

CA A205: CULINARY & BAKING - SPECIALTY DIETS

Item	Value
Curriculum Committee Approval Date	10/05/2022
Top Code	130630 - Culinary Arts
Units	2 Total Units
Hours	90 Total Hours (Lecture Hours 18; Lab Hours 72)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S)

Course Description

This course will take the basic culinary/baking knowledge to the next level to achieve a goal of developing creative chefs that are adaptable to consumer health concerns. It will offer opportunities to understand the basic differences in dietary topics versus popular notions of nutrition, as well as consumer preferences in regard to personal, medical, or religious purposes. Students will examine ingredients and their functions with suggested ingredient replacements in recipes. Labs will offer hands-on exploration in modifying classical and modern dining food items. PREREQUISITE: CA A120, CA A124, CA A149 and FN A140 or FN A170. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Identify trigger ingredients for medically identified, and personally preferred diets, while creating work solutions to satisfy consumers' needs.

Course Objectives

- 1. Identify hidden gluten sources and proper substitution options in recipes.
- 2. Identify vegan guidelines and how each food item's properties affect the end food product.
- 3. Understand basic diabetic principles of carbohydrate counting and sugar substitutes.
- 4. Explore and define religious caveats that affect food preparation and consumption.
- 5. Describe the difference in medically sound diets vs. diets of choice or principle vs. fad diets.
- 6. Determine and execute food preparation that adheres to medically sound diets, while establishing plant based alternatives
- 7. Successfully prepare recipes providing alternatives for gluten-free, vegan, diabetic, and religious principles

Lecture Content

Identify Current Health Problem Diabetes, Hypertension, Celiac Disease, Cardiovascular Disease Consumer Trends for Diets of Choice Why Gluten

Free? Perception vs. Reality Celiac vs. Intolerance and Perceived Health Benefits Profit making and public demand Hidden Gluten Ingredients in Cooking Identify ingredients Identify substitutions Introduction of class project Vegan, Non-Dairy Vegan, Vegetarian, Pescatarian Baking Identify subcategories as it pertains to baking recipes Vegan, Non-Dairy Vegan, Vegetarian, Pescatarian Cooking Identify subcategories as it pertains to cooking recipes Ingredients common to cooking that are known allergens crustaceans, fish, eggs, soy Class Project Defined Creating classification and identification book Midterm Written Allergens/Religious Baking Allergic vs. Food Sensitivity Dairy-free, Nut-free baking Identify other allergens common to baking Identify religious caveats alcohol, meat/dairy in Kosher applications alcohol, Halal, Mormon, 7th Day Adventists Identify ingredient substitutions for baking Kosher, Halal, Mormon, 7th Day Adventists Allergens/Religious Cooking Dairy free, Nut-free cooking Ingredients to be aware of crustaceans, fish, eggs, soy, alcohol Diabetic Baking Sugar reduction and carbohydrate counting Sugar substitutes Adverse reactions to substitutes Fad versus Legitimate Medical Cooking Baking Keto, Paleo, or other lose weight quick diet Benefits and cautions Mediterranean, DASH, MIND Diets Benefits and cautions Nutritious Baking/Whole Food Plant Based Unprocessed ingredients Plant-based Sugar reduction Nutritious Cooking/Whole Food Plant Based Reducing and eliminating fats Fat replacements Differences to vegan diets Written Final Course Wrap-up

Lab Content

Introduction of Nutritious Cooking Baking Learning to produce food in lab environment Practice sanitation and safety procedures for food production and clean up. Produce salads Traditional salads Vegan/Plant based substitutes for traditional salads Sample and evaluate products Gluten-Free Baking 1 Breads Cookies/Bars Muffins Gluten-Free Baking 2 Pies Tarts Cakes Cupcakes Gluten-Free Cooking Sandwiches Soup Fried Items Pizza Vegan Baking Cheesecake Cakes Muffins Cupcakes Quick Breads Custards Vegan Cooking "Meat" Substitutes Burger Substitutes Protein Enhanced Recipes Tofu/Tempeh Solutions Allergen/Religious Baking Dairy and Nut Free Recipes Cheesecake Buns Fruit Tarts Custards Religious Concerns Gelatin Substitutes Alcohol Substitutes Coffee Restrictions Midterm Practical Allergen/Religious Cooking Dairy, Nut, Crustacean, Fish, Egg Free Substitutions Cream Soups Pasta Entrees Religious Concerns Kosher Wine/Alcohol Made Without Grain Alcohol Substitutes For Sauteeing Entrees Without Pork Split-hooved meat Diabetic Baking/Reduced Sugar Baking No Sugar Added Dessert Recipes Cakes Custards Quick Breads Bars Sugar Substitute Analysis Reduced Sugar Recipes Cakes Custards Cookies/Bars Fad Or Loose Weight Cooking Keto Recipes Paleo Recipes Nutritious Baking/Mediterranean/DASH/MIND Fruit Desserts Aguafaba Meringue Flaxseed/Chia Seed/Applesauce/Banana Substitutes Nutritious Cooking/Mediterranean/DASH/MIND Increased Vegetable Based Recipes Increased Fruit Based Recipes Whole Food Plant Based Cooking/Desserts Strict Plant Based Unprocessed Ingredient Recipes Final Practical Preparation Final Practical

Method(s) of Instruction

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

Instructional Techniques

Lecture - Video enhanced lectures covering weekly core subjects and terminology will be followed by small study group discussion Lab

- Recipes that provide students with hands on applications of core subjects each week will then be evaluated at the end of each lab session.

Powers, C. Abbot Hess, M.. Essentials of Nutrition for Chefs, ed. Culinary Nutrition Publishing, 2020

Reading Assignments

NIH Review - Dietary Factors Influence and Disease Risk CDC - Food Allergy verses Intolerance: What is the Difference Preventing Food Allergies In Restaurants Restaurants Can Reduce the Risk of Food Allergy Reactions Mayo Clinic - Don't Fall For Fad Diets Walnuts.org - 8 Easy Ways to Replace Saturated Fats with Unsaturated Fats Textbook Readings Chapter 1 - Current Health Problems and Dietary Needs Chapter 2 - What is Nutritional Baking? Chapter 3 - Ingredients for Nutritious Baking Chapter 4 - Reduced- and Low-Fat Baking Chapter 5 - Baking with Less Sugar Chapter 6 Gluten-Free Baking Chapter 7 Nondairy and Vegan Products Appendix/Conversion Tables/Sweeteners Nutrition Textbook - Essentials of Nutrition for Chefs Reading Assignments 1 hour a week

Writing Assignments

Week 1: Written Report - A specific health problem will be given; students will detail disease and an example of a snack for the disease (2 pages)
Week 4: Discussion - Students to provide summary answering questions about gluten, its effect on taste and texture of foods, and examples of hidden gluten ingredients in foods. Week 7: Research: Positive health aspects of vegetarian diet. 2 page report. Week 10: Food Allergy vs. Food Intolerance Worksheet - Short answer, fill in the blank, true/false
Week 11: Using ESHA (FoodProcessor Nutrition Analysis) software, compare the nutritional analysis of a dessert (original) vs. the diabetic friendly version. Week 12: Discussion: Reviewing the pitfalls of "fad diets" Written Assignments 8 hours

Out-of-class Assignments

Class Project - Creating a reference guidebook identifying targeted health concerns, plus trigger ingredients for each medical and personal preference diets. This will include definitions of major medical conditions and ingredients and class notes of recipe results. Project Time 30 minutes a week

Demonstration of Critical Thinking

Students will be required to make adjustments to recipes to suit a weekly medical or personal preference diets. This will require them to be able to find the appropriate solution for any given dietary need.

Required Writing, Problem Solving, Skills Demonstration

MidTerm and Final Written Exams will cover ingredient and disease terminology, as well as medical culinary needs based on weekly subject matter. Midterm and Final Practical exams will demonstrate baking and cooking skill in adjusting a recipe for a given condition.

Eligible Disciplines

Culinary arts/food technology (food service, meat cutting, baking, waiter/w...: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience. Culinary arts/food technology (food service, meat cutting, baking, waiter/w...: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Richard J. Coppedge. Baking For Special Diets, ed. Wiley and Associates, 2016 Rationale: Special ingredients descriptions and recipes are provided that will be used in the lectures and labs. 2. Required