



## FOOD SCIENCE, DIETETICS, AND NUTRITION CAREER PATHWAY STANDARDS

### DIRECTIONS

Use the rating scale to evaluate the student. Check the appropriate box to indicate the degree of competency. The A, P, B & L are not intended to represent the traditional school grading system. Ratings should reflect the student's achievement of the competencies rather than the grade given in the class.

#### HTR – A1.0

**Demonstrate an understanding of key aspects of the food science, dietetics, and nutrition industry and the role of the industry in the local, state, national, and global economies:**

##### A P B L

- A1.1 Define and compare core elements of the food science, dietetics, and nutrition industry from the supporting industries and regulatory agencies.
- A1.2 Evaluate the contributions of the various segments of the industry to local, state, national, and international economies.
- A1.3 Create a product depicting the different requirements and standards for employees in the industry, including education, training, licensures, and certifications.

#### HTR – A2.0

**Identify important workforce and organizational management concepts:**

##### A P B L

- A2.1 Find information on the primary business procedures for food science, dietetics, and nutrition organizations.
- A2.2 Explain the differences and importance of the main elements in day-to-day operational procedures at various types of food-related facilities.
- A2.3 Evaluate important management strategies for planning, decision making, shared responsibility, and negotiations.

#### HTR – A3.0

**Demonstrate the application of primary standards and regulations for safe food handling and sanitation practices:**

##### A P B L

- A3.1 Practice industry-recommended standards for personal grooming and hygiene.
- A3.2 Interpret safe and sanitary food-handling procedures as set forth by local, state, and federal health and safety codes, including reporting and dealing with violations of the food safety code.
- A3.3 Produce a product that integrates the use of procedures for preventing the spread of food-borne pathogens and illness, allergens, cross-contacts, and contaminants.

#### HTR – A4.0

**Recognize the relationship of basic nutritional principles and concepts to the physical and emotional well-being of individuals:**

##### A P B L

- A4.1 Understand the relationship of emotional, psychological, and physiological needs to food intake and natural hunger cues.
- A4.2 Analyze appropriate nutrient intake, diet, and energy expenditure for individuals of different ages and with different dietary and health needs.
- A4.3 Illustrate the anatomical structure and functions of the digestive system, including the biochemical processes involved in digestion, absorption, metabolism, energy balance, and food-drug interactions.
- A4.4 Formulate recommended diets for different dietary and health needs.

#### HTR – A5.0

**Demonstrate an understanding of the correlation of food and fitness to wellness:**

##### A P B L

- A5.1 Explain how research-based, recognized dietary guidelines relate to nutrition, fitness, and overall wellness.
- A5.2 Interpret nutritional information needed to implement and sustain change in behavior and lifestyle management.
- A5.3 Analyze popular diets for recommendations that are consistent with, or contrary to, approved dietary guidelines.
- A5.4 Analyze nutrient density as it relates to food quality and dietary choices for individual nutrition, fitness, and wellness goals.
- A5.5 Provide examples of how social and cultural norms and barriers relate to the implementation of nutrition, fitness, and wellness changes.

#### HTR – A6.0

**Identify the basics of community collaborative opportunities and methods of outreach in the field of nutrition, fitness, and wellness:**

##### A P B L

- A6.1 Classify the available community services, agencies, and outreach programs that provide nutrition, fitness, and wellness information and services.
- A6.2 Understand the differences in services and outreach methods of community organizations that provide nutrition, fitness, and wellness information and services.
- A6.3 Provide examples of the influence of cultural health-related practices and food preferences on the nutrition, fitness, and wellness of individuals.

#### HTR – A7.0

**Explain the basic principles of managing and operating food service outreach programs:**

##### A P B L

- A7.1 Identify the types of community-based and institutional programs that provide food and nutrition outreach services.
- A7.2 Summarize the factors that affect the management and operation of a food service outreach program.
- A7.3 Explain the training needs of an effective food service outreach staff.

#### HTR – A8.0

**Interpret the basic principles of chemistry and physics related to changes in foods and food products during preparation, processing, and preservation:**

##### A P B L

- A8.1 Recognize terminology, methods, and equipment used in the food science and technology industry.
- A8.2 Practice safe laboratory and equipment use and maintenance procedures.
- A8.3 Understand important chemical and physical changes that occur during food preparation.
- A8.4 Conduct scientific experiments using the scientific method.
- A8.5 Document experiments and maintain laboratory records.

#### HTR – A9.0

**Demonstrate and understanding of the basic principles of research and development, food analysis, and sensory evaluation in the field of food science and technology:**

##### A P B L

- A9.1 Understand the purpose, importance, and basic procedures of sensory evaluation experiments.
- A9.2 Explain quality control, assurance standards, and the procedures for each used in research and development.
- A9.3 Analyze research implications on food trends, value-added processing, genetic engineering, and irradiation.
- A9.4 Prepare and test formulas for developing new food products.
- A9.5 Test food products by using controls, variables, and random sampling.

### RATING SCALE

- A** = Advanced Demonstrates superior knowledge and skills; can work independently with no supervision.
- P** = Proficient Demonstrates proficient knowledge and skills; can work with limited supervision.
- B** = Basic Demonstrates minimal knowledge and skills; requires instruction and close supervision.
- L** = Limited Shows little or no knowledge or skill in this area.

#### HTR – A9.0 (Continued)

##### A P B L

- A9.6 Create a product that explores global, logistical, ecological, and economic impacts of food production and packaging methods, including genetic engineering.

#### HTR – A10.0

**Describe the fundamental concepts of marketing and public relations used in the dissemination of information about food science, dietetics, and nutrition:**

##### A P B L

- A10.1 Explain the differences between public relations, advertising, and provision of accurate information to consumers.
- A10.2 Understand the methods and importance of communicating accurate information to consumers about nutrition, food safety, and food products.
- A10.3 Evaluate the psychological effects of market branding, subliminal messages, and advertising on consumer choices.
- A10.4 Explain the use of technical reports in preparing and disseminating information.
- A10.5 Compare and contrast the influence of consumer trends and expectations on product development and marketing.

## HTR ANCHOR STANDARDS

### ANCHOR – 1.0 Academics

**Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the Hospitality, Tourism, and Recreation academic alignment matrix for identification of standards.\***

##### A P B L

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### ANCHOR – 2.0 Communications

**Acquire and accurately use Hospitality, Tourism, and Recreation sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats. (Direct alignment with LS 9-10, 11-12.6)\***

##### A P B L

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### ANCHOR – 3.0 Career Planning and Management

**Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans. (Direct alignment with SLS 11-12.2)\***

##### A P B L

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### ANCHOR – 4.0 Technology

**Use existing and emerging technology, to investigate, research, and produce products and services, including new information, as required in the Hospitality, Tourism, and Recreation sector workplace environment. (Direct alignment with WS 11-12.6)\***

##### A P B L

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### ANCHOR – 5.0 Problem Solving and Critical Thinking

**Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the Hospitality, Tourism, and Recreation, using critical and creative thinking; logical reasoning, analysis, inquiry, and problem-solving techniques. (Direct alignment with WS 11-12.7)\***

##### A P B L

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### ANCHOR – 6.0 Health and Safety

**Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the Hospitality, Tourism, and Recreation sector workplace environment. (Direct alignment with RSTS 9-10, 11-12.4)\***

##### A P B L

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### ANCHOR – 7.0 Responsibility and Flexibility

**Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the Hospitality, Tourism, and Recreation sector workplace environment and community settings. (Direct alignment with SLS 9-10, 11-12.1)\***

##### A P B L

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### ANCHOR – 8.0 Ethics and Legal Responsibilities

**Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms. (Direct alignment with SLS 11-12.1d)\***

##### A P B L

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### ANCHOR – 9.0 Leadership and Teamwork

**Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution as practiced in the career technical student organization (FHA-HERO: The California Affiliate of FCCLA). (Direct alignment with SLS 11-12.1b)\***

##### A P B L

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### ANCHOR – 10.0 Technical Knowledge and Skills

**Apply essential technical knowledge and skills common to all pathways in the Hospitality, Tourism, and Recreation sector, following procedures when carrying out experiments or performing technical tasks. (Direct alignment with WS 11-12.6)\***

##### A P B L

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### ANCHOR – 11.0 Demonstration and Application

**Demonstrate and apply the knowledge and skills contained in the Hospitality, Tourism, and Recreation anchor standards, pathway standards, and performance indicators in classroom, laboratory and workplace settings, and through the career technical student organization (FHA-HERO: The California Affiliate of FCCLA).\***

##### A P B L

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**HOME ECONOMICS CAREERS AND TECHNOLOGY: HOSPITALITY, TOURISM, AND RECREATION (HTR) INDUSTRY SECTOR**

**FOOD SCIENCE, DIETETICS, AND NUTRITION CAREER PATHWAY COMPETENCY PROFILE**

**PERSONAL INFORMATION**

Instructional Career Pathway Program: \_\_\_\_\_ Career Objective: \_\_\_\_\_  
 Name: \_\_\_\_\_ School/ROCP: \_\_\_\_\_ Today's Date: \_\_\_\_\_  
 Address: \_\_\_\_\_ School District: \_\_\_\_\_  
 City, State, Zip Code: \_\_\_\_\_ School/ROCP Phone: \_\_\_\_\_ School/ROCP Fax: \_\_\_\_\_

**SECONDARY EDUCATION AND TRAINING**

METHOD OF INSTRUCTION *C.C., C.V.E., C/L-B.E.	INSTRUCTOR'S NAME	ENROLLMENT DATE	COMPLETION DATE	TOTAL CLASS HOURS	TOTAL LABORATORY HOURS	TOTAL ON-THE-JOB TRAINING HOURS	GRADE POINT AVERAGE

**WORK SITE/ON-THE-JOB TRAINING/WORK EXPERIENCE**

JOB TITLE	TRAINING STATION	DURATION OF TRAINING	COMPANY NAME	SUPERVISOR'S NAME	SUPERVISOR'S PHONE

\_\_\_\_\_  
 (Student Name)  
 has successfully completed course work and competencies for the Food Science, Dietetics, and Nutrition Career Pathway.

\_\_\_\_\_  
 (Student Signature and Date)

\_\_\_\_\_  
 (Instructor Signature and Date)

\_\_\_\_\_  
 (Advisory Committee Member Signature and Date)

**POST-SECONDARY EDUCATION AND TRAINING**

DATE	INSTITUTION	ATTENDING Y/N	COURSES ENROLLED IN

**EMPLOYMENT STATUS**

NOT IN LABOR FORCE	UNEMPLOYED Y/N	MILITARY STATUS	EMPLOYED Y/N	EMPLOYER'S NAME	ADDRESS	SUPERVISOR'S NAME	JOB TITLE	RELATED TO TRAINING	SALARY

Abbreviation Explanation: \*C.C. = Community Classroom \*C.V.E. = Cooperative Vocational Education \*C/L-B.E. = Classroom/Laboratory-Based Education  
 Prepared by the Home Economics Careers and Technology Education Staff, California Department of Education, in collaboration with the HECT Curriculum and Professional Development Project, CSU Fresno.