



**Academy of Arts, Careers and Technology (AACT)
Culinary and Hospitality Academy
2021/2022
Baking 1 Information**

Instructors Name and Contact Information:

Fred Wright MCFE, CEC, WCEC, AAC.

Email: fwright@washoeschools.net

Office 775-327-3937

Office location 380 Edison Way Suite 101 RM 373 (inside kitchen) Reno NV 89502

Office hours 6:30am-8:00 and 3:00-3:30 Daily or by appointment

- Link to a brief academy video. <https://youtu.be/s2wc-B7oNEI>

Course Purpose

The purpose of Baking 1 is to train students to apply hands-on skills and knowledge in the food service industry. The program will begin to prepare students for an entry-level position within the baking and pastry industry by introducing topics such as kitchen safety, sanitation, and nutritional concepts. Students will also apply technical skills by operating commercial equipment, preparing various baked goods and formulas, and performing various roles within a retail bakery operation. Upon completion of the Baking 1 students will be able to continue within the baking pathways, in Baking 2.

This industry is one that makes a \$1,000,000 a minute, with the current and projected growth of tourism and hospitality business. The demand continues to be great for qualified, food and beverage management graduates with motivation, experience and formal education. By examining real life situations related to bakery operations, the students can make decisions based on knowledge of the theory, rather than being told what to do.

Course Objectives

- 1) This class supplies the opportunity for students to experience the use, maintenance, and safety procedures of contemporary Bakery Arts production facility and equipment
- 2) The program affords the student the opportunity to follow current safety and sanitation procedures as they relate to safe food production. As part of the curriculum, Food Safety Handler and Manager Certification, will be offered and presented as a course goal.
- 3) Students will be presented with the procedures and practice of industry safety standards as related to fire prevention and requirements of Safety Data Sheets (SDS) building a foundation to supply protection for guests and peer students in production areas. Production plant safety will be followed at all times.
- 4) Current procedures and equipment, as well as food supplies, will be provided to students to produce quality and safe bakery products under the supervision of licensed and certified instructors. Competency of power food processing equipment will be taught, practiced and evaluated.

Baking 1 2021-2022 Open House

- 5) The use of hand tools, will be taught and tested to insure proper use and adherence to personal safety standards as prescribed by industry and local laws. Accuracy and performance, will be practiced to a point of continual student efficacy in equipment handling.
- 6) Production stations will be maintained and improved by student practice in relation to cleanliness and industry standard order.
- 7) Students will have the opportunity to demonstrate learned and accepted bakery standards I relation to quality baked product production.
- 8) The understanding of ingredients: flours; dairy; egg products; shorting; sugars; chemical and natural leavening agents; yeasts; garnishes and toppings, to present quality baking products.
- 9) A vast selection of fruits will be presented for garnish and product enhancement toward industry norms.
- 10)An opportunity will be supplied to all continuing students to produce breads; pastries; cookies; cakes; desserts; candies; breakfast items; as well as many healthy food baked accompaniments.
- 11)An opportunity will be supplied to all continuing students to produce: breads; pastries; cookies; cakes; desserts; candies; breakfast items; as well as many healthy food baked accompaniments.
- 12)There will be an emphasis placed on finishing, decorating, garnishing of baked products with an artistic and self-expression goal in mind.
- 13)An emphasis will be placed on bakery production ahead of time by the use of varied storage technique including preservation, refrigerated holding, and freezing.
- 14)Standards of time management in relation to preparation, baking. Holding and shelf life will be followed in all lab production activities.
- 15)The principles of heat dynamics and chemical reaction in baked products will be presented and followed throughout the class activities.
- 16)Students will have the opportunity to learn the principles of the recipe and formula manipulation as they prepare varied items in many levels of quantity size and appearance. Many testing procedures will be used to ensure quality product production as well as tasting and evaluation methods
- 17)The introduction of job and life skills within the food production industry will be a major goal of all assignments and activities.
- 18)Opportunities will offered for social, community, regional, and national conferences and competitions with the use of offered skills taught in all activities.

Class Outline

Unit 1 Professionalism

Sanitation Refresher
Bakers Chefs and Restaurants
Bread Making Since Ancient imes
Refined Sugar and the Art of
Confectionery
The Birth of the Bakery and
restaurant
The Late 19th Century—Escoffier
and Cuisine Classique
The Mid-20th Century—Point and
Nouvelle Cuisine

Return to Craftsmanship and the
Artisan Bread Movement
The Late 20th and Early 21st
Centuries—An American Culinary
Revolution
The Bakeshop and foodservice
operation
The Professional Pastry Chef and
Baker

Unit 2 Tools and Equipment for the Bakeshop

Selecting tools and equipment
Hand tools
Knives

- Measuring and portioning devices
- Strainers and Sieves
- Cookware and Bakeware

Unit 3 **Principles of Baking**

- Mixing Methods and Techniques
- The Importance of Gluten
- The Importance of Moisture
- Heat Transfer and the Science of Baking
 - Conduction
 - Convection
 - Radiation
- Baking and Cooking Methods
- The Baking Process
 - Stages of Baking
 - Fats Melt
 - Gases Form
 - Gases Are Trapped
 - Microorganisms are killed
 - Starches Gelatinize
 - Proteins Coagulate
 - Water Evaporates and Gases Escape
 - Sugars Caramelize
 - Carryover Baking Occurs
 - Staling Begins
 - Sensory Science
 - Factors Affecting Perception of Flavors
 - Compromises to the Perception of Taste
 - Describing Aromas and Flavors in Food

Unit 4 **Bakeshop ingredients**

- Flours
- Sugars and Sweeteners
- Fats
- Milk and Dairy Products
- Eggs
- Thickeners
- Fruits
- Flavorings

Unit 5 **Mise en Place**

- Formulas and Recipes
 - Baking percentage
- Measuring ingredients
- Formula Conversions

- Preparing equipment and Ingredients

Unit 6 **Quick Breads**

- Chemical Leavening Agents
- Mixing Methods
 - Biscuit Method
 - Muffin Method
 - Creaming Method

Unit 7 **Yeast Breads**

- Yeast
- Stages of yeast production
- Artisan Breads
- Yeast bread procedure
 - Straight dough method
 - Sponge dough method
 - Old dough method
 - Starter dough method
- Enriched yeast dough

Unit 8 **Pies and Tarts**

- Crust
 - Flaky
 - Mealy
 - Sweet tart dough
 - Crumb
- Filling
 - Cream pie
 - Cooked fruit filling
 - Baked fruit filling
- Assembly
- Fruit tarts

Unit 9 **Laminated Dough**

- Preparing laminated dough
 - Dough
 - Roll-in
- Puff Pastry
- Yeast-raised laminated dough
 - Croissants
 - Danish
- Pate Choux

Unit 10 **Cookies and Brownies**

- Mixing Methods
 - Creaming method
 - Sponging method
- Types
 - Drop cookies
 - Icebox cookies
 - Bar cookies
 - Sheet cookies
 - Cutout cookies
 - Piped cookies

Unit 11 **Cakes and Icing**

Understanding ingredients

Mixing methods

Creaming

Two-stage

Foam

Icing

Buttercream

Fudge Icing

Fondant

Glaze

Royal Icing

Students have been working on understanding ingredients including a flour protein test and an sugar experiment. The syllabus and current information are available on your students teams.