUA Core Competency	Student Learning Outcome	Assessment Method or Measurement	Assessment Criteria	Assessment Results	Action Plan
Social and Civic Responsibility	Students will understand the history, significant milestones, and	Lab Rubric	70% of the students will score 70% or higher	7 of 8 students completed the course	No action
Technology Utilization	Students will be able to use basic hand and power tools to perform simple	Written Tests	70% of the students will score 70% or higher	7 of 8 Students completed the course	No action

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1) Program Student Learning Outcomes and Activities

The General Technology program is the integration of technology-based systems to improve the design and manufacture of products and processes. The program goal is to help students learn marketable skills to enter the world of manufacturing. Students are trained in fluid power, Programmable Logic Controller troubleshooting, electrical power systems, mechanical drive systems, industrial controls, and HVAC. Welding and basics of blueprint are also offered and are valuable skills for those looking to enter into or advance through the manufacturing industry.

Courses specific to the General Technology degree give more advanced training in specific areas. The overall goal is to train students to gain employment in the numerous industries associated with manufacturing in an ever-changing technological society.

2) General Program Student Learning Outcomes

The AAS In General Technology have five program specific goals.

- To provide university-parallel courses of high academic quality on the freshman and sophomore levels for students who may wish to transfer to senior institutions;
- To provide occupational skills for students who wish to gain competence in employable skills and for employed workers who wish to upgrade their skills or move into another level of employment;
- To prepare students for effective citizenship, personal and community living, whether or not they continue formal education; by including a sound general education base in degree programs and academic and cultural courses outside the area of occupations;
- To provide courses for continuing education for credit or non-credit on a full time or part time basis and a program of community service activities both by 1) sponsoring courses to meet the interests of various groups, and 2) offering its facilities, professional staff, and the specific talents of the students to promote civic and cultural life of the community; and
- To provide students with sound academic advice, guidance and counseling, financial aid, quality student life, and other services not included in instructional programs.

B. How are the faculty and students accomplishing the program's goals and objectives?

The program uses academic, hands-on learning, and student-teacher relationships to develop students into responsible and employable citizens. The program's use of core competencies is good guidance for meeting the objective of preparing students for employment and effective citizenship.

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The General Technology program uses best practices in a variety of ways which help students accomplish their goals. Utilizing guest speakers from industry to inform students of industry certifications and expectations, requiring students to research and analyze current trends and technology, and assigning activities and projects based on world of work experiences. Faculty and students recently worked with a local industry to create a special part needed at the business site. Students utilized skills such as CAD, blue print reading, and welding to complete the project. This is a very specific example of how the program promotes students applying hands on learning to real world experiences.

C. How is the program meeting market /industry demands and/or preparing students for advanced study?

The program instructors collaborate with local industrial partners to identify skill gap deficiencies of the local workforce. Instructors are encouraged to participate in professional development and training in innovative manufacturing technologies to prepare students for experiences beyond the General Technology Program.

Eastern Arkansas has high unemployment rates and high levels of poverty. There are approximately 28 manufacturing related industries in Phillips and Arkansas Counties: 9 in Helena-West Helena and 19 in Arkansas County. There are approximately 3999 job openings in the manufacturing field in Arkansas, Mississippi, and Tennessee. With these kind of job openings, graduates have a great opportunity to find a job. The General Technology program does use the Advisory Council to provide input about market demands and offer suggestions about skills needed by graduates to succeed in a job once they are placed. See table below.

D. Is there sufficient student demand for the program?

The program has shown an increasing trend for participation since 2016, which could reflect the recruitment efforts by the College and recognition by community members that improved skill sets are valuable to future employers. Table 12 on Page 24 of the Self Study lists possible employers for General Technology students. Table provided below.

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As mentioned in the Self Study, the NAM (National Association of Manufacturers) report, “Manufacturers predict a need to fill 4.6 million jobs by ten years. The workforce demand is for a more skilled worker, which the PCCUA program addresses by preparing student with the needed skills. Both the region and the State of Arkansas are affected by the workforce manufacturing crisis. Local and regional employers are scouring for workers to fill vacancies, and they are looking especially close at applicants with particular general technology work skills. The PCCUA program prepare students for a variety of manufacturing-related jobs and the College offers other training such as HVAC, blueprint reading, and welding to support this degree. See table below.

Possible Employers for General Technology Students		
Helena-West Helena	DeWitt	Stuttgart
BPS, Inc. 28 Phillips 324 Helena, AR 72342	Adams Fertilizer Equipment Mfg. P.O. Box 628 DeWitt, AR 72042	A & P Fabrication 801 East 2nd Stuttgart, AR 72160
Blackhawk Warehousing and Leasing P.O. Box 809 Helena, Arkansas, 72342	Belleville Shoe South, Inc. P.O. Box 111 DeWitt, Arkansas 72042	Cavu Aerospace 2000 Airport Rd Stuttgart, AR 72160
Delta American Fuels 1305 Highway 20 Helena, AR 72342	Cormier Rice Milling, Inc. P.O. Box 152 DeWitt, Arkansas 72042	Fastenal 1919 S. Park Ave. Stuttgart, AR 72160
Dragon Woodland Sawmill 129 North Washington St. West Helena, AR 72342	CWI Central Wire Industries P.O. Box 186 Dumas, AR 71639	Industrial Components & Supplies 301 E Michigan Stuttgart, AR 72160
Enviro Tech Chemical Services 49 Phillips 311 Helena, AR 72342	Menard Manufacturing 6401 Hwy. 152 DeWitt, Arkansas 72042	Lennox PO Box 1170 Stuttgart, AR 72160
Helena Industries 101 MLK Jr. Drive West Helena, AR 72390	Producers Rice Mill 1014 West 2nd Street DeWitt, Arkansas 72042	Producers Rice Mill 518 E. Harrison Stuttgart, AR 72160
Hollowell Industries 315 N. Sebastian West Helena, AR 72390	SAF Holland P.O. Box 825 Dumas, AR 71639-0825	Riceland Foods P.O. Box 927 Stuttgart, AR 72160
NORAC 360 Phillips 311 Rd Helena, AR 72342	Producers Rice Mill 1014 West 2nd Street DeWitt, Arkansas 72042	Ring Container Technologies 2509 Harry Crawford Dr. Stuttgart, AR 72160
United Initiators SPI, Inc. 334 Phillips 311 Rd Helena, AR 72342	USDA Dumas Cotton Classing HWY 65 South Dumas, AR 71639	R.W. Manufacturing Inc. 1506 South Wood Stuttgart, AR 72160
		Scott Manufacturing 3308 S Main Stuttgart, AR 72160

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E. Do course enrollments and program graduation /completion rates justify the required resources?

Yes. Justification for the program is best measured by the support of the local industries within the communities impacted by the program. As long as the program is supported locally by external partners and other community entities, the program is considered justified. As shown in the following table, a total of 54 awards (including CP's, TC's, and AAS's) have been awarded in the past three years.

Number of Program Graduates 2016-2019					
	2016	2017	2018	2019	TOTAL
General Technology AAS	1		1		2
Advanced Manufacturing TC	1		1		2
Certificate of Proficiency	6	6	12	26	50

II. Review of Program Curriculum

A. Is the program curriculum appropriate to meet the current and future market/industry needs and/or to prepare students for advanced study?

The program curriculum, along with the state-of-the art manufacturing lab, is appropriate to prepare students to meet current and future area industry needs, as well as prepare students for advanced studies.

The Applied Technology Division offers an Associate of Applied Science degree in General Technology (Manufacturing Emphasis), a Technical Certificate in Advanced Manufacturing, and two Certificates of Proficiency—Advanced Manufacturing and Heating, Ventilation, and Air Conditioning (HVAC). As reflected from Table 1-4 in the program Self Study.

Curriculum Summary Outline Associate of Applied Science: General Technology (Manufacturing)		
Total Number of Hours for Degree: 60		
Course Number	Course Title	Credits
General Education Component – 18 Hours		
EH 113	Freshman English I	3
EH 123	Freshman English II	3
SP 243	Fundamentals of Speech	3
PSY 213 or SY 213	Social Science	3

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MS 123, MS 143, or MS	Mathematics	3
CT 113	Computer Information Systems	3
General Technology Component – 42 Hours		
IT 113	Industrial Safety and Sanitation	3
IT 223	Principles of HVAC	3
IT 133	Industrial Electricity	3
IT 163	Basics of Blueprints & Industrial Measurement	3
IT 214	Introduction to PLC	4
IT 243	Hydraulics and Pneumatics	3
IT 273	Principles of Industrial Machines	3
IT 1203	Intro to Manufacturing	3
IT 1213	Design for Manufacturing	3
IT 1223	Manufacturing Production	3
IT 1233	Manufacturing Power and Equipment Systems	3
IT 1273	Engineering and Problem Solving	3
WG 115	Intro to Welding	5

Curriculum Summary Outline		
Technical Certificate: Advanced Manufacturing		
Total Number of Hours for Degree: 33		
Course Number	Course Title	Credits
General Education Component – 9 Hours		
EH 113	Freshman English I	3
SP 243	Fundamentals of Speech	3
MS 1013	Fundamental math or higher	3
General Technology Component – 24 Hours		
IT 113	Industrial Safety & Sanitation	3
IT 133	Industrial Electricity	3
IT 273	Principles of Industrial Machines	3
IT 1203	Intro to Manufacturing	3
IT 1213	Design for Manufacturing	3
IT 1223	Manufacturing Production	3
IT 1233	Manufacturing Power and Equipment Systems	3
IT 1273	Engineering and Problem Solving	3

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Curriculum Summary Outline Certificate of Proficiency: Advanced Manufacturing		
Total Number of Hours for Degree: 12		
Course Number	Course Title	Credits
IT 1203	Intro to Manufacturing	3
IT 1213	Design for Manufacturing	3
IT 1223	Manufacturing Production	3
IT 1233	Manufacturing Power and Equipment Systems	3

Curriculum Summary Outline Certificate of Proficiency: HVAC		
Total Number of Hours for Degree: 12		
Course Number	Course Title	Credits
IT 113	Industrial Safety and Sanitation	3
IT 133	Industrial Electricity	3
IT 163	Basics of Blueprints & Industrial Measurements	3
IT 233	Principles of HVAC	3

B. Are institutional policies and procedures appropriate to keep the program curriculum current to meet industry standards?

PCCUA has a thorough review process for making curriculum changes. Coupled with the encouragement of instructors to attend external training and development opportunities, the curriculum is evaluated appropriately to adhere to the basics of manufacturing as well as preparing students for more innovative technologies.

The process for curriculum development follows a specific policy identified in the PCCUA Employee Policy Manual. Faculty are engaged in the curriculum changes processes. Not only are the change processes related to changes, addition, and deletions identified by specific policy driven procedures, there are forms tracking the details of each action. An

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Instruction and Curriculum Committee composed of various campus representatives finalizes group decisions about the curriculum.

C. Are program exit requirements appropriate?

Yes, the program requirements for receiving certificates/degrees are appropriate. Throughout the program, students are evaluated with various techniques including written assignments and hands on demonstration. As mentioned in the Self Study, standardized entrance and exit tests are not required of the General Technology, all courses have implemented student learning outcomes to determine program effectiveness.

D. Does the program contain evidence of good breadth/focus and currency, including consistency with good practice?

Yes, the program's core competencies, coupled with the specific coursework for manufacturing, provides skill development consistent with the needs of local manufacturing industries.

General Technology Fall 2019					
Program Outcome	Assessment Method/Measurement				
		Fll 18	Sp 19	Fall 19	
To provide high quality general technology courses/programs to prepare graduates with skills to enter the workforce in a mid-level manufacturing position.	85% of all General Technology students will achieve the core competencies by scoring 70% or higher on the required course assessment methods.	93	87	93	
	85% of AAS students will score 70% or higher in the capstone course.	-----	-----	-----	
Division Outcome	85% of all applied technology students will achieve the core competencies by scoring 70% or higher on the required course assessment methods.	90%	88%	87%	
Student Retention Rates		87%	86%	68%	

PCCUA Core Competency	Division Core Competency	Program Goals	Student Learning Outcome – Courses Assessed	Assessment Method/Measurement	Fall 18	Sp 19	Fall 19	ACTION PLANS
Communication	Students will demonstrate the ability to communicate effectively in their chosen discipline using visual and oral media	The interactive process through which there is an exchange of verbal and/or nonverbal information	IT 1213, IT 163	70% of students will score 70% or higher on the communication student learning outcomes for selected courses.	92	82	100	
Cultural Awareness	Students will demonstrate interact with diverse groups of people in their chosen discipline.	Students will acknowledge the diversity of groups and demonstrate toward ideas from others.	IT 163	70% of students will score 70% or higher on the Cultural Awareness student learning outcomes for selected courses.		80		
Social and Civic Responsibility	Students will demonstrate knowledge of ethics and legal issues appropriate to their chosen discipline	Students will demonstrate knowledge of ethics and legal issues appropriate to their chosen discipline.	IT 1203, IT 1273, IT 113, IT 214, IT 273, IT 163	70% of students will score 70% or higher on the Social and Civic Responsibility student learning outcomes for selected courses.	96	93	89	

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Analytical & Critical Thinking	Students will demonstrate ability to identify, analyze, and remediate problems critical to their chosen discipline	Students will demonstrate ability to identify, analyze, and remediate problems critical to their chosen discipline	IT 1233, IT 273, IT 113, IT 133, IT 1273	70% of students will score 70% or higher on the Critical Thinking student learning outcomes for selected courses.	92	85	93	
Technology Utilization	Students will demonstrate ability to perform technical operations to their chosen discipline	Students will demonstrate ability to perform technical operations to their chosen discipline.	IT 163, IT 113, IT 133, IT 223, IT 243, IT 1203, IT 1213, IT 1233, IT 1223, IT 1273, IT 1273	70% of students will score 70% or higher on the Technology Utilization student learning outcomes for selected courses.	91	82	89	

E. Are students introduced to experiences within the workplace and introduced to professionals in the field?

Yes, this is best demonstrated by the example of students developing a special part for a local industry on Page 5 under Current Thinking Trends. Students utilized skills such as AutoCAD, blueprint reading, and welding to complete the project. This is a prime example of students applying hands on learning to real world experiences. Guest speakers from local industries are also utilized to inform students of industry expectations and certifications.

F. Does the program promote and support interdisciplinary activities?

Yes, as demonstrated in the curriculum for the Associate of Applied Science degree on Page 31, the course components cover several disciplines such as Computer information Systems, Sociology, and Math. Eighteen of the 60 hours required for the AAS are in general education. See the courses listed in the Curriculum Summary Outline used in the Self Study and provided below.

Curriculum Summary Outline		
Associate of Applied Science: General Technology (Manufacturing		
Total Number of Hours for Degree: 60		
Course Number	Course Title	Credits
General Education Component – 18 Hours		
EH 113	Freshman English I	3
EH 123	Freshman English II	3
SP 243	Fundamentals of Speech	3
PSY 213 or SY 213	Social Science	3
MS 123, MS 143, or MS	Mathematics	3
CT 113	Computer Information Systems	3

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General Technology Component – 42 Hours
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- G. Does the program provide respect and understanding for cultural diversity as evidenced in curriculum, in program activities, in assignment of program responsibilities and duties; in honors, awards and scholarship recognition; in recruitment?

As evidenced in the table below, cultural diversity is one of the core competencies of the program as well as the institution itself.

General Technology Core Competencies				
PCCUA Core Competencies	Applied Technology Core Competencies	Related Courses	Assessment Methods	
Communication Skills The interactive process through which there is an exchange of verbal and/or nonverbal information.	Communication Skills Students will demonstrate the ability to communicate effectively in their chosen discipline using visual and oral media	IT 163 IT 1213	Written assignments Classroom and instructor critiques Rubrics	
Cultural Awareness Acknowledgement that society is diverse with groups of individuals possessing differing beliefs, values, attitudes, and customs that are shared from one generation to the next.	Cultural Awareness Students will acknowledge the diversity of groups and demonstrate toward ideas from others.	IT 163	Written assignments Classroom and instructor critiques Rubrics	
Cultural Awareness	Students will demonstrate interact with diverse groups of people in their chosen discipline.	Students will acknowledge the diversity of groups and demonstrate toward ideas from others.	IT 163	70% of students will score 70% or higher on the Cultural Awareness student learning outcomes for selected courses.

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III. Review of Academic Support

A. Does the program provide appropriate quality and quantity academic advising and mentoring of students?

Yes, the program consists of a division dean and program coordinator who also advise and assist students in course selections and graduation requirements. In addition, there are multiple interventions listed on Page 18 that assist with mentoring and advising students.

B. Does the program provide for retention of qualified students from term to term and support student prog towards and achievement of graduation?

Yes. There are two specific programs that address this directly: Early Alert Warning System and Achieving the Dream. The respective programs address academic interventions and overcoming barriers to academic success. Students complete an Individual Career Plan and have access to a trained advisor. In fact, in this program, the Division dean and two program coordinators in the Applied Technology Division serve as advisors to assist students in reaching their academic goals.

The program has a wide range of retention strategies identified in the Self Study. These include the following support strategies.

- Early Alert/Warning System – This allows opportunities for early faculty-initiated intervention to resolve problems or issues with class attendance, tutoring, advising, or other counseling needs of students.
- Student Email Accounts – Each student is provided a college e-mail account to improve communication between the student and instructors as well as the college staff.
- Student Support Services – This trio program motivates and supports students in their academic endeavors through academic advising, financial aid counseling, career exploration, peer and computer assisted tutoring, and advocacy with staff and faculty.
- Student Orientation – A college-wide orientation is required for new and returning students each fall to provide them with skills and resources to improve student success.
- Achieving the Dream (ATD) – This initiative promotes institutional change to improve student success in community colleges by identifying barriers that prevent students from advancing through college programs.
- Faculty Scheduled Office Hours – Faculty uses this time to meet with students to discuss course and program issues. Listening to students during this one-on-one time enables faculty to learn of students' needs to determine and implement strategies that will help students meet those needs.
- Multimedia Classrooms and Technology – General Technology classrooms are equipped with various technology-based components to accommodate a variety of learning styles

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and to meet the growing technology needs of students.

- Cooperative Learning – Activities incorporated into the classroom setting to assist the learning process. For instance, working in small groups fosters a better understanding of the subject matter as well as learning to work well with others as a team.
- Computer Labs – Access to computer labs are available.

IV. Review of Program Faculty

A. Do program faculty have appropriate academic credentials and/or professional certifications?

Yes, program faculty have the appropriate qualifications. Faculty members for the technology program meet the minimum academic requirements. Each technology faculty member has an acceptable degree or technical certification in his respective field of expertise.

As mentioned in the Self-Study, the academic excellence of a college is largely dependent upon the level of excellence of the faculty teaching in its programs. Noted in the Study is that “PCCUA is committed to a positive learning environment by providing high-quality educational programs through the employment of dedicated and competent faculty.”

All full-time, part-time, or adjunct faculty member in the General Technology program meet the minimum qualifications needed to teach in the Associate degree program. All full-time General Technology faculty members have the appropriate academic credentials that include a bachelor's degree. In addition, the welding instructors have the appropriate credentials and professional licenses, certifications and industry experience. PCCUA has three full-time faculty members (one full time in Helena and two full-time in Arkansas County). In addition faculty stay current in their field by acquiring professional development.

Professional Development for Full-Time Faculty 2016-2019		
Instructor	Workshops	Conferences
Michael Shaw	<ul style="list-style-type: none">• CNC plasma machine operations training• CNC Plasma machine software training• Webinar: Craft Instructors, Curriculum Performance Evaluators and Support Roles• Child Maltreatment Reporter Training• Rules Governing How to Meet the Needs of Children with Dyslexia• Mandated Reporter Training, Helena• Problem Solving Workshop	<ul style="list-style-type: none">• ACE CMI Fall Leadership Conference• Skills USA Conference; Timekeeper for Welding Competition

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Tim Campbell	<ul style="list-style-type: none"> • Repairing TIG pip icicles, Alabama Welding • Tips and Tricks on Welding Defects • Thermite Welding • Social Media and Email Workshop • Non-traditional students in STEM and Related Majors training • Technology Applications in Work and Instruction workshop • TIG weaving patterns, TIG finger • Pulse Shield Metal Arc Welding • Textbook review: Print Reading for Welders; Blueprint Reading for Welders • Windows 10 training, Stuttgart campus • Understanding, Teaching and servicing Today's learner, Dr. Mark Tayler • Zoom Training, DeWitt campus • Mandated Reporter Training, Stuttgart • Customer Service and Communication Workshop, Stuttgart • Building Paths to a Better Future Workshop, Stuttgart • FCAW-S Troubleshooting by Lincoln • Lincoln Welding machines and Consumables 	<ul style="list-style-type: none"> • Attended Skills USA Conference, Hot Springs; 2017, 2018, 2019 • American Welding Society (AWS) • Arkansas Skills USA, Welding • Washington Alloy Company; E-6012 SMAW Electrodes and other Welding Consumables, Little Rock
Daniel Whitted	<ul style="list-style-type: none"> • Consulting and recruitment to areas businesses, including Menard Manufacturing • Consulting for Adams Manufacturing • Consulting for Menard Manufacturing, Adam's Manufacturing, recruitment for students and student employment • Trip to Systems Group, El Dorado, June, Weld testing • Crase training • Consulted for two areas business, Menard Manufacturing and Adam's Manufacturing • Mandated Reporter training, Stuttgart 	<ul style="list-style-type: none"> • Member, Skills USA and receive their publication • Member, NCCER and receive their publication • Member, American Welding Society and receive their publication • Work Force Symposium at Petit Jean Mountain; sat on Secondary Education Panel

B. Are the faculty orientation and faculty evaluation processes appropriate?

Yes, the New Employee Orientation Supervisor Checklist identifies the steps to onboarding new employees. Faculty are evaluated on three different levels. Students evaluate the instructional delivery, dean and peers evaluate faculty by means of teaching portfolio review, and course management skills are evaluated by the appropriate dean. These procedures are more thoroughly described by PCCUA Administrative Procedure 370.05. This process includes several steps.

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All full-time and part-time faculty members are evaluated annually on the basis of classroom effectiveness, college service, professional growth, and community service. Evidence of instructor effectiveness is provided by student evaluations each semester and a teaching portfolio.

As identified in the Self Study, student evaluation is very important. It includes the following: A student questionnaire regarding instructor course delivery and design methods, administered to two classes, randomly selected, administered each fall and spring semester. Students are given the opportunity to provide feedback, anonymously, on instructor strengths and offer ways to improve teaching methods that promote student learning and student engagement. A summary of results is provided to the instructor and dean of the division. Student evaluation score averages are based on the following scale: 5-Always, 4-Usually, 3-Sometimes, 2-Rarely, 1-Never.

The faculty evaluation also includes a teaching portfolio composed of evidence documenting teaching effectiveness, college service, professional growth, and community service. It is a collection of instructor-selected documents to validate teaching strategies and performance. Minimum requirements for the portfolio are two current syllabi with relevant course information, examples of revisions in course materials, and examples of evaluation methods such as tests and graded assignments. Each portfolio is evaluated by the division dean as well as two instructors within the division and one instructor outside the division. Each section is scored and weighted, resulting in a numerical score that is compared with other faculty.

The evaluation score is based on a three point scale:

- **3 – Exceptional:** This is a job performance that is outstanding in almost every aspect. An exceptional rating implies that virtually any knowledgeable observer would recognize the overall high-quality results in all major areas of job emphasis.

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- **2 – Effective:** This is a job performance at the level intended for the job. Overall performance does not noticeably deviate from an acceptable level.
- **1 – Needs Improvement:** This is job performance that is short of effective. Further development and/or experience on the job is needed and there should be improvement within the next year.

C. Is the faculty workload in keeping with best practices?

Yes, all faculty met the minimum required hours set by the institution (Page 10 of the Self Study). Full time faculty members are required to teach a minimum of 15 hours a week. In 2018-19, the average number of courses taught was ten and the number of credit hours taught was 30 for full time program faculty.

V. Review of Program Resources

A. Is there an appropriate level of institutional support for program operation?

Yes, appropriate institutional support exists. The institution has committed adequate resources (faculty, advisors, and administrators) to ensure the successful operation of the program.

B. Are faculty, library, professional development and other program resources sufficient?

Yes, the resources are sufficient and documented in the Program Self-Study. In fact resources are plentiful. A small sampling of these resources is provided.

The following resources are available at the PCCUA Library:

General circulating collection including fiction, non-fiction, biographies, special interest;

- Journals (general interest and special subject areas)
- Newspapers including *Arkansas Democrat-Gazette*, *Wall Street Journal*, *USA Today*, local community newspapers, and special subject areas
- Coin-operated copier services
- Computer workstations with Microsoft software products, classroom software, and Internet access
- Online searchable databases (full-text and abstract) including:
 - Ebsco Databases
 - PsycINFO, Psychology and Behavioral Sciences Collection
 - CINAHL (nursing and allied health)
 - Health Source (Nursing/Academic Edition, Consumer Edition, Clinical Pharmacology)
 - MLA International Bibliography, MLA Directory of Periodicals
 - Academic Search Elite
 - Business Source Elite
 - ERIC, Professional Development Collection (education)
 - Gale Group: Opposing Viewpoints

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- SIRS Discoverer on the Web
- SIRS Knowledge Source
- World Cat
- Interlibrary Loan Services. PCCUA provides interlibrary loan services for students who need to find materials held in other library collections
- Courier Services. PCCUA runs a daily courier service between the 3 campuses.

VI. Review of Program Effectiveness

A. Indicate areas of program strength.

Listed below are the most important program strengths to the reviewer.

1. Experienced Faculty.
2. Continuous improvement and updating of courses and materials. Courses and faculty are evaluated on different levels to achieve this strength.
3. State-of-the-Art equipment and technology available for training.

B. Indicate the program areas in need of improvement within the next 12 months.

Due to the funding and the grants that have been awarded to the College, the program areas are currently stable. The manufacturing lab was instituted in 2016 and was a great addition to this program.

The current workplace and industry emphasis on short term, high wage, high need programs has had an impact on students desire to continue their education and acquire and Associate of Applied Science degree. The students really want to learn a skill, get a job, and make a living wage. In some ways, this push has hurt two-year programs. It would be helpful for this program to design an easier pathway for employed students to get the wo year degree quickly. Without the two-year degree, it is unlikely that the students will see advancement opportunities,

C. Indicate areas for program development based on market/industry demands that have not been identified by the institution.

1. Chemical Safety – Phillips and Arkansas counties both have significant chemical businesses (Agricultural applicator, chemical manufacturing, chemical warehousing, fabrication facilities which have cleaning solvents and paints).
 2. Occupational Safety – OSHA programs for hazardous work areas:
 - a) Hazardous energy – Lockout/Tagout
 - b) Cutting and welding
 - c) Confined Space
 - d) Hazard Communication
 - e) Fall protection
- *Encyclopedia Britannica Online*

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VII. Review of Instruction by Distance Technology

The program currently does not offer distance learning.

VIII. Review of Program Research and Service

A. Are the intended research and creative outcomes for each program appropriate, assessed, and results utilized?

Yes. The outcomes are reasonable, and the results are utilized appropriately to modify the program for improved results. (Appendix D)

B. Are the intended outreach/service/entrepreneurial outcomes for each program's initiatives appropriately assessed and the results utilized?

Yes, the results are assessed and used to improve the program.

As provided in the Self Study, to reach these goals, the assessment process for each accredited degree program includes the following steps: 1) determine what needs to be assessed, 2) select tools to measure results, 3) establish criteria to determine if concerns exist or if change is needed, 4) administer assessment tools, 5) evaluate results, and 6) develop and implement methods for improvement. The table below identifies planned improvements which were a result of assessment outcomes.

Assessment Results For Planned Program Improvements		
Improvement	Timetable	Estimated Cost
Enhance HVAC and Blueprint Reading courses	2019-2020	\$75,000
Place more emphasis on Auto Cad training	2020-2021	\$40,000
Provide Faculty training/development	Ongoing	\$10,000
Continue to offer certifications	Ongoing	\$3,000

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IX. Local Reviewer Comments

A. How is the program meeting market/industry demands and/or preparing students for advanced study?

Students are provided sound, fundamental skills and opportunities to utilize those skills in real-world type settings. This type of learning environment helps the student recognize and better understand more advanced manufacturing concepts (pneumatics, hydraulics, electricity). There are more industry position open in Eastern Arkansas than skilled workers to fill those position. This is why the ASAS in General Technology is so important to economic development at PCCUA.

B. What program modifications are needed?

Increase the amount of hands-on learning. My experience with the local workforce is that training works significantly better when the student has an opportunity to visually or physically engage with the subject matter. As already mentioned, I would like to see some incentive or motivational process to encourage more student to acquire the AAS. Too many are offered good paying jobs after earning a CP or TC and so they quit school without finishing. Part of that is that industry recruits them when they visit the program and serve on committee.

X. Report Summary

A. Include the reviewer comments on the overall need for the program graduates/completers in the local area, region and /or nation over the next 5 years.

Industry trends indicate there will continue to be a shortage of industrial workers/technicians in the foreseeable future. Programs such as the General Technology program are necessary to develop and improve the skillset of the local workforce.

This degree matched the industry need and provides students with a wide range of skills. Currently, there are many manufacturing opportunities. In this region, most of the jobs in this area have are in some aspect of manufacturing. An AAS in General Technology is a good degree to have because it opens more opportunity for the student.

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B. Include reviewer comments on the overall program quality, state program review process, etc.

The General Technology Program at PCCUA provides students with good exposure to industry fundamentals. This program is vital in providing education to individuals seeking employment in the manufacturing field. By seeking input from individuals in both the manufacturing and educational field, the review process provides insight into the program's strengths and weaknesses. However, it is a bit burdensome and some of the questions do not measure why the program is good, how we know the student is qualified for a job, or most reviewer really do not know about the institutional questions about service and support.