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: *Respiratory Therapy Program*

2. Name of individual compiling report: *Danah Beard*

3. Date of submission: *08/27/2020*

4. Academic year: *2020*

5. Is the assessment plan (*Check or highlight one*)

☐ 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.
The Respiratory Therapy Program is a patient-care field which deals primarily with patients who have respiratory diseases and disorders. Professional opportunities are constantly increasing and many areas of respiratory care have become specialized. Specialty areas in Respiratory Therapy include: pulmonary function testing, arterial blood gases, stress testing, electrocardiograms, neonatal transport and intensive care, respiratory intensive care, medical and surgical intensive care, administration, clinical and classroom instruction, home care, rehabilitation, and polysomnography. The Respiratory Therapy Program is accredited by the Commission on Accreditation for Respiratory Care (CoARC).

Mission Statement: **"To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs)."**

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.

PROGRAM LEARNING OUTCOMES
1. CREDENTIALING SUCCESS
2. PATIENT DATA AND EVALUATION RECOMMENDATIONS
3. EQUIPMENT MANIPULATION, INFECTION CONTROL, AND QUALITY CONTROL
4. INITIATION AND MODIFICATION OF THERAPEUTIC PROCESSES

List all supporting courses				
	PLO #1	**PLO #2**	**PLO #3**	**PLO #4**
RES 1103: RC Sciences	**X, I**	**X, I**	**X, I**	**X, I**
RES 1203: Non-Critical Ca	**X, I**	**X, I**	**X, I**	**X, I**
RES 1305: CP I	**X, I**	**X, D**	**X, D**	**X, D**
RES 1403: MV I	**X, I**	**X, D**	**X, D**	**X, D**
RES 1503: A&P	**X, I**	**X, D**		**X, D**
RES 1603: Critical Care	**X, I**	**X, D**	**X, D**	**X, M**
RES 1801: IM I	**X, I**	**X, D**		**X, D**
RES 2103: MV II	**X, D**	**X, M**	**X, M**	**X, M**
RES 2203: Neonatal RC	**X, I**	**X, D**	**X, D**	**X, M**
RES 2305: CP II	**X, M**	**X, M**	**X, M**	**X, M**
RES 2403: Cardio D&T	**X, D**	**X, D**	**X, M**	**X, M**
RES 2502: IM II	**X, D**	**X, M**		**X, M**

Assessment methods are all direct. All didactic examinations are paper/pencil and all competencies are performance evaluated one-on-one with students. Students complete two practice examinations to assist in preparation for NBRC credentialing exam after graduation and all graduate credentialing data is available to educational programs through the NBRC education portal.

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

All competencies and didactic learning provided to students in the program require preceptor and patient contact after laboratory competencies are completed. During clinical rotations, students are continuously evaluated in all 7 institutional outcomes with the following methods:

1. **Communication**: patient care and case study reporting on individual patients
2. **Critical Thinking**: didactic coursework and clinical rotations involving patient care
3. **Cultural Awareness**: clinical rotations are performed in multicultural, patient-care settings
4. **Information Literacy**: in-hospital patient care and case study reporting on individual patients
5. **Professionalism**: patient care and case study reporting on individual patients
6. **Quantitative Literacy**: patient care and case study reporting on individual patients
7. **Technology Literacy**: patient care and case study reporting on individual patients

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.

X☐ ILO #1 – Information Literacy

X☐ ILO #2 – Technology Literacy

X☐ ILO #3 - Communication

X☐ ILO #4 – Critical Thinking

X☐ ILO #5 – Quantitative Reasoning

X☐ ILO #6 – Cultural Awareness

X☐ ILO #7 – Professionalism

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.

Program Learning Outcomes	Course	Assessment Method and/or Data Source
1. *Credentialing Success*	*RES courses*	In-class Examinations, Laboratory Proficiencies, Clinical Proficiencies performed by preceptors
2. *Patient Data and Evaluation Recommendations*	RES courses	In-class Examinations, Patient Scenario Quizzes, Clinical Proficiencies performed by preceptors, Case Study Presentations
3. *Equipment Manipulation, Infection Control, and Quality Control*	RES 1103, 1203, 1305, 1403, 1603, 2103, 2203, 2305, 2403	In-class Examinations, Patient Care Scenario Quizzes, Laboratory Proficiencies, Clinical Proficiencies performed by preceptors, Case Study Presentations
4. *Initiation and Modification of Therapeutic Processes*	*RES courses*	In-class Examinations, Patient Care Scenario Quizzes, Laboratory Proficiencies, Clinical Proficiencies performed by preceptors, Case Study Presentations

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.

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

   X☐ Rubrics were shared with students.

   ☐ 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).
   Graduate Surveys are obtained from students upon graduation to assess effectiveness of college resources in the laboratory and classroom environment. Employer surveys are obtained 6-12 months after students graduate to assess entry-level skill competency in caring for patients. The National Board of Respiratory Care (NBRC) provides credentialing data on recent graduates of the program that is shared with the advisory committee. This data demonstrates student achievement on the Multiple Choice (TMC) and Clinical Simulation (CSE) Examinations. Our assessment cycle is to administer comprehensive final examinations at the end of each semester, continuous competency practice and evaluation in the laboratory throughout each semester on equipment and therapeutic modalities. Clinical practice and demonstration are also provided on a continuous basis during the year by preceptors and students are evaluated for proficiency with actual patients in the clinical setting. Two practice exams for the credentialing evaluation performed after graduation are purchased in the student's final semester.

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.
   Success is measured by the assessment goal of 60% of graduates will demonstrate proficiency in

respiratory therapy skills and competencies on the National Board of Respiratory Care (NBRC) Therapist Multiple Choice (TMC) Exam.
****Note: NBRC changed threshold to 60% from last year's threshold of 80%*

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

☐ 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.

Program Learning Outcomes	Assessment Results/Conclusion
1. *Credentialing Success*	2020 graduate credentialing success currently under evaluation- 6/9 graduates have taken and passed NBRC credentialing exams (68% of graduates have passed up to this date of **09/01/2020**, >60% threshold met.)
2. *Patient Data and Evaluation Recommendations*	2020 graduates: 9/11 students graduated with all competencies successfully completed. (82% graduated, 70% threshold met)
3. *Equipment Manipulation, Infection Control, and Quality Control*	2020 graduates: 9/11 students graduated with all competencies successfully completed. (82% graduated, 70% threshold met)
4. *Initiation and Modification of Therapeutic Processes*	2020 graduates: 9/11 students graduated with all competencies successfully completed. (82% graduated, 70% threshold met)

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.
1. Trajecsys, clinical documentation tool: clinical preceptors will evaluate students in real time on the same day the skills were performed instead of at the end of their clinical rotation at the facility. This capability enables clinical staff to address deficiencies in clinical skill performance immediately, rather than waiting until the end of the student's rotation.

2. Competency Mastery: Advanced basic clinical competencies to Extended Summer Term (Semester 1) to allow for student to perform in first clinical rotations instead of second rotations. Allows the student extended opportunities to master skills.

3. Extended Laboratory time on Fridays and after class on T/Th to gain confidence in skill proficiency and mastery.

4. Yearly student surveys of Respiratory Care Program are obtained for process improvement.

5. Clinical documentation of students by clinical preceptors: Early alert of deficiencies in competency completion.

7. What specific changes were implemented this year based on last year's results?
Clinical hours were changed from 3, 8-hour days to 2, 12-hour days. This limits exposure to COVID-19 environments and enables the students to utilize Fridays as a "flex" day for in-person,

one-on-one tutoring on campus that includes extra laboratory time to practice equipment competencies. Students that are placed on academic probation are required to attend tutoring sessions until academic proficiency is reached. Program instructors do a daily review of all difficult material and address student concerns at the time of instruction. Trajecsys, an electronic clinical documentation tool, was added to our clinical program to assure clinical competencies are documented in daily clinical rotations by both students and clinical preceptors. With this platform, clinical competencies are documented in daily rotations, students document daily care logs on patients, and surveys of facilities and preceptors required by CoARC can be digitally recorded in real time. With this documentation, deficiencies can be determined earlier and promptly corrected.

8. What specific budgetary resources are needed for your program based on your assessment results?
   1. Professional memberships for students and staff to the American Association of Respiratory Care (AARC)
   2. Basic and Advanced Life Support training for students and staff (BLS, ACLS, PALS)
   3. Continuation of access to Trajecsys by students and clinical staff for record-keeping purposes, documentation of the student's clinical proficiency of skill sets, and evaluation of clinical sites by the students.
   4. Laboratory exposure to capital equipment for manual manipulation and mastery of competencies by the students.

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.
   1. Program director is responsible for submitting Verification of Education and Official College Transcripts to the Arkansas State Medical Board (ASMB). ASMB issues a license after the NBRC TMC and CSE exams are passed by the graduate and credentials are awarded by the NBRC. Employers require a current and active license issued by the state for employment.
   2. The accrediting body for Respiratory Care, CoARC, requires and reviews an Annual Report of Current Status (RCS) submitted by the program director. Progress reports and action plans must be submitted for any thresholds or standards not met by program.
   3. Program faculty reviewed credentialing rates, graduate and employer surveys, and retention rates. Retention rates were 68% (< 70% threshold) for 2018. Action plan was written to include optional tutoring on T/Th after laboratory session and mandatory tutoring for all students placed on academic probation.

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.