

# CNM ANNUAL STUDENT LEARNING ASSESSMENT REPORT

*Due to the Student Academic Assessment Committee by October 15*



## PART 1: REPORT INFORMATION

Report Year and Contact Information			
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<b>Academic Year</b>	<b>Contact Person</b>	<b>CNM Email</b>	<b>CNM Office Extension</b>

  

Subject of this Report
BIT--CULARTS_AAS--Culinary Arts Advanced Baking and Pastry Concentration

## PART 2: CONTEXT IN WHICH THE ASSESSMENT TOOK PLACE

<b>Program/Area Highlights and Successes</b> (Wherever applicable, include course completion rates, job placement outcomes, and licensing examination pass rates. See the program information dashboard at <a href="https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx">https://livecnm.sharepoint.com/sites/Dashboards/SitePages/Program%20Information%20Dashboard.aspx</a> (access restricted to CNM employees) and other reports at <a href="https://www.cnm.edu/depts/opie">https://www.cnm.edu/depts/opie</a> .)
<p>The Baking and Pastry Program at Central New Mexico Community College takes great pride in offering excellent quality of instruction and attention to detail to the science of baking and pastry arts.</p> <p>The program provides focused, in-depth study of the principles, methods and skills necessary to become a bakeshop professional. The students first spend time learning the basics of culinary arts, such as knife skills, classic methods and techniques, and presentation, all of which are used in the hot food kitchen as well as the bakery. Then the student moves into the bakery to build a foundation of classical baking and pastry; moving on to more advanced pastry/confectionery techniques.</p> <p>The Advanced Baking and Pastry course puts focus on chocolate work, sugar work, Isomalt, advanced tortes, gum paste, marzipan, plated desserts and soufflés. This course better prepares students for the competitive field of pastry arts.</p> <p>Our in-depth program and lab classes expose our students to the complete learning experience, starting with the most basic baking skills and moving through to exciting advanced techniques. Our program is designed and created to meet the strict American Culinary Federation curriculum. We are excited to be a significant part of future pastry professionals.</p>

## **Changes Implemented During the Past Year in Support of Student Learning**

We closely follow the American Culinary Federation Baking Curriculum – using the required curriculum to guide the direction and production of all the baking classes.

Baking Faculty completed standardizing curriculum during Fall 2016 and Spring 2017 for the beginning, intermediate and advanced baking classes. All Baking classes have structured to be consistent, uniform and standardized which allows all classes to mirror each other with production and weekly instruction. This assures all students receive the same direction and instruction through the baking program.

### Beginning & Intermediate Baking:

Faculty instituted the Feedback-Critique Sheet Form for all beginning and intermediate Baking students to use with all completed baked products. It is used as an evaluation and feedback tool for all baked items students have produced in 1130/1132 Baking Lab classes.

Recent focus has been on baking trends which require dietary restrictions. A visiting chef who specialized in Vegan and Gluten-Free baking spent a day going over the necessary components for baking completely vegan with the students.

Sourdough sponges and artisan breads have been emphasized with the addition of grinding grains to make fresh flours as well as hosting guest speakers who specialize in 100% naturally leavened breads to demonstrate their techniques.

The Baking & Pastry Chef Instructors have advanced their skill sets and teaching abilities by taking Professional Development Trips each year. Chef Logan has taken many seminars with Culinary and Pastry Arts focus at the American Culinary Federation National Convention. Chef Schulte took a professional level course concentrating in the art of dough lamination at The San Francisco Baking Institute to further expand her knowledge for teaching these skills.

### Advanced Baking and Pastry:

Faculty instituted a Critique and Self Grading sheet to allow the students to self-grade their performance, and give notes and feedback about what they learned before presenting their finished products to the instructor(s).

Focus has continued to emphasize and teach trends of the industry as well as classical pastry techniques and how they relate to the hands-on skill set taught in the advanced level course.

The Baking & Pastry Instructors have worked together to create a new Advanced Level Baking and Pastry Course to be offered in the Fall of 2018. This course will be titled Retail & Restaurant Bakery Operations. It will take some elements from the one (current) advanced course currently being offered and allow each course to expand upon the techniques taught during each class to expand what the advanced level students are taught.

Baking Lab classes are a part of the culinary Sustainability Programs. Students and Staff composting products daily and now recycling as well. A program developed in-house by Culinary and Hospitality professionals has the usable products being collected by a local company which then provides economical and efficient organic waste collection services for food service and processing facilities in central New Mexico. This program takes the food that would ordinarily go to the landfill and produce methane – a potent greenhouse gas – and turn it into compost for our local farmers and gardeners. Our method for ordering supplies for the labs continues to improve. This effort included cleaning and organizing the labs and the main storeroom areas, as well as specific

responsibilities for the Storeroom Supervisor, the Instructional Technicians, and the Instructors. Our new Lab Supervisor has begun the use of a template for weekly food ordering and checks with each instructor one week in advance of placing the order to ensure we will have everything we need for all classes. The results have resulted in more efficient utilization of ingredients, lower food cost, and time saving.

The programs in culinary arts have begun a much more effective recycling and composting program that is taught to students so they can learn the benefits of ‘going green.’ We fully implemented our green-sustainability initiative with a contract with a company that provides us with Green Compost Bins each week. We have found that a large percentage of the culinary arts program waste is compostable, or recyclable. The amount of garbage being sent to the landfill is now only a fraction of what it was just a few years ago. In terms of composting, during the first six months of 2017, [we have already kept 49.3 cubic yards of compostable waste out of the landfill!](#) Between 2015 and 2016, CNM reduced electricity emissions by 2,774,283 kilowatt hours, amounting to \$784,124 in cost savings. This total savings is apparently due to a number of energy conservation programs CNM has implemented. The college is committed to reducing our carbon footprint and to serving our students through leading by example. Culinary Arts is saving money by using less plastic ware and plastic garbage can liners. Our efforts to recycle and compost have proven to be a success and a ‘way of life’ for future cooks, bakers, chefs, and owners, while demonstrating to them the money-saving benefits of being a ‘Green Property.’ We have now added Blue Bins for all paper, plastic, and aluminum, in addition to the Grey – Garbage, and Green – Compostable bins.

To this end, we have dramatically lowered the amount of garbage being sent to the landfill. We are saving money on the purchase of plastic garbage can liners and plastic ware, while improving the sustainability of the planet, and teaching the future cooks, bakers, chefs, and owners of the benefits of being a Green Property.

### PART 3: REPORT ON ASSESSMENT OF STUDENT LEARNING

Assessment Method	Type of Assessment Tool	Population or Course(s) Assessed	Graduate Learning Outcome(s) Assessed	Mastery Level (E.g., “Minimum score of 3 on a rubric scaled 0-4” or “Minimum score of 75%”)	Targeted % Achieving Mastery	Outcome
Practical Testing	Direct & Internal	CULN 1110, CULN 1112, Fall 2017 and Spring 2018.	<b>Outcome #1 (Cooking):</b> Demonstrate the ability to prepare a variety of hot and cold food products according to standard recipes as well as application of basic cooking methods using proper knife, tool, and equipment techniques.	Practical Cooking Rubric scaled 0-4 Minimum score of 3, or 75%.	85%	Target met

Practical Testing	Direct & Internal	CULN 1132, CULN 1130, CULN 1132	<b>Outcome #2 (Baking Fundamentals):</b> Demonstrate knowledge of the fundamentals of baking science by preparing a variety of products according to standard recipes using proper hand, tool, and equipment techniques.	Practical Cooking Rubric scaled 0-4 Minimum score of 3, or 75%.	65%	Target not met
Practical Testing	Direct & Internal	CULN 1110, CULN 1112, CULN 1132,	<b>Outcome #3 (Safety and Sanitation):</b> Demonstrate hygiene and sanitation standards in a kitchen setting. Describe basic principles of sanitation, safety, and procedures to determine and monitor critical control points in a professional food service setting.	Practical Cooking Rubric scaled 0-4 Minimum score of 3, or 75%.	90%	Target met
Practical Testing	Direct & Internal	CULN 2232	<b>Outcome #3 (Safety and Sanitation):</b> Demonstrate hygiene and sanitation standards in a kitchen setting. Describe basic principles of sanitation, safety, and procedures to determine and monitor critical control points in a professional food service setting.	Practical Cooking Rubric scaled 0-4 Minimum score of 3, or 75%.	97%	Target met

Written Exam ServSafe National Certification Exam	Direct & External	HT 1003	Demonstrate knowledge of Food Safety and Sanitation by <b>becoming a Certified ServSafe Manager by passing the written exam, with a score of 75% or higher. This exam is accredited by the American National Standards Institute (ANSI).</b>	<b>Competency area:</b> ServSafe Food Manager Standardized Exam (total score)	68%	Target not met
Dining Room Service Rubric	Direct & Internal	CULN 2216	Final non-banquet assessment	Rubric scaled 0-4 Minimum score of 3, or 75%.	93%	Target met
ManageFirst Hospitality Human Resources Exam	Direct & External	HT 2201	Outcome #5 Describe and evaluate organizational structures, leadership styles, and personnel management techniques as they apply to a wide variety of hospitality operations.	Performance Level 75%  *Did not administer exam in Fall 2017; Section Cancelled.	65%	Target not met
ServSafe NM Alcohol Server Training Exam	Direct & External	BEV 1160	Outcome #6 Identify styles, production methods and service of a variety of alcoholic and non-alcoholic beverages; explain laws and procedures related to responsible alcohol service.	Performance level 75% at success rate	77%	Target met

Targeted exam/homework questions	Direct & External	HT 2215 (objectives 1-3).	Outcome #7 Purchasing and Receiving: Describe and evaluate procedures for proper receiving, storage, and control of food and non-food items; apply knowledge and quality standards and regulations to purchasing decisions. Perform mathematical operations associated with purchasing and receiving.	Rubric Scaled 0-4 – 75% scoring 3 or 4	78%	Target met
ServSafe Food Manager Standardized Exam	Direct & External	CULN 1003, CULN 1103 Domain score for objective 4.	Identify standards for safely inspecting and grading of meats, eggs, dairy products, fruits and vegetables.	75% success rate	50%	Target not met

**Summary of Assessment Findings**

According to the percentage meeting target as reported, baking students in the beginning and intermediate classes were at 65.9% of meeting the target, which is in fact below the required standard of 75% of students meeting the target.

Advanced Baking students were above the 95% in meeting the targeted goals.

**Interpretation of Assessment Findings**

The data for CULN 1130 and 1132 from Spring 2018 and CULN 1130 only in Fall 2017. That essentially makes Spring 2018 sample size 2x Fall 2018, and results are skewed toward Spring’s observations. If we either assume Fall 2018 1130 section performed similarly to their 1132 number, or if we only count performance in CULN 1132, the percentage of students meeting target goes up to around 71% either way.

Advanced baking students targeted percentages rose significantly demonstrating the required skills for placement in the industry.

**Action Plan in Support of Student Learning** (Describe changes to be made that are based at least in part on the assessment interpretation. If the assessment did not yield useful information, describe changes to be made in the assessment methodology and/or criteria.)

Since this is self-reported data based on instructor observation there is some variation in how instructors assess competency in the baking labs.

Faculty will work on normalizing Lab rubric evaluations with the potential of incorporating the revisions into Fall 2019 classes.

In addition, faculty will have the opportunity to discuss what standards they are looking for in assessing a “2” or “3” level of achievement and make sure they are in agreement with assessment measures. This will help to ensure that the rubric standards are being followed in the same way by each instructor.

Advanced baking and pastry students will be exposed to the Retail baking industry with the implementation of a newly developed class set for Fall 2018. This class has been developed and will continue to be refined as instruction continues.

***Please select all of the following that characterize the types of changes described in the above action plan:***

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> Assessment criteria revision | <input type="checkbox"/> Assessment methodology revision         | <input type="checkbox"/> Assignment revision     |
| <input type="checkbox"/> Budgetary reallocation                  | <input type="checkbox"/> Change in teaching approach             | <input type="checkbox"/> Course content revision |
| <input type="checkbox"/> Curricular Revision                     | <input checked="" type="checkbox"/> Faculty training/development | <input type="checkbox"/> Process revision        |

Recommendations, Proposals, and/or Funding Requests	Budget Needed
Add NM Food Handler online course and assessment to CULN 1100 because students are not performing to standard on ServSafe Manager Food Safety exam. The state of NM Environment Dept. will soon require all foodservice establishment handlers to be ANSI certified.	Student course fee of \$20 to CULN 1100

**PART 4: REMAINING YEARS IN CURRENT ASSESSMENT CYCLE PLAN** (including any revisions) – **OR -- UPCOMING ASSESSMENT CYCLE PLAN** (if this was the final year)

<b>Years of Full Cycle</b>	<b>Next Year's Assessment Focus</b> (Describe how the next planned assessment is expected to provide information that can be used toward improving student learning.)
2016-2022	Add NM Food Handler online course and assessment to CULN 1100 because students are not performing to standard on ServSafe Manager Food Safety exam. The state of NM Environment Dept. will soon require all foodservice establishment handlers to be ANSI certified.

<b>Graduate Learning Outcomes to Be Assessed</b>	<b>Years in which Assessment Is Planned</b>	<b>Population/Courses to Be Assessed</b>	<b>Planned Assessment Approach</b>
Demonstrate the ability to prepare a variety of hot and cold food products according to standard recipes as well as application of basic cooking methods using proper knife, tool, and equipment techniques	2017-2022	Culn 1110	Practical Finals utilizing standardized rubrics (direct/internal).
Demonstrate knowledge of the fundamentals of baking science by preparing a variety of products according to standard recipes using proper hand, tool, and equipment techniques.	2017-2022	Culn 1130, 1132	Critique Sheets/Instructor Feedback Form Practical Finals utilizing standardized rubrics (direct/internal).
Demonstrate hygiene and sanitation standards in a kitchen setting. Describe basic principles of sanitation, safety, and procedures to determine and monitor critical control points in a professional food service setting.	2017-2022	Culn 1003, 1130, 1132	ServSafe Standardized Exam (direct/external) Practical Finals utilizing standardized rubrics (direct/internal)