

Food Sciences and Dietetics (FSD)

Students will integrate the knowledge, skills, and practices required for careers in food science, food technology, dietetics, and nutrition. **FCS.FSD.1**

A Analyze career paths within food science, food technology, dietetics, and nutrition industries. **FCS.FSD.1.A**

Beginning (b)

- 1 Identify careers in food science, technology, dietetics, and nutrition. **FCS.FSD.1.A.B.1**
- 2 Define labor market information and its impact on employment opportunities within food science and dietetics. **FCS.FSD.1.A.B.2**
- 3 Identify job skills in completing tasks at work. **FCS.FSD.1.A.B.3**
- 4 List professional organizations related to food science, food technology, dietetics, and nutrition. **FCS.FSD.1.A.B.4**

Intermediate (i)

- 1 Explain the roles and functions of individuals engaged in food science, food technology, dietetics, and nutrition careers. **FCS.FSD.1.A.I.1**
- 2 Analyze opportunities for employment across local, state, and national levels within food science and dietetics. **FCS.FSD.1.A.I.2**
- 3 Identify skills, knowledge, and dispositions that are necessary to work in the food service, dietetics, and nutrition industries. **FCS.FSD.1.A.I.3**
- 4 Summarize professional organizations and the purpose(s) these serve. **FCS.FSD.1.A.I.4**

Advanced (a)

- 1 Analyze education, training requirements, and employment or entrepreneurial opportunities for career paths in food science, food technology, dietetics, and nutrition. **FCS.FSD.1.A.A.1**
- 2 Analyze the correlation between food science, dietetics, and nutrition occupations and local, state, national, and global economies. **FCS.FSD.1.A.A.2**
- 3 Create an employment portfolio to communicate knowledge and skills in food science, food technology, dietetics, and nutrition careers. **FCS.FSD.1.A.A.3**
- 4 Analyze the role of professional organizations in food science, food technology, dietetics, and nutrition careers. **FCS.FSD.1.A.A.4**

B Apply risk management procedures to food safety, food testing, and sanitation. FCS.FSD.1.B

Beginning (b)

- 1 Describe factors that contribute to foodborne illness. FCS.FSD.1.B.B.1
- 2 Identify potential sources of food contamination. FCS.FSD.1.B.B.2
- 3 Recognize principles of personal and workplace health and hygiene. FCS.FSD.1.B.B.3
- 4 Identify proper procedures for receiving, storing, and preparation of raw and prepared foods. FCS.FSD.1.B.B.4
- 5 Discuss safely handling hazardous materials. FCS.FSD.1.B.B.5
- 6 Identify recyclable materials. FCS.FSD.1.B.B.6

Intermediate (i)

- 1 Analyze food service management safety and sanitation programs. FCS.FSD.1.B.I.1
- 2 Explain the process of controlling potential contamination in the flow of food. FCS.FSD.1.B.I.2
- 3 Explain the importance of practices and procedures to ensure personal and workplace health and hygiene. FCS.FSD.1.B.I.3
- 4 Practice proper storage of food. FCS.FSD.1.B.I.4
- 5 Classify cleaning materials and sanitizers and their correct use. FCS.FSD.1.B.I.5
- 6 Demonstrate waste disposal and recycling methods. FCS.FSD.1.B.I.6

Advanced (a)

- 1 Implement industry standards for documenting, investigating, and reporting foodborne illness. FCS.FSD.1.B.A.1
- 2 Utilize the hazard analysis critical control point (HACCP) during all food handling processes (the flow of food) to minimize the risks of foodborne illness. FCS.FSD.1.B.A.2
- 3 Demonstrate practices and procedures that assure personal and workplace health and hygiene. FCS.FSD.1.B.A.3
- 4 Demonstrate standard procedures for receiving, storage, and preparation of raw and prepared foods. FCS.FSD.1.B.A.4
- 5 Implement current Occupational Safety and Health Administration (OSHA) and state requirements in handling hazardous materials. FCS.FSD.1.B.A.5
- 6 Analyze waste disposal methods, including recycling and composting. FCS.FSD.1.B.A.6

C Evaluate nutrition principles, food plans, preparation techniques, and specialized dietary plans. FCS.FSD.1.C

Beginning (b)

- 1 Identify nutrients. FCS.FSD.1.C.B.1
- 3 Identify factors that influence personal food and nutrition choices. FCS.FSD.1.C.B.3
- 2 Identify ways to preserve nutrients in food preparation. FCS.FSD.1.C.B.2
- 4 Identify unit measurements. FCS.FSD.1.C.B.4
- 5 Discuss the health benefits of foods. FCS.FSD.1.C.B.5
- 6 Describe food exchange groups. FCS.FSD.1.C.B.6

Intermediate (i)

- 1 Describe the functions of nutrients to meet dietary needs. FCS.FSD.1.C.I.1
- 2 Practice food production techniques used to prepare food. FCS.FSD.1.C.I.2
- 3 Demonstrate decisionmaking for food choices. FCS.FSD.1.C.I.3
- 4 Convert a recipe. FCS.FSD.1.C.I.4
- 5 Compare food options for health benefits. FCS.FSD.1.C.I.5
- 6 Categorize foods into exchange groups. FCS.FSD.1.C.I.6

Advanced (a)

- 1 Assess nutrient requirements across the lifespan, addressing the diversity of people, cultures, and religions. FCS.FSD.1.C.A.1
- 2 Apply principles of food production to maximize nutrient retention in prepared foods. FCS.FSD.1.C.A.2
- 3 Assess the influence of cultural, socioeconomic, and psychological factors on food, nutrition, and behavior. FCS.FSD.1.C.A.3
- 4 Analyze recipe or formula proportions and modifications for food production. FCS.FSD.1.C.A.4
- 5 Critique the selection of foods to promote a healthy lifestyle. FCS.FSD.1.C.A.5
- 6 Plan menus, applying the exchange system to meet various nutrient needs. FCS.FSD.1.C.A.6

D Apply basic concepts of nutrition and nutrition therapy in a variety of settings, considering social, geographical, cultural, and global influences. FCS.FSD.1.D

Beginning (b)

- 1 Summarize nutritional information to support planning for caregiving. FCS.FSD.1.D.B.1
- 2 Identify ways to maintain health and prevent disease. FCS.FSD.1.D.B.2

Intermediate (i)

- 1 Determine when to provide a selective menu approach in nutritional therapy settings. FCS.FSD.1.D.I.1
- 2 Propose a nutritional plan for health maintenance and disease prevention. FCS.FSD.1.D.I.

Advanced (a)

- 1 Construct a modified diet based on nutritional needs and health conditions. FCS.FSD.1.D.A.1
- 2 Design instruction on nutrition to promote wellness and disease prevention. FCS.FSD.1.D.A.2

E Examine the use of current trends in food product development and marketing. FCS.FSD.1.E

Beginning (b)

- 1 Identify marketing strategies used in the food industry. FCS.FSD.1.E.B.1
- 2 Identify information used to make marketing decisions. FCS.FSD.1.E.B.2
- 3 Prepare food for presentation and assessment. FCS.FSD.1.E.B.3
- 4 Maintain test kitchen, laboratory, and related equipment and supplies. FCS.FSD.1.E.B.4

Intermediate (i)

- 1 Identify factors that affect food preferences in the marketing of food. FCS.FSD.1.E.I.1
- 2 Collect data to assist in decisionmaking and marketing decisions. FCS.FSD.1.E.I.2
- 3 Conduct sensory evaluations of food products. FCS.FSD.1.E.I.3
- 4 Conduct testing for safety of food products, utilizing available technology. FCS.FSD.1.E.I.4

Advanced (a)

- 1 Analyze various factors that affect food preferences in the marketing of food to a variety of populations. FCS.FSD.1.E.A.1
- 2 Analyze data in statistical analysis when making development and marketing decisions. FCS.FSD.1.E.A.2
- 3 Interpret data collected from sensory evaluations for product improvement. FCS.FSD.1.E.A.3
- 4 Implement procedures that affect quality product performance and sustainability. FCS.FSD.1.E.A.4

F Demonstrate food science, dietetics, and nutrition management principles and practices. FCS.FSD.1.F

Beginning (b)

- 1 Identify food preferences for individuals and families. FCS.FSD.1.F.B.1
- 2 Compare and contrast food preparation and production. FCS.FSD.1.F.B.2
- 3 Identify parts of a recipe. FCS.FSD.1.F.B.3
- 4 Identify trends in the food market. FCS.FSD.1.F.B.4
- 5 Identify cost-effective procedures. FCS.FSD.1.F.B.5
- 6 Distinguish between the types of supplies (perishable and nonperishable) needed in an organization. FCS.FSD.1.F.B.6
- 7 Describe specific points of time, temperature, date markings, cross contamination, handwashing, and personal hygiene for safe food preparation. FCS.FSD.1.F.B.7

Intermediate (i)

- 1 Build menus to customer or client preferences. FCS.FSD.1.F.I.1
- 2 Implement food preparation, production, and testing systems. FCS.FSD.1.F.I.2
- 3 Utilize a standardized recipe. FCS.FSD.1.F.I.3
- 4 Analyze new products using the most current guidelines and innovations in technology. FCS.FSD.1.F.I.4
- 5 Compare procedures used for cost savings. FCS.FSD.1.F.I.5
- 6 Establish Periodic Automatic Replacement (PAR) levels for the purchase of supplies based on an organization's needs. FCS.FSD.1.F.I.6
- 7 Identify potential food safety hazards and implement appropriate control measures to mitigate risks and ensure safe food handling practices. FCS.FSD.1.F.I.7

Advanced (a)

- 1 Manage food production to meet needs and preferences of diverse customer populations. FCS.FSD.1.F.A.1
- 2 Apply standards for food quality and sustainability. FCS.FSD.1.F.A.2
- 3 Create standardized recipes. FCS.FSD.1.F.A.3
- 4 Develop new food products. FCS.FSD.1.F.A.4
- 5 Implement procedures that provide costeffective products. FCS.FSD.1.F.A.5
- 6 Implement a system to maintain established par levels. FCS.FSD.1.F.A.6
- 7 Utilize Food Code Points of time, temperature, date markings, cross contamination, handwashing, and personal hygiene as criteria for safe food preparation. FCS.FSD.1.F.A.7

G Demonstrate principles of food biology and chemistry. FCS.FSD.1.G

Beginning (b)

- 1 Define elements, compounds, and mixtures in foods and food products. FCS.FSD.1.G.B.1
- 2 Describe thermodynamics. FCS.FSD.1.G.B.2
- 3 Define acids and bases. FCS.FSD.1.G.B.3
- 4 Classify simple and complex carbohydrates. FCS.FSD.1.G.B.4
- 5 Categorize lipids and proteins in foods. FCS.FSD.1.G.B.5
- 6 Define molds and enzymes. FCS.FSD.1.G.B.6
- 7 Identify food preservation methods and techniques. FCS.FSD.1.G.B.7

Intermediate (i)

- 1 Compare elements and compounds in foods and food products. FCS.FSD.1.G.I.1
- 2 Apply thermodynamics to food products. FCS.FSD.1.G.I.2
- 3 Utilize the pH scale to classify food items. FCS.FSD.1.G.I.3
- 4 Compare the molecular structure of simple and complex carbohydrates. FCS.FSD.1.G.I.4
- 5 Differentiate lipid and protein functions. FCS.FSD.1.G.I.5
- 6 Identify food products that contain molds or enzymes. FCS.FSD.1.G.I.6
- 7 Practice food preservation methods and techniques. FCS.FSD.1.G.I.7