



Family and Consumer Sciences Education 2009-2010 Standards



Industry Sector: Hospitality, Human Services and Education

Cluster: Hospitality and Tourism

Pathway: Restaurants and Food/Beverage Services

The Hospitality and Tourism Cluster prepares learners for careers in the management, marketing and operations of restaurants and other food services, lodging, attractions, recreational events and travel-related services. Hospitality operations are located in communities throughout the world.

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Culinary Arts

- I. Work Place Skills (*CT)**
 - A. Identify Career Paths in Food Service (*CT)
 - 1. Service
 - 2. Production
 - 3. Management
 - 4. Related
 - B. Employment Opportunities
 - 1. Restaurants
 - 2. Hotels
 - 3. Banquet
 - C. Education and Training (*CT)
 - 1. Preparing for a Career
 - a. Certificate Programs
 - b. Apprenticeships
 - c. Associated Degrees
 - d. Bachelor Degrees
 - e. Corporate Training
 - f. On the Job Training
 - D. Employability Skills (*CT)
 - 1. Basic Skills
 - 2. Work Ethic
 - 3. Leadership
 - E. Customer Service (*CT)
 - 1. Service Basics
 - 2. Service Skills
 - 3. Communication
 - a. Resolving Complaints
 - b. Customer Sensitivity
- II. Sanitation (*CT, FSN)**
 - A. Understanding Food borne Illnesses
 - 1. Outbreaks

As of May 1, 2010

- 2. Contamination
- 3. Potentially Hazardous Foods
- 4. Ensuring Food Safety
- B. Understanding Microorganisms
 - 1. Pathogens
 - 2. Viruses
 - 3. Parasites
 - 4. Fungi
 - 5. Molds
 - 6. Yeasts
- C. Safe Food Handling
 - 1. Gastrointestinal Illness
 - 2. Infections
 - 3. Personal Hygiene
 - a. Hair Restraints
 - b. Use of Gloves

III. Flow of Food in a Professional Kitchen (*CT)

- A. Purchasing and Receiving Food
 - 1. Inspection of Deliveries
 - 2. Thermometers
 - a. Reading
 - b. Calibration
 - 3. Packaging Processes
- B. Storage
 - 1. Refrigeration
 - 2. Dry Storage
 - 3. Shelf Life
- C. Protection During Preparation
 - 1. Internal Cooking Temperatures
 - 2. Cooling
 - 3. Thawing
- D. Protection During Food Service
 - 1. Hot Holding Equipment



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2. Cold Holding Equipment
3. Reserving
- E. HACCP System
 1. Critical Limits
 2. Monitoring
 3. Corrective Action
 4. Verification

IV. Professional Equipment

- A. Equipment Selection (*CT)
 1. Small Equipment
 - a. Knives
 - b. Hand Tools
 - c. Cookware
 2. Large Equipment
 - a. Receiving Area
 - b. Storing Food
 - c. Preparation Equipment
 - d. Cooking Equipment
 - e. Holding Equipment
 - f. Service Equipment
 3. Equipment Use
 4. Equipment Sanitation and Maintenance

V. Commercial Preparation of Food Products

- A. Cooking Principles and Methods
 1. Dry Heat Cooking
 2. Moist Heat Cooking
 3. Combination Cooking
- B. Stocks and Sauces
 1. Types of Stocks and Sauces
 2. Preparing Stocks and Sauces
- C. Seasoning and Flavoring
 1. Herbs
 2. Spices



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- 3. Uses of Herbs and Spices
- D. Line Cookery
 - 1. Grill
 - 2. Deep Fry
 - 3. Broil
 - 4. Sauté
 - 5. Pantry
- E. Soups
 - 1. Types of Soups
 - 2. Preparing Soups
- F. Meats, Poultry, and Seafood
 - 1. Types of Poultry
 - a. Handling Poultry
 - b. Preparing Poultry
 - 2. Types of Meat
 - a. Handling Meat
 - b. Preparing Meat
 - 3. Types of Seafood
 - a. Handling Seafood
 - b. Preparing Seafood
- G. Pantry
 - 1. Types of Sandwiches
 - 2. Types of Fruits and Vegetables
 - 3. Garnishing
 - 4. Plate Presentation
 - 5. Hors Devours and Appetizers
 - 6. Dairy and Breakfast Foods
- H. Presentation
- VI. Commercial Preparation of Baked Goods**
 - A. Baking Principles
 - 1. Ingredients in Baking
 - 2. Bakers Math
 - a. Formulas

- b. Measurements
 - i. Weight
 - ii. Volume
- 3. Types of Baked Products
- B. Preparing Baked Goods
 - 1. Quick Breads
 - 2. Yeast Breads
 - 3. Custard Products
 - 4. Dessert Sauces
- C. Presentation
- VII. Food Service Roles and Industry**
 - A. Hospitality
 - 1. Individual Communication
 - 2. Group Communication
 - 3. Customer Satisfaction
 - 4. Diverse and Individuals with Special Needs
 - B. Roles in the Restaurant
 - 1. Cashier
 - 2. Host/Hostess
 - 3. Dining Room Attendant
 - 4. Server
 - 5. Beverage Service
 - 6. Manager
 - 7. Kitchen Brigade System
 - C. Food Costs (*CT)
 - 1. Portion Control
 - 2. Calculating Costs
 - 3. Costing Recipes
 - 4. Purchasing Food
 - 5. Receiving Goods
 - 6. Inventory Control
 - 7. Storing Goods
 - 8. Minimizing Waste

- D. Principles of Menu Planning
 - 1. Variety
 - 2. Nutrition
 - 3. Flexibility
 - 4. Necessary Equipment
 - E. Marketing Decisions
 - 1. Marketing Plans
 - 2. Competition Assessment
 - 3. Setting Prices
 - 4. Advertising
 - F. Restaurant Sustainability/ Going Green
- VIII. Nutrition in Food Service**
- A. Food Guide Pyramid (*FSN, NW)
 - 1. Food Groups
 - 2. Use of Pyramid
 - 3. Physical Activity
 - B. Nutrition Basics
 - 1. Types of Nutrients
 - 2. Functions of Nutrients
 - 3. Food Labels (*FSN, NW)
 - 4. Recommended Daily Allowances
- IX. Commercial Food Service Stations**
- A. Fry Station
 - B. Grill Station
 - C. Breakfast Station
 - D. Counter Service
 - E. Drive-Thru Station

****Information may also be taught in:***

CT- Catering

FSN- Food Science, Nutrition and Dietetics

NW- Nutrition and Wellness

Culinary Arts

Career Cluster/Cluster Grouping:	Hospitality, Human Services & Education	
Pathway(s):	Restaurants & Food & Beverage Services	
Prepared Completer Competencies:		
<ul style="list-style-type: none"> N8.0 Integrate knowledge, skills, and practices required for careers in food production and services. 		
High School Expectations		
Concepts and skills students know include:		
<ul style="list-style-type: none"> N8.1 Analyze career paths within the food production and food services industries. 		
Evidence Outcomes - Students can:	21st Century Skills and Readiness Competencies	
<p>N8.1.1 Explain the roles, duties, and functions of individuals engaged in food production and services careers. (PWR2.7.e) (RWC02.02.a, RWC04.10.c)</p> <p>N8.1.2 Analyze opportunities for employment and entrepreneurial endeavors. (PWR2.7.f) (RWC04,06.c, RWC04.10.c)</p> <p>N8.1.3 Summarize education and training requirements and opportunities for career paths in food production and services. (PWR2.7.e) (RWC03.05.b, RWC04.10.cj)</p> <p>N8.1.6 Analyze the role of professional organizations in food production and services. (PWR2.9.a, PWR2.9.c) (RWC02.02.a, RWC02.02.c)</p>	<p>Academic Content Knowledge Alignment:</p> <p>RWC02.02.a - Reading for All Purposes - Interpreting and evaluating complex informational texts require the understanding of rhetoric, critical reading, and analysis skills - Use reading and note-taking strategies (outlining, mapping systems, skimming, scanning, key word search) to organize information and make connections within and across informational texts</p> <p>RWC02.02.c - Reading for All Purposes - Interpreting and evaluating complex informational texts require the understanding of rhetoric, critical reading, and analysis skills - Obtain and use information from text and text features (index, bold or italicized text, subheadings, graphics) to answer questions, perform specific tasks, or identify and solve problems</p>	

	<p>RWC03.05.b - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - Locate and select appropriate information that clearly supports a definite purpose, topic, or position</p> <p>RWC04.06.c - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - Identify and evaluate potential sources of information for accuracy, reliability, validity, and timeliness</p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p>
	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):</p> <p>PWR2.7.e Understand the relevance of learning to postsecondary and workforce readiness</p> <p>PWR2.7.f Demonstrate awareness of and evaluate career options</p> <p>PWR2.9.a Work effectively with others</p> <p>PWR2.9.c Cooperate for a common purpose</p>
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> N8.2 Demonstrate food safety and sanitation procedures. 	
<p>Evidence Outcomes - Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>

N 8.2.1 Identify characteristics of major food borne pathogens, their role in causing illness, foods involved in outbreaks, and methods of prevention. (HPE04.12.d) (PWR2.2.a) (RWC04.10.c)

N8.2.4 Use the Hazard Analysis Critical Control Point (HACCP) and crisis management principles and procedures during food handling processes to minimize the risks of food borne illness. (MAT01.02.a) (PWR2.1.a) (RWC01.02.d, RWC04.10.c)

N8.2.5 Practice good personal hygiene/health procedures, including dental health and weight management, and report symptoms of illness. (HPE04.12.d) (PWR2.7.d) (RWC04.10.c)

N8.2.6 Demonstrate proper purchasing, receiving, storage, and handling of both raw and prepared foods. (HPE04.12.d) (MAT01.02.a) (RWC04.10.c)

N8.2.7 Demonstrate safe food handling and preparation techniques that prevent cross contamination from potentially hazardous foods, between raw and ready-to-eat foods, and between animal and fish sources and other food products. (MAT01.02.a) (PWR2.7.d) (RWC01.02.d, RWC04.10.c)

N8.2.10 Demonstrate safe and environmentally responsible waste disposal and recycling methods. (HPE04.12.d) (PWR2.4.c) (RWC04.10.c) (SCI03.07.c)

N8.2.11 Demonstrate ability to maintain necessary records to document time and temperature control, HACCP, employee health, maintenance of equipment, and other elements of food preparation, storage, and presentation. (HPE04.12.d) (PWR2.7.d) (RWC03.05.b, RWC01.02.d, RWC04.06.d)

Academic Content Knowledge Alignment:
HPE04.12.d-Comprehensive Health and Physical Education, Prevention and Risk Management(Health), Advocate for changes in the home, school, or community that would increase safety - Advocate for changes at home, in school, or in the community that would increase safety – such as testing smoke detectors, implementing a fire escape plan, and erecting fencing around swimming pools

MAT01.02.a - Number Sense, Properties, and Operations - Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. - Use appropriate computation methods that encompass estimation and calculation.

RWC01.02.d - Oral Expression and Listening - Effective collaborative groups accomplish goals - Participate in the preparations of the group activity or product, defining and assuming individual roles and responsibilities

RWC03.05.b - Writing and Composition - Elements of informational and persuasive texts can be refined to inform or influence an audience - Locate and select appropriate information that clearly supports a definite purpose, topic, or position

RWC04.06.d - Research and Reasoning - Collect, analyze, and evaluate information obtained from multiple sources to answer a question, propose solutions, or share findings and conclusions - Use a variety of strategies (such as search engines, online databases, interview) to collect and organize relevant and significant information

	<p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p> <p>SCI03.07.c - Earth Science - Natural hazards have local, national and global impacts such as volcanoes, earthquakes, tsunamis, hurricanes, and thunderstorms - Make predictions and draw conclusions about the impact of natural hazards on human activity – locally and global</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a Apply logical reasoning and analytical skills</p> <p>PWR2.7.c Behave honestly and ethically</p> <p>PWR2.7.d Take responsibility for actions</p>
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> N8.3 Demonstrate industry standards in selecting, using, and maintaining food production and food service equipment. 	
<p>Evidence Outcomes - Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<p>N8.3.1 Operate tools and equipment following safety procedures and OSHA requirements. (PWR2.2.a) (RWC04.10.c)</p> <p>N8.3.2 Maintain tools and equipment following safety procedures and OSHA requirements. (PWR2.2.a) (RWC04.10.c)</p>	<p>Academic Content Knowledge Alignment: RWC01.02.d - Oral Expression and Listening - Effective collaborative groups accomplish goals - Participate in the preparations of the group activity or product, defining and assuming individual roles and responsibilities</p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning</p>

<p>N8.3.3 Demonstrate procedures for cleaning and sanitizing equipment, serving dishes, glassware, and utensils to meet industry standards and OSHA requirements. (PWR2.2.a) (RWC01.02.d, RWC04.10.c)</p> <p>N8.3.5 Demonstrate procedures for safe and secure storage of equipment and tools. (PWR2.1.a) (RWC04.10.c)</p> <p>N8.3.6 Identify a variety of types of equipment for food processing, cooking, holding, storing, and serving, including hand tools and small ware. (PWR2.3.c)</p>	<p>- Implement a purposeful and articulated process to solve a problem</p> <hr/> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a Apply logical reasoning and analytical skills</p> <p>PWR2.2.a Select, integrate, and apply appropriate technology to access and evaluate new information</p> <p>PWR2.3.c Develop new connections where none previously existed</p>
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> N8.4 Demonstrate menu planning principles and techniques based on standardized recipes to meet customer needs. 	
<p>Evidence Outcomes - Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<p>N8.4.2 Apply menu-planning principles to develop and modify menus. (MAT01.02.a) (PWR2.1.a, PWR2.1.b, PWR2.3.b)</p> <p>N8.4.3 Analyze food, equipment, and supplies needed for menus. (MAT04.01.c) (PWR2.1.a) (RWC04.10.c)</p> <p>N8.4.7 Apply principles of Measurement, Portion Control, Conversions, Food Cost Analysis and Control, Menu Terminology, and Menu Pricing to menu planning. (PWR2.1.b, PWR2.1.b, PWR2.2.a) (RWC03.03.a)</p>	<p>Academic Content Knowledge Alignment: MAT02.01.a - Patterns, Functions, and Algebraic Structures - Functions model situations where one quantity determines another and can be represented algebraically, graphically, and using tables - Determine, using all tools including graphing technology, when a relation is a function using a table, a graph, or an equation</p> <p>RWC03.03.a - Writing and Composition - Standard English conventions effectively communicate to targeted audiences and purposes - Follow the conventions of Standard English to write varied, strong, correct, complete sentences</p>

	<p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p>
	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a Apply logical reasoning and analytical skills</p> <p>PWR2.1.b Conduct research using acceptable research methods</p> <p>PWR2.2.b Understand the ethical uses of information</p> <p>PWR2.3.b Generate, evaluate, and implement new ideas and novel approaches</p>
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> N8.5 Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs. 	
<p>Evidence Outcomes - Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<p>N8.5.1 Demonstrate professional skills in safe handling of knives, tools, and equipment. (RWC04.10.c)</p> <p>N8.5.2 Demonstrate professional skill for a variety of cooking methods including roasting, broiling, smoking, grilling, sautéing, pan frying, deep frying, braising, stewing, poaching, steaming, and baking using professional equipment and current technologies. (HPE01.03.a) (MAT01.02.a) (PWR2.1.a) (RWC01.06.d, RWC01.06.e, RWC01.02.d) (SCI01.02.b, SCI01.05.b, SCI01.05.c)</p>	<p>Academic Content Knowledge Alignment HPE01.03.a-Comprehensive Health and Physical Education, Movement Competence and Understanding, Apply rules, principles, problem-solving skills, and concepts to traditional and nontraditional movement settings - Analyze and explain training and conditioning practices that have the greatest impact on skill acquisition and successful performance in a variety of lifelong activities</p>

N8.5.3 Utilize weights and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques. (MAT01.02.a) (PWR2.1.d, RWC01.06.d, RWC01.02.d, RWC01.06.e)

N8.5.4 Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding of variety of foods. (MAT01.02.a) (PWR2.1.a) (RWC01.06.d, RWC01.06.e, RWC01.02.d, , RWC04.10.c) (SCI01.02.b, SCI01.05.c)

N8.5.5 Prepare various meats, seafood, and poultry using safe handling and professional preparation techniques. (MAT01.02.a) (PWR2.1.a) (RWC01.06.d, RWC01.02.d, RWC04.10.c) (SCI01.02.b)

N8.5.6 Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques. (MAT01.02.a) (PWR2.1.a) (RWC01.06.d, RWC01.06.e, RWC01.02.d, RWC04.10.c) (SCI01.02.b)

N8.5.7 Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques. (MAT01.02.a) (PWR2.1.a) (RWC01.06.d, RWC01.06.e, RWC01.02.d, RWC04.10.c) (SCI01.02.b)

N8.5.9 Prepare sandwiches, canapés and appetizers using safe handling and professional preparation techniques. (MAT01.02.a) (PWR2.1.a) (RWC01.06.d, RWC01.06.e, RWC01.02.d, , RWC04.10.c) (SCI01.02.b, 4 Life Science for Applying Science)

HPE02.04.a-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Analyze the benefits of a healthy diet and the consequences of an unhealthy diet - Use nutritional evidence to describe a healthy diet and an unhealthy diet

HPE02.04.b-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Analyze the benefits of a healthy diet and the consequences of an unhealthy diet - Analyze and describe the relationship among healthy eating, physical activity, and chronic diseases such as heart disease, cancer, type-2 diabetes, hypertension, and osteoporosis

HPE02.04.c-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Analyze the benefits of a healthy diet and the consequences of an unhealthy diet - Describe the importance of eating a variety of foods to balance nutrient and caloric needs

MAT01.02.a - Number Sense, Properties, and Operations - Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. - Use appropriate computation methods that encompass estimation and calculation.

RWC01.01.e - Oral Expression and Listening - Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness - Choose specific words and word order for intended effect and meaning

N8.5.10 Prepare breads, baked goods and desserts using safe handling and professional preparation techniques. (MAT01.02.a) (PWR2.1.a) (RWCo1.06.d, RWC01.06.e, RWC01.02.d, , RWC04.10.c) (SCI01.02.b, 4 Life Science for Applying Science)

N8.5.12 Demonstrate professional plating, garnishing, and food presentation techniques. (PWR2.3.b) (RWC01.01.e, RWC01.06.e, RWC01.02.d, RWC04.10.c) (VIA01.01.a, VIA02.03.b, VIA03.02.a, VIA03.02.c)

N8.5.13 Examine the applicability of convenience food items. (PWR2.1.a)

N8.5.14 Demonstrate cooking methods that increase nutritional value, lower calorie and fat content, and utilize herbs and spices to enhance flavor. (HPE02.04.a, HPE02.04.b) (MAT01.02.a) (PWR2.3.b) (SCIo2.03.e)

RWC01.02.d - Oral Expression and Listening - Effective collaborative groups accomplish goals - Participate in the preparations of the group activity or product, defining and assuming individual roles and responsibilities

RWC01.06.d - Oral Expression and Listening - Effectively operating in small and large groups to accomplish a goal requires active listening - Facilitate (or lead) a group by developing an agenda designed to accomplish a specified goal

RWC01.06.e - Oral Expression and Listening - Effectively operating in small and large groups to accomplish a goal requires active listening - Support others in discussions, activities, and presentations through active listening

RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem

SCI01.02.b - Physical Science - Matter has definite structure that determines characteristic physical and chemical properties - Gather, analyze and interpret data on chemical and physical properties of elements such as density, melting point, boiling point, and conductivity

SCI01.05.b - Physical Science - Energy exists in many forms such as mechanical, chemical, electrical, radiant, thermal, and nuclear, that can be quantified and experimentally determined - Use appropriate measurements, equations and graphs to gather, analyze, and interpret data on the quantity of energy in a system or an object

SCI01.05.c - Physical Science - Energy exists in many forms such as mechanical, chemical, electrical, radiant, thermal, and nuclear, that can be quantified and experimentally determined - Use direct and indirect evidence to develop predictions of the types of energy associated with objects

SCI02.03.e - Life Science - Cellular metabolic activities are carried out by biomolecules produced by organisms - Analyze and interpret data on the body's utilization of carbohydrates, lipids, and proteins

VIA01.01.a-Visual Arts, Observe and Learn to Comprehend, Visual art has inherent characteristics and expressive features - Demonstrate skills that utilize the characteristics and expressive features of art and design to communicate meaning

VIA02.03.b-Visual Arts, Envision and Critique to Reflect, Interpretation is a means for understanding and evaluating works of art - Demonstrate fluency in using critique vocabulary to assess personal works of art and the others' works of art

VIA03.02.a-Visual Arts, Invent and Discover to Create, Assess and produce art with various materials and methods - Skillfully use a variety of techniques and media to create works of art

VIA03.02.c-Visual Arts, Invent and Discover to Create, Assess and produce art with various materials and methods - Demonstrate collaboration to create works

	of art
	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a Apply logical reasoning and analytical skills</p> <p>PWR2.1.d Collect and analyze quantitative and qualitative data and research</p> <p>PWR2.3.b Generate, evaluate, and implement new ideas and novel approaches</p> <p>PWR2.7.d Take responsibility for actions</p>
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> N8.6 Demonstrate implementation of food service management and leadership functions. 	
<p>Evidence Outcomes - Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<p>N8.6.1 Apply principles of purchasing, receiving, issuing, and storing in food service operations. (MAT01.02.a) (PWR2.1.a) (RWC04.10.c)</p> <p>N8.6.2 Practice inventory procedures including first in/first out concept, date marking, and specific record keeping. (MAT01.02.a) (PWR2.1.a) (RWC04.10.c)</p> <p>N8.6.8 Implement marketing plan for food service operations (MAT03.03.a) (PWR2.1.a, PWR2.6.a)</p> <p>N8.6.10 Apply principles of inventory management, labor cost and control techniques, production planning and control, and facilities management to front and back of the house operations. (PWR2.6.b, PWR2.9.a) (RWC04.10.c)</p>	<p>Academic Content Knowledge Alignment: MAT01.02.a - Number Sense, Properties, and Operations - Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. - Use appropriate computation methods that encompass estimation and calculation.</p> <p>MAT03.03.a - Data Analysis, Statistics, and Probability - Visual displays and summary statistics condense the information in data sets into usable knowledge - Identify and choose appropriate ways to summarize numerical or categorical data using tables, graphical displays, and numerical summary statistics (describing shape, center and spread) and accounting for outliers when appropriate</p>

	<p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p>
	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a Apply logical reasoning and analytical skills PWR2.1.b Conduct research using acceptable research methods PWR2.6.a Plan and prioritize goals PWR2.6.b Manage time effectively PWR2.9.a Work effectively with others</p>
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> N8.7 Demonstrate the concept of internal and external customer service. 	
<p>Evidence Outcomes - Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<p>N8.7.1 Analyze the role of quality service as a strategic component of exceptional performance. (PWR2.6.c) (RWC04.10.c)</p> <p>N8.7.2 Demonstrate quality services that meet industry standards in the food service industry. (PWR2.6.f) (RWC01.01.d, RWC01.03.a, RWC01.01.e, RWC04.10.c)</p> <p>N8.7.3 Analyze the relationship between employees and customer satisfaction. (PWR2.9.c, PWR2.9.d)</p>	<p>Academic Content Knowledge Alignment: HPE03.06.a-Comprehensive Health and Physical Education, Emotional and Social Wellness (Health), Advocate to improve or maintain positive mental and emotional health for self and others - Demonstrate effective and respectful advocacy strategies in support of the needs and rights of others</p> <p>HPE03.06.b-Comprehensive Health and Physical Education, Emotional and Social Wellness (Health),</p>

N8.7.4 Apply strategies for addressing and resolving complaints. (PWR2.8.a) (RWC01.03.a, RWC01.01.e, RWC04.10.c)

N8.7.5 Demonstrate sensitivity to diversity and individuals with special needs. (HPE03.06.a, HPE03.06.b) (PWR2.4.b) (RWC01.01.f, RWC04.10.c)

Advocate to improve or maintain positive mental and emotional health for self and others -
Demonstrate support and respect for diversity

RWC01.01.d - Oral Expression and Listening - Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness -
Use grammar and vocabulary appropriate for the situation, audience, topic, and purpose

RWC01.01.e - Oral Expression and Listening - Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness -
Choose specific words and word order for intended effect and meaning

RWC01.01.f - Oral Expression and Listening - Effective speaking in formal and informal settings requires appropriate use of methods and audience awareness -
Select appropriate technical or specialized language

RWC01.03.a - Oral Expression and Listening - Verbal and nonverbal cues impact the intent of communication -
Give informal talks using an appropriate level of formality of verbal

RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning -
Implement a purposeful and articulated process to solve a problem language and nonverbal interaction with audience

	<p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):</p> <p>PWR2.6.c Take initiative, and follow through</p> <p>PWR2.6.f Act with maturity, civility, and politeness</p> <p>PWR2.8.a Read, write, listen and speak effectively</p> <p>PWR2.9.c Cooperate for a common purpose</p> <p>PWR2.9.d Use teamwork and leadership skills effectively</p>
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Career Cluster/Cluster Grouping:	Hospitality, Human Services & Education
Pathway(s):	Restaurant & Food & Beverage Services
Prepared Completer Competencies:	
<ul style="list-style-type: none"> N9.0 Integrate knowledge, skills, practices required for careers in food science, food technology, dietetics, and nutrition. 	
High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> N9.3 Evaluate nutrition principles, food plans, preparation techniques and specialized dietary plans. 	
Evidence Outcomes - Students can:	21st Century Skills and Readiness Competencies
N9.3.1 Analyze nutrient requirements across the life span addressing the diversity of people, culture, and religions. (HPE02.04.a, HPE02.04.b, HPE02.04.e, HPE02.06.a, HPE02.06.b, HPE02.06.c, HPE02.09.a) (PWR2.1.a) (RWC04.08.b) (SCI01.02.d)	Academic Content Knowledge Alignment: HPE02.04.a-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Analyze the benefits of a healthy diet and the consequences of an unhealthy diet - Use nutritional

N9.3.2 Analyze nutritional data. (HPE02.04.a, HPE02.04.b, HPE02.06.a, HPE02.06.b) (MAT03.04.a) (PWR2.1.a) (RWC04.10.c) (SCI02.03.e, SCI02.04.c)

evidence to describe a healthy diet and an unhealthy diet

HPE02.04.b-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Analyze the benefits of a healthy diet and the consequences of an unhealthy diet - Analyze and describe the relationship among healthy eating, physical activity, and chronic diseases such as heart disease, cancer, type-2 diabetes, hypertension, and osteoporosis

HPE02.04.e-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Analyze the benefits of a healthy diet and the consequences of an unhealthy diet - Analyze the relationship between eating behavior and metabolism

HPE02.06.a-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Demonstrate ways to take responsibility for healthy eating - Describe and explain how current federal nutrition standards and guidelines are useful in planning a healthy diet

HPE02.06.b-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Demonstrate ways to take responsibility for healthy eating - Use information on food labels to make healthy eating choices

HPE02.06.c-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health),

	<p>Demonstrate ways to take responsibility for healthy eating - Demonstrate how to balance caloric intake with caloric expenditure to maintain, gain, or reduce weight in a healthy manner</p> <p>HPE02.09.a-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Develop and maintain the ongoing evaluation of factors that impact health, and modify lifestyle accordingly - Analyze the role of personal responsibility in maintaining and enhancing personal, family, and community wellness</p> <p>MAT03.04.a - Data Analysis, Statistics, and Probability - Randomness is the foundation for using statistics to draw conclusions when testing a claim or estimating plausible values for a population characteristic - Define and explain the meaning of significance (both practical and statistical)</p> <p>RWC04.08.b - Research and Reasoning - Informational materials, including electronic sources, need to be collected, evaluated, and analyzed for accuracy, relevance, and effectiveness for answering research questions - Integrate information from different sources to form conclusions about an author's assumptions, biases, credibility, cultural and social perspectives, or world views</p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p> <p>SCI01.02.d - Physical Science - Matter has definite</p>
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	<p>structure that determines characteristic physical and chemical properties - Develop a model that differentiates atoms and molecules, elements and compounds, and pure substances and mixtures</p> <p>SCI02.03.e - Life Science - Cellular metabolic activities are carried out by biomolecules produced by organisms - Analyze and interpret data on the body's utilization of carbohydrates, lipids, and proteins</p> <p>SCI02.04.c - Life Science - The energy for life primarily derives from the interrelated processes of photosynthesis and cellular respiration. Photosynthesis transforms the sun's light energy into the chemical energy of molecular bonds. Cellular respiration allows cells to utilize ch - Explain how carbon compounds are gradually oxidized to provide energy in the form of adenosine triphosphate (ATP), which drives many chemical reactions in the cell</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a Apply logical reasoning and analytical skills</p>
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> N9.4 Apply basic concepts of nutrition and nutritional therapy in a variety of settings. 	
<p>Evidence Outcomes - Students can:</p>	<p>21st Century Skills and Readiness Competencies</p>
<p>N9.4.2 Use nutritional information to support care planning. (HPE02.06.a, HPE02.06.b, HPE02.06.c) (MAT01.02.a) (PWR2.1.a) (RWC04.10.c)</p> <p>N9.4.3 Utilize a selective menu. (PWR2.1.a) (RWC04.10.c)</p>	<p>Academic Content Knowledge Alignment: HPE02.06.a-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Demonstrate ways to take responsibility for healthy eating - Describe and explain how current federal</p>

	<p>nutrition standards and guidelines are useful in planning a healthy diet</p> <p>HPE02.06.b-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Demonstrate ways to take responsibility for healthy eating - Use information on food labels to make healthy eating choices</p> <p>HPE02.06.c-Comprehensive Health and Physical Education, Physical and Personal Wellness(Health), Demonstrate ways to take responsibility for healthy eating - Demonstrate how to balance caloric intake with caloric expenditure to maintain, gain, or reduce weight in a healthy manner</p> <p>MAT01.02.a - Number Sense, Properties, and Operations - Formulate, represent, and use algorithms with real numbers flexibly, accurately, and efficiently. - Use appropriate computation methods that encompass estimation and calculation.</p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...): PWR2.1.a Apply logical reasoning and analytical skills</p>
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Career Cluster/Cluster Grouping:	Hospitality, Human Services & Education	
Pathway(s):	Restaurants & Food & Beverage Services	
Prepared Completer Competencies:		
<ul style="list-style-type: none"> Family & Consumer Sciences National Reasoning for Action Standards 		
High School Expectations		
Concepts and skills students know include:		
<ul style="list-style-type: none"> NRFA 1.0 Evaluate reasoning for self and others. 		
Evidence Outcomes - Students can:	21st Century Skills and Readiness Competencies	
NRFA 1.1 Analyze different types of reasoning (e.g., scientific, practical, interpersonal). (RWC04.04.a, RWC04.04.b)	Academic Content Knowledge Alignment: RWC04.04.a - Research and Reasoning - Complex situations require critical thinking across multiple disciplines - Analyze the logic of complex situations by questioning the purpose, question at issue, information, points of view, implications and consequences inferences, assumptions and concepts RWC04.04.b - Research and Reasoning - Complex situations require critical thinking across multiple disciplines - Evaluate strengths and weaknesses of their logic and logic of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision	
NRFA 1.3 Establish criteria for adequate reasoning		
	Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):	

High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> NRFA 2.0 Analyze recurring and evolving family, workplace, and community standards. 	
Evidence Outcomes - Students can:	21st Century Skills and Readiness Competencies
NRFA 2.1 Classify different types of concerns (e.g., theoretic, technical, practical) and possible methods for addressing them. (RWC04.10.c)	Academic Content Knowledge Alignment: RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem
	Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):

High School Expectations	
Concepts and skills students know include:	
<ul style="list-style-type: none"> NRFA 3.0 Analyze practical reasoning components. 	
Evidence Outcomes - Students can:	21st Century Skills and Readiness Competencies
NRFA 3.5 Analyze role exchange, universal consequences, the role of ethics, and other tests for making responsible judgments (HPE03.06.a, HPE03.06.b) (RWC04.10.c) (SST04.03.a)	Academic Content Knowledge Alignment: HPE03.06.a-Comprehensive Health and Physical Education, Emotional and Social Wellness (Health), Advocate to improve or maintain positive mental and emotional health for self and others - Demonstrate effective and respectful advocacy strategies in support of the needs and rights of

	<p>others</p> <p>HPE03.06.b-Comprehensive Health and Physical Education, Emotional and Social Wellness (Health), Advocate to improve or maintain positive mental and emotional health for self and others - Demonstrate support and respect for diversity</p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p> <p>SST04.03.a-Social Studies, Civics, Analyze how public policy - domestic and foreign - is developed at the local, state, and national levels and compare how policy-making occurs in other forms of government - Discuss multiple perspectives on local issues and options for participating in civic life</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):</p>
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<p>High School Expectations</p>
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> • NRFA 4.0 Implement practical reasoning for responsible action in families, workplaces and communities.

Evidence Outcomes - Students can:	21 st Century Skills and Readiness Competencies
<p>NRFA 4.2 Describe a particular recurring and evolving individual, family, workplace, or community concern. (HPE03.06.a, HPE03.06.b) (RWC04.10.a)</p> <p>NRFA 4.6 Generate reasonable actions for reaching goals/valued ends for a particular concern. (HPE03.05.a, HPE03.05.b) (RWC04.10.c)</p> <p>NRFA 4.7 Use adequate and reliable information to critique possible actions.</p> <p>NRFA 4.8 Evaluate potential short and long term consequences of possible actions on self, others, culture/society, and global environment. (RWC04.10.c) (SST02.02.e)</p> <p>NRFA 4.11 Design a plan for accomplishing a selected action.</p> <p>NRFA 4.12 Implement and monitor a plan of action based on established standards and valued ends. (RWC04.10.c)</p>	<p>Academic Content Knowledge Alignment:</p> <p>HPE03.05.a-Comprehensive Health and Physical Education, Emotional and Social Wellness (Health), Set goals, and monitor progress on attaining goals for future success - Analyze why setting a personal goal contributes to mental and emotional wellness</p> <p>HPE03.05.b-Comprehensive Health and Physical Education, Emotional and Social Wellness (Health), Set goals, and monitor progress on attaining goals for future success - Define a clear, attainable personal goal</p> <p>HPE03.06.a-Comprehensive Health and Physical Education, Emotional and Social Wellness (Health), Advocate to improve or maintain positive mental and emotional health for self and others - Demonstrate effective and respectful advocacy strategies in support of the needs and rights of others</p> <p>HPE03.06.b-Comprehensive Health and Physical Education, Emotional and Social Wellness (Health), Advocate to improve or maintain positive mental and emotional health for self and others - Demonstrate support and respect for diversity</p> <p>RWC04.10.a - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Analyze the purpose, question at issue, information, points of view, implications and consequences,</p>

	<p>inferences, assumptions and concepts inherent in thinking</p> <p>RWC04.10.c - Research and Reasoning - Effective problem-solving strategies require high-quality reasoning - Implement a purposeful and articulated process to solve a problem</p> <p>SST02.02.e-Social Studies, Geography, Explain and interpret geographic variables that influence the interaction of people, places, and environments - Explain how information and changing perceptions and values of places and environment influence personal actions</p> <p>Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...):</p>
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High School Expectations	
<p>Concepts and skills students know include:</p> <ul style="list-style-type: none"> NRFA 5.0 Demonstrate scientific inquiry and reasoning to gain factual knowledge and test theories on which to base judgments for action. 	
Evidence Outcomes - Students can:	21st Century Skills and Readiness Competencies
NRFA 5.5 Draw conclusions based on data and information that are judged to be reliable.	Academic Content Knowledge Alignment:



Family and Consumer Sciences Education 2009-2010 Standards



	Learning & Behavioral Skills (Inquiry, Application in Society & Technology & Nature of...)
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