



**Academic Program Review  
External Reviewers**

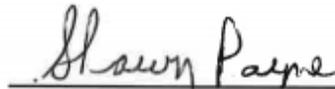
**John Killion and Shawn Payne**

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

**Agricultural Mechanics and Equipment Technology  
Certificate of Proficiency**

**June 7-10, 2021**

  
External Reviewer's Signature

  
External Reviewer's Signature

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.

# **Academic Program Review**

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## **Academic Program Review External Reviewers**

### **John Killion**

John Killion graduated from Arkansas State University with a Bachelor of Science degree in Physics and Math. Upon graduation, he began his career as a research analyst at Union Carbide, a uranium enrichment processing facility located in Paducah, Kentucky. In 1981, John relocated to West Helena, Arkansas, as the Plant Engineer for Helena Industries, a manufacturing facility and packaging plant for agricultural chemicals. He was promoted to Plant Manager and remained in that position until retirement.

John Killion is duly licensed in the state of Arkansas as an Electrician and a HVAC contractor. He has also taught courses for Agri Mechanics & Equipment as well as taught math and environmental workshops.

### **Shawn Payne**

Shawn Payne is the University of Arkansas Division of Agriculture County Extension Agent Staff Chair. He has worked for the extension service for 28 years assisting county clientele (farmers, chemical companies, ag business, and ag related businesses). with research information. He works with agriculture, family and consumer sciences, community development, and 4H Youth Development Program. He works extensively with farmers, agriculture mechanics and horticulture.

He holds a master's degree in general agriculture from the University of Arkansas at Fayetteville and earned his bachelors' degree from Southern Arkansas University at Magnolia in Ag Business.

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### I. Review of Program Goals, Objectives and Activities

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

*The goals provided in the Self Study completed for the Agricultural Mechanics and Equipment Technology program identifies that upon completion of the program students will be able to perform the following:*

- 1. Identify the components and understand the basic operation of small engines.*
- 2. Identify and compare the different types of engines and their major parts, systems, and principles of operation.*
- 3. Disassemble and reassemble an engine.*
- 4. Perform basic maintenance and service procedures.*
- 5. Identify the different kinds of fuels used in farm machinery.*
- 6. Understand elementary wiring and electronics as applied in agricultural industry, and will safely demonstrate their understanding through a series of work-related activities.*
- 7. Understand the concepts of safe equipment operation and maintenance.*
- 8. Safely adjust service, maintain, and operate various types of agricultural equipment.*
- 9. Use the appropriate operator's manuals to develop service schedules, and keep maintenance records.*
- 10. Understand and recognize the basic principles of hydraulics used in agricultural machinery and processes including energy, force, pressure, friction, work, power, Pascal's Law.*
- 11. Troubleshoot hydraulic systems.*
- 12. Understand agricultural industry employee-employer relationships and evaluation.*

*These goals are comprehensive and appropriate for a 12-hour credit program. The outcomes are assessed.*

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

*In the program Self-study, the faculty shared that the Ag Mechanics program provides practical knowledge of the component parts and fundamentals of operation of the agricultural equipment and machinery as well as diagnostic and repair procedures. Students engage in classroom and laboratory instruction. The program is geared toward using knowledge of farming process and procedures for equipment use and maintenance. Workers in the Ag Mechanics pathway are responsible for the operation of farm machinery and equipment such as tractors, combines, planters, irrigation system, and ancillary equipment.*

*Graduates in Ag Mechanics work with installation, operation, maintenance, and repair of equipment used for planting, harvesting, irrigation of crops, and some small homeowners' equipment.*

*Activities to meet these goals include the following skills:*

- 1. Demonstrate an understanding of farm operation and management.*
- 2. Apply technical skills in the operation, maintenance and repair of agriculture equipment used for the following:*
  - tillage and planting,*
  - crop protection products application,*
  - forage harvesting,*
  - precision agriculture practices,*
  - overall farm operations.*
- 3. Identify and discuss farm business management principles and practices used for production agriculture.*

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

*Yes, the program is meeting market demands related to preparing students for work. The Self Study reflected that today's farm equipment is highly mechanized and some of it*

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*requires computer technology knowledge. Farmers do not want to hand over expensive pieces of equipment to just anyone. Almost all farm equipment requires special skills for operation and ongoing maintenance. During harvest, equipment can be required in the fields almost 24 hours per day so an equipment breakdown can cost a farmer valuable time and money. In addition, it is important to be able to transition to continuous upgrades in equipment which are almost always technological improvements.*

### **D. Is there sufficient student demand for the program?**

*There is a high demand for competent, skilled labor in the Delta Farm Region. Modern farm equipment utilizes computers, electronics, and hydraulics, which means that workers need to continually update their skills. In fact, what was once a general repairman's job has become a more specialized technical field in the farm industry. As a result, many farmers rely on farm equipment dealers to maintain and repair their machinery because the equipment is more complex than in the past. Interestingly, there is a scarcity of Ag Equipment operators and those who can do repairs. Many of the PCCUA graduates can do both.*

*The following wages are listed by the US Department of Labor Statistics-Occupational Employment and Wage Statistics:*

*Agricultural Workers \$28,900.00*

*Agriculture and Food Technician \$41,970.*

*Agricultural Manager \$ 68,090.*

*<https://www.bls.gov/oes/current/oes119013.htm>*

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

*The Self-Study indicated that the Ag Mechanics program is designed to prepare students for occupations involving the maintenance and repair of implements such as tractors,*

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*combines, and other farm machinery. Upon completion of the curriculum, the student should have a thorough knowledge of engine and equipment repair, servicing, sales and equipment management. Also, upon completion, the student has the option of entering a two-year advanced manufacturing or agriculture program.*

Program	2020-21	2019-20	2018-19	Average # of Students Enrolled
<b>Ag Mechanics CP</b>				
AFLS 2203, Small Gas Engines	13	10	0	7.6
IT 133, Industrial Electricity	35	47	8	30
MMT 114, Basic Electricity	7	8	0	5
MMT 144 Industrial Mechanics	5	9	0	4.6

Program	2020-21	2019-20	2018-19	Avg. # of Students Enrolled
Ag Mechanics	2	6	0	2.66

*Note: The pandemic interfered with the graduation cycle and the order in which classes were offered because of scheduling. This resulted in only a few graduates for 2020-21. In 2018 there were 8 graduates but the College lost a teacher for a semester in 2019.*

## II. Review of Program Curriculum

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

*The Self-Study shared that at one time, Ag Mechanics were perceived to be general repairmen or fix-it people. Today that job has become a more specialized technical field in the farming industry. The curriculum provided in this program provide students with the skills needed to address market demands. However, it is important to realize that technology and demands are in a continuous state of change.*

*Farmers rely heavily on fully functioning farm equipment so maintenance and repair skills are needed. The farm equipment is far more complex than in the past. Equipment dealers provide special training on specific kinds of equipment so that operation and maintenance*

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*is appropriate, safe, and efficient. The PCCUA program also incorporates the basics of diesel engines, transmissions, and hydraulics. Students select the program, and surveys of instruction have revealed a high level of satisfaction with the courses.*

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

*Yes, procedures and program curriculum are current to meet industry standards. New programs, courses, modifications and deletions are initiated at the department or division level with input and recommendations from faculty and advisory council members. Faculty evaluates and discusses curriculum changes and submits recommendations to the division dean. These proposed changes are routed through a Curriculum Change Form sent to the Curriculum Committee of the Faculty Senate. Changes are then presented to the Instruction and Curriculum Committee for approval and inclusion in the college catalog and website. The Instruction and Curriculum Committee is a standing committee led by the Vice Chancellor for Instruction, and committee members include division deans, department chairs, Faculty Senate President, Senate representatives, and functional area supervisors. The PCCUA Board Policies and College Procedure Manuals are very specific regarding the procedure to be followed for new course proposals as outlined in Administrative Procedure 420.02. This procedure is tied to PCCUA Board Policy 420: Curriculum Management Policy.*

**C. Are program exit requirements appropriate?**

*There are no exit requirements other than a student must maintain a C average to complete and all courses must be completed with a "C" grade.*

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

*The following evidences validate good breath, focus, and consistency with good practice:*

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- *Trends in Ag Mechanics are that students examine equipment which can help maximize soil protection related to loss of nutrients which is critical in preventing plant disease.*
- *The use of environmentally friendly tractors. This is important in keeping driving comfort while reducing soil shock caused by heavy equipment such as a large square baler which is hard on the soil.*
- *Students are introduced to better irrigation system practices which help with water preservation.*
- *Another important trend that students are introduced to includes the spreading of fertilizer mixtures evenly and more precisely. This is critical to farming and the electronic controls in newer farm equipment which can monitor and provide the exact amount of fertilizer needed for a crop.*

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

*Currently there are no practical or applied experiences. Students do take field trips which are planned to implement a two to four-week practical experience in the lab portions of this program.*

**F. Does the program promote and support interdisciplinary initiatives?**

*The Agricultural Mechanics and Equipment Technology Program feeds into the Associate of Applied Science Degree in Applied Technology. Interestingly, some of the Truck Driving students are interested in the Ag Mechanics courses too. However, farmers are the group who most desire that these graduates are trained to work on farms operating costly but essential farm equipment. The goal of the PCCUA Agriculture Mechanics and Equipment Technology program is to qualify students for job entry into farm, business, or as industrial agricultural mechanics and to continue the training of students graduating from high school agriculture programs. The objective of the program is to teach technical knowledge*

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*and skills for entry-level positions in selling, selecting, and servicing agribusiness technical equipment including computers, specialized software, power units, machinery equipment, structures and utilities. The program includes hands-on experiences with agricultural power equipment and machinery units. The students in the CP program are not required to take general education courses. However, the program is closely tied to the Associate of Applied Science in General Technology. In addition, those desiring an AAS in Construction can transfer these courses, and the experience is useful for that degree.*

**G. Does the program provide respect and understanding for cultural diversity as evidenced in the curriculum, in program activities, in assignment of program responsibly and duties; in honors, awards and scholarship recognition; in recruitment?**

*The Self-Study indicated that a portion of the faculty development has focused on culturally responsive teaching. The faculty initiate studies to understand and connect with groups of students based on student characteristics such as race, gender, socio-economic level, and disability. The reviewers were told that the College is trying to look at certain majors which attract predominantly one gender or one ethnicity to diversify. For example, very few females select welding as a major, yet, data shows that women make good welders. Many males do not select nursing, although those that do can earn a good living and have many options open to them. Culturally responsive teaching means that a faculty member understands the challenges faced because of ethnicity, poverty, or even post incarceration. The College promotes good teaching by providing workshops which improve assessment and teaching strategies.*

### III. Review of Academic Support

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

*Yes, the program does support the appropriate number of academic advisors and other supports. Every Ag Mechanics student is assigned a focused advisor who is familiar with the program and*

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*knowledgeable about program requirements, degree requirements, and college services. Other support interventions include:*

*Advisor Early Alert- faculty send referrals to Advisors to resolve problems or issues with class attendance, tutoring, advising, or other needs.*

*Student email address- each student is provided a college email address to improve communication between the student and instructors as well as the college staff.*

*Student Support Services- this program supports students in their academics through advising, financial aid counseling, and advocacy.*

### **B. Does the program provide for retention of qualified students from term to term and support student progress toward and achievement of graduation?**

*Recruitment of students at PCCUA involves a diversified strategy to enroll new students. The recruitment team, led by the Director of Enrollment Management, focuses recruitment efforts on public and private schools in Arkansas and Mississippi. The Phillips County public high schools are: Helena-West Helena School District, Marvell-Elaine School District, Lee High School, and the Barton School District. The private Arkansas high schools are: Marvell Academy, Lee Academy (Marianna, Arkansas), and Desoto School. The Arkansas County schools are Stuttgart School District and DeWitt School District. In addition, recruitment is pursued in Clarendon School District, Dumas School District, England Schools, Hazen Schools, Carlisle Schools, and private school Evangelical Methodist School. In addition, the team recruits from the Knowledge Is Power Program School (KIPP) located in Helena, Arkansas. In Mississippi, the recruitment team recruits students from Clarksdale Public Schools and Clarksdale's private school, also named Lee Academy.*

*Retention and success of students is a priority at PCCUA.*

*One of the College's retention and success activities is the faculty initiated Early Alert System. The Early Alert System is an effort to contact and provide support to students who are in danger of failing because on nonattendance or a lack of preparation. With the Early Alert System, faculty members*

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*alert the student's advisors detailing the problem(s). The student success coordinator and/or the advisors contact the student and try to input some intervention strategies. When possible, intervention is done within the first few weeks of classes increasing the possibility of the successful completion of the term.*

*The Secondary Area Technical Center students are actively recruited for completion of the Ag Mechanics and Horticulture programs.*

*A college-wide student orientation is required for new and returning students each fall semester to provide them with skills and resources to improve student success.*

*Faculty utilize faculty office hours to meet with students one on one.*

*Cohort grouping approach to enrollment has been extremely helpful in retention. This has worked in Early Childhood Education and Allied Health so this model is being extended to other groups. One particularly effective grouping designed to provide support for formerly incarcerated students is called Transition Training Opportunity Program (TTOP). Of those completing the program, job placement and continued education options are at 100%. Approximately 90% opt for job placement.*

#### **IV. Review of Program Faculty**

##### **A. Do program faculty have appropriate academic credentials and/or professional licensure/certification?**

*The following faculty members who teach in the program possess appropriate academic credentials.*

*Jamie Branson has a BS in Agriculture from the University of Arkansas at Monticello. He has worked at PCCUA since 2014. Branson has been actively engaged in numerous youth programs in the summer and works with 4H, the Future Farmworkers of America, and Skills USA. He teaches in the Certificate of Proficiency program for Agricultural and*

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*Equipment Technology programs and the Certificate of Proficiency program in Horticultural Operations.*

*Chris Warwick has an AAS from Phillips Community College of the University of Arkansas and a B.B.A from the University of Arkansas. She has taught for the College since 2018. She works with Skills USA and other student programs. Ms. Warwick has a background in manufacturing and industry and worked at Lennox Industries for many years before deciding to come to the College to teach. She teaches several other equipment programs and does all the forklift training for the College.*

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

*PCCUA faculty have an onboarding process which has been provided as Appendix E: A Supervisor's Guide for New Employee Onboarding Guide. The process ensures that each new faculty member is assigned a person to serve as a mentor and that processes can be introduced to the new employee quickly and efficiently.*

*Three areas of faculty performance are evaluated: instructional delivery, instructional design, and course management.*

*Instructional Delivery - Faculty must demonstrate competency in instructional delivery which is measured using student evaluations and comments. A comprehensive student evaluation is administered by an impartial facilitator to two randomly selected classes each fall and spring semester. Faculty must have twenty students for the evaluation.*

*Instructional design is measured by reviewing faculty teaching portfolios. Documents which faculty include in the teaching portfolio focus on syllabi, students learning outcomes, and assessment. College service, community service, and professional development activities are included in the portfolio also. The division dean, and a peer review committee evaluate the artifacts submitted for the portfolio review by faculty. A peer review committee*

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*composed of one faculty member selected by the instructor from his or her division, one faculty member selected by the division dean from the division, and one faculty member from another division selected by the Faculty Development Committee reviews the portfolio.*

*Course management examines the instructors' interaction with students and faculty, submission of grades, reports, student documentation, other reporting functions, and classroom management.*

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

*Full time faculty teach thirty points or its equivalent per semester. Thirty points is equivalent to fifteen credit hours which usually translates into four or five classes depending on the credit hours of the course being taught.*

## **V. Review of Program Resources**

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

*The following institutional support services are available for this program.*

***Student Support Services (SSS)** - SSS serves low-income, first-generation college students, and individuals with disabilities evidencing academic need. It is designed to increase retention, graduation, and transfer rates of eligible students. Services include instruction in study skills, tutoring, transfer assistance, campus visits, advice and assistance in course selection, career exploration, and financial literacy.*

***Students with Disabilities** - Students can make an appointment to meet with a Disability Coordinator on the home campus as early as possible during a particular semester, preferably before a semester begins. A Disability Coordinator is located on each campus*

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*and these individuals also serve as advisors. Students may obtain an Application for Disability Services Form from the coordinator or online at [www.pccua.edu/studentswithdisabilities](http://www.pccua.edu/studentswithdisabilities).*

**Tutoring** - Tutoring is available to students on each campus and that service can be accessed by contacting the Learning Center Coordinator. The College encourages the faculty to provide tutoring because it is difficult to find tutors in certain disciplines (science and math). It is also difficult to train and retain tutors.

**Bookstore** -The BBA Solutions Bookstore is located on each campus and can provide not only textbooks but also has classroom supplies, college apparel and gift items. Bookstore hours are posted on each campus. Book buy back dates are during the week of finals in December and May and after the last week of Summer School.

**Complaints** - PCCUA students are always encouraged to seek informal resolution to issues or problems and information and assistance for filing a formal resolution is provided. The Vice Chancellor for Student Services and Registrar will travel from one campus to another to address formal complaints. College policy is to address all complaints informally at the lowest level, if possible.

**Career Pathways** - The Arkansas Career Pathways (ICP) initiative is a comprehensive project designed to improve the earnings and post-secondary education attainment of Arkansas's low-income Temporary Assistance for Needy Families (TANF)-eligible adults. The initiative provides funding for two-year colleges to develop career pathways programs that assist TANF-eligible adults to earn a marketable educational credential for immediate entry into a high demand occupation. One CP specialist is located on each campus.

**Student Success (financial and career coaching)** - PCCUA uses Student Success coaches to provide career and financial coaching strategies. All coaches are trained and present the same curricular activities as the other two campuses. Student Success courses are tied

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*to enrollment in Basic Writing II and Composition I. This allows the College to reach almost all students with Student Success support.*

***Student Support Labs*** - All campuses have a multi-purpose learning center for students to use. Students can receive tutoring. It is also used for testing and review. Many students go there to study or work on assignments. College faculty and staff can volunteer to work with students in this lab.

***Academic Appeal*** - All students have full access to the academic appeal process information and forms. This process begins with the student's instructor. The Faculty Senate Academic Standards Committee hears appeals and is composed of faculty from all three campuses.

***Food Pantry*** - Each campus has a fully stocked food pantry which students can use to feed their families. The pantries have specific hours which are posted and any student may get much needed groceries. Items in the pantries are suitable to prepare easy meals for students with dependent children.

***Career Closet*** - The Helena and DeWitt campuses have career closets with lightly worn clothing students may select which are appropriate for professional or non professional interviews and other college related activities. Any student may use this service.

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

*Library resources are not applicable because this is a certificate of proficiency program. However, professional development opportunities are extensive and required by all faculty. There are several kinds of professional development which has been promoted because of the needs which emerged in the pandemic. First, technology in teaching has been at the forefront of training provided by the College. Student engagement has been stressed as a*

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*means to address the disconnectedness felt by some students who were forced to take courses remotely. Any student needing a computer may borrow one from the IT Department for the entire semester. Additionally, students and faculty have ongoing orientation to working with technology. Another area of development has focused on culturally responsive teaching. It is important for faculty to understand and connect with groups of students based on student characteristics such as race, gender, socio-economic level, and disability.*

### **VI. Review of Program Effectiveness**

#### **A. Indicate areas of program strength.**

- 1. The region is agricultural so graduates can find and keep jobs.*
- 2. Students learn engine repair and technology needed to operate equipment.*
- 3. The Ag Mechanics program aligns with the CDL truck driving program.*
- 4. Students gain engine repair and diesel knowledge which is very important to farmers.*

#### **B. Indicate the program areas in need of improvement within the next 12 months; and over the next 2-5 years.**

- 1. It is difficult to get students to continue their education in this program. Stronger recruitment and student retention are needed.*
- 2. The program entry level varies. Some students have no trouble with the engine repair while others are more comfortable with the computer aspects of the program. The program could be extended to focus more on the computer aspect of equipment such as GPS systems on tractors, the program set-ups for fertilizer application, etc.*
- 3. Additional instructors or adjunct instructors are needed to support the program expansion suggested above in Item 2.*
- 4. A pathway to Technical Certificates and Associate of Applied Science degree should be established.*

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5. *The pandemic had a profound impact on instruction and student learning. It interrupted ongoing course delivery and forced all instructors to pivot to online instruction where possible. Continue to build a stronger online program to help retain and recruit students.*

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

*PCCUA has identified numerous areas of market demands. Two points we thought were important which have been mentioned. There are many jobs related to repair work and scouting that might be applicable to this job. More and more, scouting will be done using drones so there may be an opportunity for some of these graduates to get that kind of job.*

**VII. Review of Instruction by Distance Technology (if program courses offered by distance)**

**A. Are the program distance technology courses offered/delivered in accordance with best practices?**

*Not applicable.*

**B. Does the institution have appropriate procedures in place to assure the security of personal information?**

*Yes, all files are kept in the registrar's office. Only directory information about students is shared.*

**C. Are technology support services appropriate for students enrolled in and faculty teaching courses/programs utilizing technology?**

*Technology in teaching has been at the forefront of training provided by the College. Student engagement has been stressed as a means to address the disconnectedness felt by some students who were forced to take courses remotely. Any student needing*

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*a computer may borrow one from the IT Department for the entire semester. Additionally, students and faculty have ongoing orientation to working with technology.*

**D. Are policies for student/faculty ratio, and faculty course load in accordance with best practices?**

*Yes, with the exception of some unplanned interruptions: 1) The loss of a part time instructor which interfered with being able to offer the last course needed for completion. 2) Second serious disruptive issues were caused by the pandemic when the College was forced to shut its doors making students unable to complete until the fall term. Fundamentally, the faculty ratio and course load are in accordance with best practices.*

**E. Are policies on intellectual property in accordance with best practices?**

*Not applicable because this is a CP. However, the College does have a strong intellectual property policy.*

### **VIII. Review of Program Research and Service**

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

*Not applicable to a CP.*

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

*Assessment is a quality data tool to measure the past and guide the future. This is an ongoing process of establishing clear, measurable outcomes to determine success,*

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*failure, or needed changes. Assessment takes place at the course, program, division, and institutional levels.*

### IX. Local Reviewer Comments

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

*There is a large market/industry demand, and the College is prepared to meet that demand through recruitment, instruction, and lab equipment for hands-on skill development.*

**B. What program modifications are needed?**

*No immediate modifications are necessary. However, long-term planning should include a more comprehensive program to include computer and digital technology such as the GPS systems training mentioned in this review.*

*The reviewers recommend revising the approach to publicizing the program, examining the program course requirements, two electricity courses are not needed, and substituting one of the electricity classes with a shop or a similar class. These changes could revitalize the program. We also think that most students do not know what can be done with this major.*

### X. Report Summary

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

*The PCCUA Agricultural Mechanics and Equipment Technology program has appropriate goals and activities. Students are accomplishing these goals by applying practical knowledge of the components of parts and the fundamentals of operation of*

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*agricultural equipment. These graduates work with installation, operation, maintenance and repair of equipment used for planting, harvesting, irrigation of crops, and some small homeowners' equipment. The program does meet market needs and there is sufficient demand for the program. Course enrollment is good. However, the graduation rate is very low. There are no exit requirements.*

*A review of the curriculum indicated that the students might benefit from having a shop course rather than two electronic courses. The College policies make additions and course modification easy and new courses can be added without too much red tape.*

*The program does reflect that the faculty exercise best practices in teaching content and strategy. It might benefit students to have more workplace experience to provide an opportunity for students to apply learned skills.*

*The program could do more to promote interdisciplinary and transfer options to its students.*

*There are numerous supports in place for the students to ensure they succeed. The reviewers did think more could be done to tie the major to other programs.*

*The faculty are well qualified to teach and pursue ongoing professional development activities. The College has a comprehensive evaluation process which strives to inform and improve teaching. The workload is in keeping with best practices and program resources are more than sufficient.*

*Program effectiveness has been measured by the number of student completers who are placed in jobs. It is sometimes difficult to get students to continue their education.*

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

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*The review process was easy to follow and it helped us follow the program when questions needed answered. The PCCUA Agricultural Mechanics and Equipment Technology is a high-quality program which could benefit from expanding some of its opportunities and partnerships.*

### I. Response to the External Reviewers' Recommendations

In this section, please copy the recommendations that the external reviewers provided in their report. Then, provide the institution/department/program response to the recommendation.

<i>Explore the possibility of a diesel mechanics program.</i>	<b>Response</b> This is something we are exploring but we are not sure when we can make it a reality.
<i>Make sure that courses are offered on a rotation cycle to facilitate more graduates. ***</i>	This is probably the most important recommendation. Losing a faculty member and the pandemic had a serious impact on completers.
<i>Emphasize the importance of Ag Mechanics. Some students tend to look down on soil jobs. It is important to share how important these jobs actually are.</i>	Both reviewers mentioned doing a better job of recruiting students and finding students who really have an interest in the program.
<i>Integrate more business and entrepreneurship into the curriculum.</i>	This is good advice and the instructors will examine ways that this can be done with the current curriculum.
<i>The program may be better if only one electricity class was offered and the instructors added shop. The syllabi reflect that some shop activities are integrated into the courses.</i>	The faculty will review and reorganize the curriculum to reduce the electronics requirements to one course and add a shop course.
<i>Simulations for ag programs are expensive but this kind of experience can greatly enhance learning.</i>	The College will look for opportunities to find grants which might be able to fund simulation equipment.
<i>The program could use more technology. The Ag Equipment field has been dramatically changed by GPS and drones and it is continuing to have changes.</i>	The technology can be integrated into the actual instruction. Hopefully, we will soon have the capacity to have a technology curriculum specialist work with students.
<i>It would be helpful to students if the program became more closely aligned to the County Extension Service work.</i>	One of the reviewers is an extension agent and has indicated that he can make some of this happen.

Note: Reviewers comments are in italics

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### I. Actions Taken in Response to the External Reviewers' Recommendations

In this section, please describe the actions that will be taken as a result of the review; if any based on the recommendation from the external reviewers; note when the action will be completed and who is responsible for seeing that it is completed; and finally, list any resources that will be used to complete the action. Please add lines to the table as necessary.

<b>Recommendation</b>	<b>Action</b>	<b>Timing &amp; Responsible Person/Group</b>	<b>Resources</b>
<i>Explore the possibility of a diesel mechanics program.</i>	Fall-Spring 2021-22	Chris Warwick	Time and program proposal writer
<i>Make sure that courses are offered on a rotation cycle to facilitate more graduates.</i>	Summer 2021 Immediately	Two Faculty and Chair	Time for planning
<i>Emphasize the importance of Ag Mechanics. Some students tend to look down on soil jobs. It is important to share how important these jobs actually are.</i>	Fall 2021	Von Daniels, Vicki Cobb	Very few resources are needed, this mainly relies on ideas
<i>Integrate more business and entrepreneurship into the curriculum.</i>	Spring 2022-23	Curriculum Redesign	Curriculum mapping may help this
<i>The program may be better if only one electricity class was offered and the instructors added shop. The syllabi reflect that shop activities are integrated into the courses.</i>	Fall 2021	Program course changes	Write a curriculum change and submit it to the faculty Association Curriculum Committee and the Instruction and Curriculum Team
<i>Simulations for ag programs are expensive but this kind of experience can greatly enhance learning.</i>	Immediately and ongoing	Explore options, the College has no funding to support this	Grant writer, time
<i>The program could use more technology. The Ag Equipment filed has been dramatically changed by GPS and drones and it is continuing to have changes.</i>	Spring 2022-2023	Professional development related to the integration of technology into the program	Establish a professional development schedule with the DL coordinator.
<i>It would be helpful to student if the program became more closely aligned to the County Extension Service work.</i>	Immediately	Summer James Branson	Begin this immediately, few resources are needed but time is important in aligning the work.
<i>Insert more Ag Business into the curriculum. Some entrepreneurship would also be beneficial.</i>	Spring 2022-2023	Begin planning how this can be done, if a separate course is needed or should it be taught through existing courses.	Time and assistance to determine where this can be integrated.