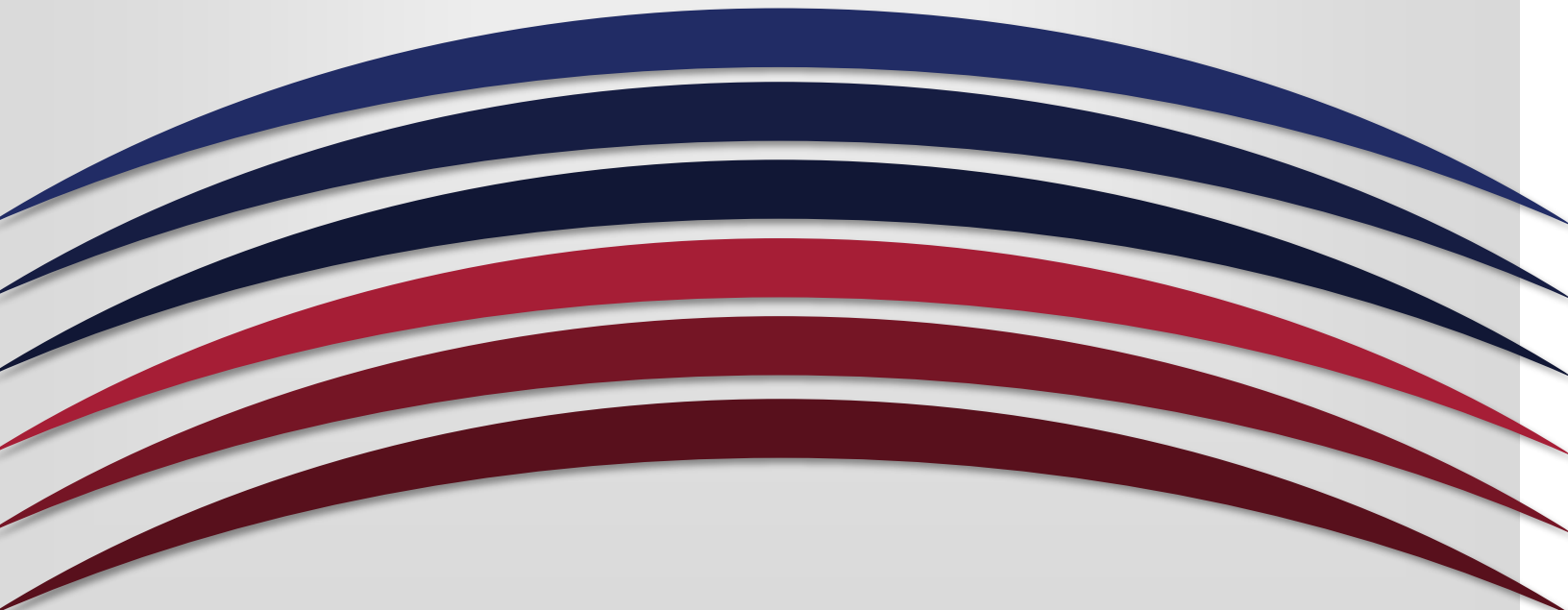


UNIVERSITY OF ARKANSAS PULASKI TECH

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: Baking and Pastry Arts
2. Name of individual compiling report: Jan Lewandowski
3. Date of submission: October 10, 2020
4. Academic year: 2019-2020
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 mission of the Culinary Arts and Hospitality Management Institute is to deliver education, experience and excellence through high quality academic programs that meet stakeholder needs and demands in a global market to achieve effective and efficient program delivery.

Department / Program Learning Outcomes

The Culinary department, consistent with the College's mission and the Division's objectives, encourages the success of its students in all technical fields and academic disciplines by promoting:

- Establish and maintain high standards of sanitation and food safety as established by the SERV SAFE® program.*
- Demonstrate proficiency in basic terminology and techniques for culinary arts and baking and pastry arts to include food preparation, presentation, and service.*
- Identify and demonstrate the concepts of recipe costing, purchasing, receiving, and issuing practices in food service operations.*
- Explain the characteristics, functions, and food sources of the major nutrients and understand and demonstrate nutritional cooking methods including how to maximize nutrient retention.*
- Communicate clearly and professionally, both verbally and in writing.*
- Develop strategies to improve business performance using creativity and problem-solving skills, based on operational theory and procedures.*
- Develop skills integral to success in the industry including guest service, supervisory management, the ability to work with others, and handling multiple tasks simultaneously.*
- Develop and apply ethical and sustainable hospitality industry policies.*

Concentration: Baking & Pastry Arts

- **Sanitation and Safety:** Demonstrate professionalism and sanitation practices as well as mise en place, organization, sense of urgency and timing in a professional kitchen.*
- **Basic Baking:** To apply the fundamentals of baking science to the preparation of a variety of products and to use and care for equipment normally found in the bake shop or baking area.*
- **Advanced Baking:** To develop more advanced decorating techniques and more complex preparation of pastry, confections and dessert products.*
- **Nutrition:** To describe characteristics, functions and food sources of major nutrients and how to maximize nutrient retention in food preparation and storage and to apply the principles of nutrient needs throughout the life cycle to menu planning and food preparation.*
- **Purchasing & Receiving:** To understand the overall concept of purchasing and receiving practices in quality foodservice operations, apply knowledge of quality standards and regulations governing food products to the purchasing functions and receive and store food and non-food items properly.*
- **Hospitality in the Baking & Pastry Industry** To develop an understanding of the hospitality industry and career opportunities in the field, investigate trade publications and professional organizations appropriate for continuing education and become familiar with the organizational structure and basic functions of departments within hospitality and foodservice establishments.*
- **Business and Math Skills:** To perform mathematical functions related to foodservice operations. Utilize standard weights and measures to demonstrate proper scaling and measurement techniques. Calculate a recipe conversion factor to make a desired quantity of a given recipe and compute the new ingredient quantities using the recipe conversion factor*

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.

1 – Introduced 2 – Developed 3 - Mastered	CUL 1301 Foodservice Sanitation	BAK 1301 Baking 1	BAK 1302 Basic Pastry	BAK 1303 Cake Decor	BAK 1304 Baking 2	BAK 1305 Candies	BAK 1306 Artisan Breads	BAK 1307 Centerpiece	BAK 2302 Adv. Pastry	BAK 2302 Adv. Wedding
Safety and Sanitation	1,2	1,2,3	1,2	2	2,3	1,2,3	2	2	2,3	2
Basic Baking		1,2,3	1,2,3	1,2,3	2,3		2,3	2	2	2
Advanced Baking		1	1,2	1,2	2,3	1,2,3		1,2,3	2,3	2,3
Nutrition		1	1,2		2		2		2,3	
Hospitality in Baking & Pastry		1	1	1	2,3	1		2	2,3	2,3
Purchasing and Receiving	1,2	1	1		2,3	1,2			2	2
Business and Math Skills		1,2,3	1		1,2,3	2	2,3	2,3	2,3	2,3

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.

- ☐ ILO #1 – Information Literacy
- ☐ ILO #2 – Technology Literacy
- ☐ ILO #3 - Communication
- ☐ ILO #4 – Critical Thinking
- ☐ ILO #5 – Quantitative Reasoning
- ☐ ILO #6 – Cultural Awareness
- ☐ 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. <i>Sanitation and Safety: Demonstrate professionalism and sanitation practices as well as mise en place, organization, sense of urgency and timing in a professional kitchen.</i>	CUL 1301 BAK 1302 BAK 2302	CUL 1301: Sanitation Final Exam (assessed from Culinary) BAK 1302: Basic Pastry Final Lab Score BAK 2302: Adv. Pastry Final Practical Sanitation Score
2. <i>Basic Baking: To apply the fundamentals of baking science to the preparation of a variety of products and to use and care for equipment normally found in the bake shop or baking area.</i>	BAK 1301 BAK 1302 BAK 1303 BAK 1306	BAK 1301: Baking 1 Final Exam BAK 1301: Baking 1 Final Practical Score BAK 1302: Basic Pastry Final Exam BAK 1302: Basic Pastry Final Practical Score BAK 1303: Cake Decor Final Exam BAK 1303: Piping Practical BAK 1306: Artisan Breads Final Exam BAK 1306: Artisan Breads Final Practical
3. <i>Advanced Baking: To develop more advanced decorating techniques and more complex preparation of pastry, confections and dessert products.</i>	BAK 1305 BAK 1307 BAK 2302	BAK 1305: Candies & Chocolate Final Exam BAK 1305: Candies & Chocolate Final Confection BAK 1307: Centerpiece Cakes Final Practical BAK 2302: Adv. Pastry Final Practical Score BAK 2302: Adv. Wedding Piping Practical
4. <i>Nutrition: To describe characteristics, functions and food sources of major nutrients and how to maximize nutrient retention in food preparation and storage and to apply the principles of nutrient needs throughout the life cycle to menu planning and food preparation.</i>	BAK 1302 BAK 2302	BAK 1302: Basic Pastry Healthy Dessert Quiz BAK 2302: Adv. Pastry Judges Packet- Nutritional Analysis of Plated Dessert
5. <i>Purchasing & Receiving: To understand the overall concept of purchasing and receiving practices in quality foodservice operations, apply knowledge of quality standards and regulations governing food products to the purchasing functions and receive and store food and non-food items properly.</i>	BAK 1304	BAK 1304: Baking 2 Sous Chef Checklist
6. <i>Hospitality in the Baking & Pastry Industry: To develop an understanding of the hospitality industry and career opportunities in the field, investigate trade publications and professional organizations appropriate for continuing education and become familiar with the organizational structure and basic functions of departments within hospitality and foodservice establishments.</i>	BAK 2302	BAK 2302: Adv. Pastry Book Report
7. <i>Business and Math Skills: To perform mathematical functions related to foodservice operations. Utilize standard weights and measures to demonstrate proper scaling and measurement techniques. Calculate a recipe conversion factor to make a desired quantity of a given recipe and compute the new ingredient quantities using the recipe conversion factor</i>	BAK 1301 BAK 1306 BAK 2302	BAK 1301: Baking 1 Online Recipe Conversion BAK 1306: Artisan Breads Math Quiz #2 BAK 2302: Adv. Pastry Judges Packet: Calculated Recipes & Menu Pricing

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.

☒ 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).**

Reading checks and quizzes in the online Revel platform for the On Baking textbook or tests in Blackboard show areas or questions where students score lower. Faculty uses this information to determine what concepts may need review or practice in class.

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.**

Faculty meets at the end of each semester to review results of each assessment. Faculty discusses areas of weakness and ways to improve outcomes. Faculty also discusses strategies to strengthen foundation & knowledge in lower level classes to improve outcomes in advanced classes.

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

Assessments between different sections of the same course as well as anecdotal evidence used to make improvements if trends are evident.

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

Our program accreditation with the ACF ensures foundational knowledge & techniques are taught and assessed.

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
Sanitation and Safety: <i>Demonstrate professionalism and sanitation practices as well as mise en place, organization, sense of urgency and timing in a professional kitchen.</i>	<p>BAK 2302 Adv. Pastry Final Practical Sanitation Score: Conclusion: 9 out of 11 students scored 80% or higher for the sanitation & organization grade. Two students scored 60%.</p> <p>Analysis: Students performed well- it was a timed practical in a competition format. Most of the points taken were due to students going past their allotted time. The two students who did not meet 70% lost points for uniform deductions, improper handwashing or unorganized station. Continuous Improvement Action Plan: Continue assessment as is. Stress uniform, handwashing & cell phone usage during lab work.</p>
Basic Baking: <i>To apply the fundamentals of baking science to the preparation of a variety of products and to use and care for equipment normally found in the bake shop or baking area.</i>	<p>BAK 1301 Final Exam: 85% of students scored 70% or higher Conclusion: Assessment Goal/Threshold Met Analysis of Results: The majority of students performed well- there are 3 or 4 students who were encouraged to ask for accommodations due to learning difficulties but did not. All instructors gave a final review and a practice test available online for students.</p> <p>BAK 1301 Baking 1 Final Practical: 100% scored 80% or higher. Average Score: 87.4% Conclusion: Assessment Goal/Threshold Met Analysis of Results: All students showed competence in basic baking skills and time management skills when working in pairs to complete this exam.</p> <p>BAK 1303 Cakes and Cake Decorating Final Exam: 14 students scored 90% or higher and 90% of all students scored above 90%. Conclusion: Assessment Goal/Threshold Met Analysis of Results: Students were given material to study and were reviewed on all materials prior to the test. They were coached on key words to include in answers and descriptions.</p> <p>BAK 1306 Artisan Breads Final Exam: 15 (83.3%) scored 70% or above, 3 (16.7%) scored below 70%. Average Score: 85.2% Conclusion: Assessment Goal/Threshold Met Analysis of Results: For the most part, students seem to grasp the material covered in this class.</p> <p>Artisan Bread Final Practical: The average score for final practical is 95%. Conclusion: Assessment Goal/Threshold Met Analysis of Results: The students did well overall on dough formulation and bread production. Students worked in groups, so the report shows only 3 evaluations because students were evaluated as a group. This result is higher than average compared to past semesters due to the decorative element scores. Students were unable to complete that part of practical due to school cancellation and all points were awarded.</p>
Advanced Baking: <i>To develop more advanced decorating techniques and more complex preparation of pastry, confections and dessert products.</i>	<p>BAK 1305 Candies & Chocolate Final Confection Practical: 100% of students scored an average of 89.6%. Conclusion: Assessment Goal/Threshold Met Analysis of Results: Students successfully completed the practical. The final practical format was changed this year to a comprehensive format (all techniques learned in the class were utilized); extra credit was given for a sugar or chocolate decoration, which may have skewed the results since most students took advantage of this option. Emphasis was placed on portioning, consistency and presentation of confections.</p> <p>BAK 1307 Centerpiece Final Practical and BAK 2303 Adv. Wedding Final Practical: 88% of the students scored 70% or higher Conclusion: Assessment Goal/Threshold Met Analysis of Results: The majority of students successfully created cakes for their final practical to be displayed in the sugar art show.</p>



<p>Nutrition: To describe characteristics, functions and food sources of major nutrients and how to maximize nutrient retention in food preparation and storage and to apply the principles of nutrient needs throughout the life cycle to menu planning and food preparation.</p>	<p>BAK 2302 Judges Packet: Nutritional Analysis: 100% of students scored 70% or better on the nutritional component of their final practical. Conclusion: Assessment Goal/Threshold Met Analysis of Results: Nutritional balance & evaluation was judged as part of their competition dessert plates; desserts were evaluated through portion size and balance of component ingredients. All students were successful in this regard.</p>
<p>Purchasing & Receiving: To understand the overall concept of purchasing and receiving practices in quality foodservice operations, apply knowledge of quality standards and regulations governing food products to the purchasing functions and receive and store food and non-food items properly.</p>	<p>All Baking Classes - Discuss and analyze the importance of sanitation and HACCP procedures that affect receiving and issuing of goods in a foodservice operation. Student Lab Score for Sous Chef Position (rotating position): Sous Chef are responsible to gathering/storing ingredients, maintaining temperature logs of refrigerator/freezer and ensuring proper storage of finished product. Students turn in a checklist. Results will be assessed: 2020-2021</p>
<p>Hospitality in the Baking & Pastry Industry: To develop an understanding of the hospitality industry and career opportunities in the field, investigate trade publications and professional organizations appropriate for continuing education and become familiar with the organizational structure and basic functions of departments within hospitality and foodservice establishments.</p>	<p>BAK 2302: Final Book Report: Average score for book report is 90%. Conclusion: Assessment Goal/Threshold Met Analysis of Results: 8 out of 9 students scored in the 90-100% range; only 1 student did not complete the assignment as directed and scored in the 40-49% range. Baking 2 Bakery Business Plan: 100% of students scored 80% or higher. Conclusion: Assessment Goal/Threshold Met Analysis of Results: The results are based on 6 students who did complete the assignment. Students were required to create a business plan that included a mission statement, market analysis and menu with pricing for a bakery they conceived</p>
<p>Business and Math Skills: To perform mathematical functions related to foodservice operations. Utilize standard weights and measures to demonstrate proper scaling and measurement techniques. Calculate a recipe conversion factor to make a desired quantity of a given recipe and compute the new ingredient quantities using the recipe conversion factor</p>	<p>Artisan Breads Math Quiz #2 Results: 90% of students scored 80% or higher. Conclusion: Assessment Goal/Threshold Met Analysis of Results: Students were successful in this quiz. Students practice the skills used by calculating formula's each week for the lab work.</p>

1. 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.

The instructors decided that repetition is the most effective tool for our students. For our beginner level courses where there is a large amount of knowledge to retain, all of the quizzes can be repeated until desired score is achieved and a practice final exam that can be taken repeatedly is available in Blackboard a few weeks before the final exam. This change has improved exam scores for the 2019-2020 school year for the student who took advantage. For practicals, we added additional lab opportunities for Adv. Pastry for students to practice and receive feedback, which improved student confidence and performance in the plated dessert practical.

A planned improvement for our program to encourage practice and use of technology will be the use of hybrid courses. This format will be used in the evening sections of baking classes in 2021. With the hybrid format, students will complete the required "lecture" hours through online coursework and attend four-hour labs. Students who work or take more than one class per day to reduce travel will benefit from shorter in-class times.

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

The pandemic that interrupted the Spring 2020 semester showed needed improvement with computer literacy and use of technology. Students also missed hands-on sections of coursework with the semester cut short. We have a diverse group of students and many struggled to navigate Blackboard plus students lacked resources & ingredients to complete labs at home. This semester, we moved all of our coursework into Blackboard and required the use of the Revel platform for our On Baking textbook, which is used in a few of our classes. It has been a big adjustment for students and faculty, but we feel that this will better prepare our students for the industry, especially management positions where these skills are essential. We frontloaded our lab work to cover all learning objectives during the first 4-6 weeks of the semester so students won't miss out on any learning objectives.

Faculty observed and discussed that students lacked confidence in basic techniques only covered once in class. We revamped the lab schedules for the following courses to include repetition of techniques:

- a. Baking 1: Cover all learning objectives in the first half and added a midterm practical. The second half will reinforce the objectives and varied use of techniques before the final practical.*
- b. Basic Pastry Techniques, Candies & Chocolates, Adv. Pastry Techniques: Cover all learning objectives in the first 3-4 weeks, then students will work in rotations to practice the same techniques using different recipes. Students will have repeated opportunities to practice and see the techniques/products on a weekly basis.*
- c. Cake Décor: curriculum was adjusted to include additional baking formula's and pastry techniques to expand on techniques that are not fully covered in the Basic and Adv. Pastry classes.*

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

The opportunity to rent or check out laptops or computer equipment would be helpful to many of our students. Students who work or live a farther distance away cannot always utilize the computer lab.

4. 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.

n/a

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 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.