UNIVERSITY OF ARKANSAS
PULASKI TECH

Assessment Report:
Program Level

The University of Arkansas – Pulaski Technical College calls for each program (AS, AA, AAS, CP, and TC) to have an assessment plan for each academic year that includes the following:

- **Program learning outcomes**
- **Procedures for assessing the achievement of student learning**
- **Procedures for analyzing and interpreting assessment results for the continuous improvement of the program.**

A primary goal for each instructional department's assessment is to include at least one direct measure of student learning, which is accomplished usually through the use of locally developed tests, student portfolios, capstone assessment measures, embedded assignments, or through licensure exams and standardized national tests. In addition to direct measures, most areas may also use indirect methods to assess student achievement. Graduation rates and graduation and employer surveys are frequently used as indirect indicators of student achievement.

This form presents template of questions that must, at minimum, be addressed by instructional departments when filing an assessment plan. While an electronic version of this form will be made available, instructional departments may include additional information not specifically addressed in this form as long as the template questions are addressed.

Other Assessment Considerations:

- The College expects programs/departments/divisions to make curriculum changes and budget requests based in part upon assessment findings. Assessment of student learning should be a catalyst for quality instruction and improvement across the college community.
- All programs will be asked to submit an annual assessment report to the Assessment Committee by October 10 of each year. (If October 10 falls on a weekend, please submit reports on the following Monday.)
- For technical and occupational programs, please consider the role of your advisory committee in your student learning objectives.

This form must be completed by October 10 of each academic year. Complete each part of this form. Please follow highlighted instructions.

Part A: Identification and Student Learning Outcomes

1. Name of program: *AAS Electronics Technology*

2. Name of individual compiling report: *Joe McAfee*

3. Date of submission: *10/20/21*

4. Academic year: *2021-2022*

5. Is the assessment plan

X an initial plan for the program ☐ a revision of an old plan ☐ unaltered from previous year

6. Provide a mission statement of the program to include a description of the jobs/careers for which students are being prepared. Also, list the learning outcomes for your program.

Mission--to give broad electronic instruction with practical work experience in partnership with local industries to prepare students for entry level employment.

Student Learning Outcomes:

1 ***Identify basic electrical hazards and describe risk mitigation techniques.***

2 Make electrical calculations as needed in a variety of circuits and electrical appliances in order to determine electrical values critical to safe functionality.

3 Given an electrical issue, identify, troubleshoot, and provide a solution for electrical defects in various common electronic and electrical circuits.

4 Apply principles of photonics to a variety of instrumentation and measurement applications.

5 Demonstrate practical knowledge of computers, micro-controllers, and programmable logic controllers in a variety of control applications.

6 Demonstrate the ability to apply troubleshooting and other work skills in a real-world environment through a monitored internship.

7. Complete the curriculum map below. Please mark an X in the map below to indicate which courses correspond with learning outcomes. If applicable, you can also use I, D, or M to indicate that a learning outcome is introduced, developed to foster more sophistication, or demonstrated at a level of mastery acceptable for graduation within the program. Additional courses may be marked with an R to indicate reinforcement of a program learning outcome.

List all supporting courses	Program Learning Outcomes						
	PLO #1	**PLO #2**	**PLO #3**	**PLO #4**	**PLO #5**	**PLO #6**	**PLO #7**
ELT 1114	**I, D, M**	**I, D**	**I, D**				
ELT 1214		**D, M**	**D, M**				
ELT 1314					**I, D, M**		
ELT 1414				**I, D. M**			
AMS 1504						**I, D, M**	
TECH 2101							**M**
CIS electives					**D, R**		

8. How does your assessment report connect to institutional learning outcomes?

To help with mapping your assessment data to the school's overall institutional outcomes, please check the boxes for the institutional outcomes directly associated with the assessment data presented in this report. For details on each outcome, see Appendix A.

See spreadsheet Electronics Courses Outcomes.

Part B: Assessment Methods and Data Sources

In this section of the assessment plan, learning outcomes for the program will be defined. Also, assessment methods and data sources for each outcome must be defined. Follow the instructions below to define and relate the program learning outcomes.

1. Complete the chart below or attach documentation of the assessment process that includes the data included below.

   See spreadsheet Electronics Courses Outcomes.

2. Please check or highlight any of the statements below that apply to your program assessment. Also, for each program outcome, if applicable, attach any assessment instruments, grading rubrics, or exemplars of student performance used at the program level.

   ☐ Rubrics and/or standardized tests were pilot-tested and refined.

   X Rubrics were shared with students.

   See samples Notebook Eval Rubrics and Course Work Samples from each course in program

   ☐ Reviewers were calibrated with high inter-rater reliability or norming workshops.

3. Also discuss any additional data sources that may be used to gauge success (e.g. charts, graphs, surveys, rates).

   Antidotal comments from employers of graduates indicate high level of satisfaction and desire for more graduates of similar caliber.

4. Describe the process of analyzing the assessment data, including specifically discussion of results and collaboration among faculty in the program, for the last academic year. Also, check below any of the following statements that apply to your program assessment.

   Advisory committee input has helped formulate curriculum.

   Trial and error methods have been used to improve student success. For example, software for practice of concepts taught in class was provided to students without holding them accountable for using it. Success rates were lower than expected. Changed to making use of the software mandatory and formulating quizzes utilizing part of the software as a basis for the quizzes; improved success greatly.

X Comparative data used when interpreting results and deciding on changes for improvements.

Quiz results before and after program adjustments were used to verify validity of modifications.

☐ National standards, collaboration with sister programs and/or research data were used to ensure the program was held to high standards.

5. Complete the chart below or attach documentation of the assessment results that includes the data included below. Results should include total number of students assessed, the distribution of scores, relevant and detailed interpretation, student strengths and weaknesses, and whether the target was met. ***See spreadsheet Electronics Courses Outcomes***
6. Describe your use of results, including planned improvements to the program and/or any follow-up studies that confirmed that changes have improved student learning.

As noted in spreadsheet, Electronics Courses Outcomes, more frequent and lower stakes assessments have made it easier to stay abreast of course progress. This in turn has improved grades.

Because the use of computer software has introduced a technical component, videos were produced to instruct students on the process of downloading, installing, and using the software. This has improved the process of getting students to use and benefit from the software.

On the other hand, there are still some students who struggle with getting started using the provided tools. This delay results in students getting behind as concepts are introduced and built upon without them practicing. We intend to address this problem by specifying the hardware on day one of the class and requiring students to bring their computers (personal or loaners) to class on the second day. This will allow hands-on instruction of getting the software running and how to generate grade reports documenting progress.

7. What specific changes were implemented this year based on last year's results?

Recording and streaming of lectures has allowed material to be covered at a faster pace since students can rewatch material for clarification and more comprehensive note taking

Additionally, this mode of presentation has allowed students to attend who would not have been able otherwise due to work or other obligations. The recorded lectures can be watched at a time convenient to the student. This effort has allowed us to "meet students where they live."

8. What specific budgetary resources are needed for your program based on your assessment results?

   Due to the manufacturer discontinuing kits used in ELT 1214, a new kit needed to be identified. $3500 will be required to acquire initial supplies. Discussions with library have yielded an arrangement where students will check out kits for use at home and return them at the end of the semester. $250 per semester should be sufficient to maintain these kits.

9. Please write any additional information here that you think is pertinent to the assessment process for your program that assists stakeholders (i.e. administrators and standing committees) in understanding your report.

   An adjustment to the courses offered in the degree plan is needed because of the number of courses that cannot be offered due to low enrollment, see Degree Plan AAS Electronics PROPOSED. A larger number of electives using courses from the CIS area will satisfy requests of the advisory committee for courses of this type and will also ensure that students will be able to progress without interruption due to cancellations of needed classes.

Appendix A – UA-PTC's Institutional Learning Outcomes

1. Analyze information from credible sources. (Information Literacy)
This may include the ability to:

- Locate relevant information
- Evaluate the quality and usefulness of the information
- Synthesize the information.
- Communicate the information in an ethical manner consistent with the standards of the field or program of study.

2. Appropriately apply a variety of technology tools within one's discipline. (Technology Literacy)
This may include the ability to:

- Acquire information,
- Solve real-world problems,
- Communicate, and/or
- Perform tasks and processes.

3. Communicate effectively with diverse audiences in multiple contexts. (Communication)
This may include the ability to:

- Develop, organize, and present orally well-supported and ideas formally and informally with consideration of community and context.
- Develop, organize, and present in written format well-supported ideas formally and informally with consideration of community and context.
- Clearly express ideas, information, and concepts in various modes and media, including the proper use of appropriate technology.

- Select and utilize means of communication appropriate for a variety of professional, civic, and social circumstances, environments, and communities.
- Consider diverse communities in multiple contexts.

4. Apply critical thinking skills to achieve a desired goal. (Critical Thinking)

This may include the ability to:

- Apply appropriate methods to solve problems or address issues.
- Use evidence to justify conclusions.

5. Use quantitative methods to solve problems. (Quantitative Reasoning)

This may include the ability to:

- Analyze and interpret quantitative information.
- Apply quantitative concepts and skills to solve real world problems.

6. Demonstrate awareness of cultural differences. (Cultural Awareness)

This may include the ability to:

- Explain how similar actions can be understood differently depending on cultural context.
- Evaluate the impact of culture on individuals and groups.

7. Demonstrate career readiness skills. (Professionalism)

This may include the ability to:

- Demonstrate personal accountability.
- Meet commitments.
- Demonstrate ethical behavior.
- Demonstrate teamwork.