FBM A115: FUNDAMENTALS OF FOOD PRODUCTION

Item	Value
Curriculum Committee Approval Date	03/06/2024
Top Code	130710 - Restaurant and Food Services and Management
Units	3 Total Units
Hours	90 Total Hours (Lecture Hours 36; Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

This course introduces students to the fundamentals of food preparation and cooking techniques, as well as the identification and safe usage of commercial kitchen equipment. Students will apply safety and sanitation principles to food production and equipment handling. Not required for Culinary Arts students. Hospitality dress standards are required. Formerly FSM A150. PREREQUISITE: FBM A102 or FSM A160 or concurrent enrollment. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Apply all standard cooking techniques to a variety of foods, identifying and safely utilizing a variety of commercial cooking equipment while demonstrating knowledge of safety and sanitation principles in professional kitchen work.

Course Objectives

- 1. Identify, properly operate, and maintain commercial cooking equipment and hand tools.
- 2. Demonstrate the application of all standard cooking techniques to create sauces; soups; salads and salad dressings; vegetables; grains; poultry, meat, and seafood dishes; breads; cakes; pies; cookies; and ice cream.
- 3. Demonstrate safe work habits, identify safety hazards, and employ preventative safety measures.
- 4. Maintain positive working relations with others and cooperate through teamwork to complete projects.
- 5. Demonstrate proper kitchen sanitation procedures and good personal hygiene.
- 6. Identify a wide array of products and cook these using appropriate techniques.
- 7. Practice food sustainability through correct use of food products and the appropriate disposal, recycling, or composting of unusable products.

Lecture Content

Food safety and orientation Foodborne illness, and food safety Food selection and evaluation Sensory evaluation of food products using descriptive terms Heating and equipment Energy transfer Food preparation basics Cutlery techniques, measuring ingredients, and mixing techniques Meat, poultry, fish, and shellfish Types of meats, poultry, and fish Composition Purchasing guidelines Preparation techniques Storage Milk and cheese Composition and purchasing Types/classifications of milk and cheese Food preparation Storage Eggs Composition of eggs and purchasing Preparation Storage Vegetables and fruits Classification Composition and purchasing Preparation and storage Enzymatic oxidative browning Vegetable pigments Cereal grains, flours, and pastas Composition and uses Preparation and storage Starches and sauces Sources of starch and structure Starch characteristics, gelatinization, gel formation, retrogradation, dextrinization, and modified sauces Sauces thickened and un-thickened Flour and flour mixtures Quick breads, preparation, and sensory characteristics Yeast breads, preparation, types, and sensory characteristics Cakes, preparation, types, and sensory characteristics Pastry, preparation, types, and sensory characteristics Fats and oils functions of fats in foods Types of fats Food preparation with fats

Lab Content

Identify and practice proper techniques of sanitation, safety, and work simplification which relate to food production and service. Responsibilities of food production area and personnel Students will be able to safely use all equipment generally used in quantity food preparation Demonstrate understanding of food production to obtain good quality food with high nutrient content Identify specific techniques of preparation which conserve nutrients Identify specific techniques of service which conserve nutrients Relate the principles of food chemistry to the preparation of food in small and large quantity The student will identify the basic component parts of food groups, additives, seasoning and spices, flavoring Familiarize the student with chemical and physical properties of food Demonstrate basic knowledge of food preparation terms and use of weights, measures and equivalents, kitchen tools, and utensils Food preparation terms Identify small tools and equipment Identify commercial kitchen equipment Demonstrate ability to properly use and maintain commercial kitchen equipment Demonstrate ability to adjust and use standardized recipes Interpret preparation of recipes accurately Define standardized recipe and illustrate its importance List components of standard recipe Adjust recipes using factor method and conversion tables Demonstrate familiarity with weights and measures used in recipes Knife skills Ability to properly identify and produce vegetable cuts. Prepare foods using a variety of methods and techniques Prepare food products from each food classification and standards for each product pre pared, and evaluate product against this standards Prepare and evaluate other products as assigned Demonstrate the preparation techniques and cooking methods of the following Sauce Soups Salads Eggs Vegetables Grains Potatoes Pasta Poultry Meat Seafood Bread Cakes, pies, and cookies Perform the following food tests Vegetable blanching using acids and alkaline solutions AP / EP yield tests Cooking yields of grains Spice tastings Butchers yield test Shrinkage yield of poultry and meats Utilization of scraps to make stocks and other dishes Creating emulsions and fixing broken emulsions Comparing results in cooking times for eggs Utilization of different fats for cooking and baking Identify and use standards to judge quality of food produced List and explain common factors used to judge the quality of food Define standard portion and illustrate methods for achieving portion control Demonstrate use of portion control techniques Organize

and plan laboratory assignments utilizing standardized recipes, timing, and equipment lists effectively

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

Instructional Techniques

Lecture and laboratory to demonstrate food preparation.

Reading Assignments

Students will spend 2.5 hours a week on chapter reading and lab production reading.

Writing Assignments

No writing assignments outside of out-of-class assignments listed.

Out-of-class Assignments

Students will spend 2 hours a week on chapter homework, lab reports and evaluation, production standards, standardize recipes and costing.

Demonstration of Critical Thinking

Demonstration of use of equipment, product preparation, work organization, and final product; written quizzes and exams; extension of recipes.

Required Writing, Problem Solving, Skills Demonstration

Written production standards, laboratory evaluation reports, written semester project.

Eligible Disciplines

Culinary arts/food technology (food service, meat cutting, baking, waiter/w...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience. Nutritional science/dietetics: Masters degree in nutrition, dietetics, or dietetics and food administration OR bachelors degree in any of the above AND masters degree in chemistry, public health, or family and consumer studies/home economics OR the equivalent. (Note: A bachelors degree in nutrition, dietetics, or dietetics and food administration, and certification as a registered dietician, is an alternative qualification for this discipline.) Masters degree required. Title 5, section 53410.1 Restaurant management: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Brown, Amy. Understanding Food: Principles and Preparation,, 6th ed. Cengage, 2018