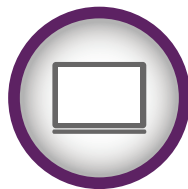


IOWA CAREER AND TECHNICAL EDUCATION STANDARDS

FINAL REPORT 2019



BUSINESS, MANAGEMENT & ADMINISTRATION • AGRICULTURE, FOOD & NATURAL
RESOURCES • INFORMATION SOLUTIONS • APPLIED SCIENCES, TECHNOLOGY,
ENGINEERING & MANUFACTURING • HEALTH SCIENCES • HUMAN SERVICES



HS/FCS Foundational Standards	
1.0	Comprehensive Standard Integrate knowledge, skills, and practices needed for a career in the human services cluster (family and human services, hospitality and tourism, education and training, housing and apparel).
1.1	Content Standard Analyze career paths within human service industries.
	Competencies
1.1.1	Explain roles and functions of individuals engaged in human service careers.
1.1.2	Analyze opportunities for employment and entrepreneurial endeavors.
1.1.3	Summarize education and training requirements and opportunities for career paths.
1.1.4	Analyze the impact of the industry on local, state, national, and global economies.
1.1.5	Create an employment portfolio to communicate skills needed for careers in human services.
1.1.6	Analyze the role of professional organizations and credentials in human service professions.
2.0	Comprehensive Standard Integrate multiple life roles and responsibilities in family, work, and community settings.
2.1	Content Standard Analyze strategies to manage multiple roles and responsibilities (individual, family, career, community, and global).
	Competencies
2.1.1.	Summarize local and global policies, issues, and trends in workplace, community, and family dynamics that affect individuals and families.
2.1.2	Analyze potential effects of various career path decisions on balancing work and family.
2.1.3	Develop a life plan, including pathways to acquiring the knowledge and skills needed to achieve individual, family, and career goals.
2.2	Content Standard Demonstrate transferable knowledge, attitudes, and technical and employability skills in school, community and workplace settings.
	Competencies
2.2.1	Analyze potential career choices to determine the knowledge, skills, attitudes, and opportunities associated with each career.
2.2.2	Demonstrate job seeking and job keeping skills.
2.2.3	Apply communication skills in school, community and workplace settings and with diverse populations.
2.2.4	Demonstrate collaborative skills in school, community and workplace settings and with diverse populations.
2.2.5	Demonstrate leadership skills and abilities in school, workplace and community settings.
2.2.6	Demonstrate employability skills, work ethics, and professionalism.
2.3	Content Standard Evaluate the reciprocal effects of individual and family participation in community and civic activities.
	Competencies

HS/FCS Foundational Standards	
2.3.1	Demonstrate skills that individuals and families can utilize to support civic engagement in community activities.
2.3.2	Analyze personal and family assets and skills that provide service to the community.
2.3.3.	Analyze community resources and systems of formal and informal support available to individuals and families.
2.3.4	Identify ways individuals and families can influence change in policies, agencies, and institutions that affect individuals and families.
3.0	Comprehensive Standard Demonstrate respectful and caring relationships in the family, workplace and community.
3.1	Content Standard Analyze functions and expectations of various types of relationships.
	Competencies
3.1.1	Analyze processes for building and maintaining interpersonal relationships.
3.1.2	Predict the effects of various stages of the family life cycle on interpersonal relationships.
3.1.3	Compare physical, emotional, spiritual and intellectual functioning in stable and unstable relationships.
3.1.4	Analyze factors that contribute to healthy and unhealthy relationships.
3.1.5	Analyze processes for handling unhealthy relationships.
3.1.6	Demonstrate stress management strategies for family, work, and community settings.
3.2	Content Standard Analyze personal needs and characteristics and their effects on interpersonal relationships.
	Competencies
3.2.1	Analyze the effects of personal characteristics on relationships.
3.2.2	Analyze the effect of personal need on relationships.
3.2.3	Analyze the effects of self-esteem and self-image on relationships.
3.2.4	Analyze the effects of life span events and conditions on relationships.
3.2.5	Explain the effects of personal standards and behaviors on interpersonal relationships.
3.3	Content Standard Demonstrate communication skills that contribute to positive relationships.
	Competencies
3.3.1	Analyze communication styles and their effects on relationships.
3.3.2	Demonstrate verbal and nonverbal behaviors and attitudes that contribute to effective communication.
3.3.3	Demonstrate effective listening and feedback techniques.
3.3.4	Analyze strategies to overcome communication barriers in family, community and work settings.
3.3.5	Apply ethical principles of communication in family, community and work settings.
3.3.6	Analyze the effects of technology on communications in family, work, and community settings.
3.3.7	Analyze the roles and functions of communications in family, work, and community settings.

HS/FCS Foundational Standards	
3.4	Content Standard Evaluate effective conflict prevention and management techniques.
	Competencies
3.4.1	Analyze the origin and development of attitudes and behaviors regarding conflict.
3.4.2	Explain how similarities and differences among people affect conflict prevention and management.
3.4.3	Apply the roles of decision making and problem solving in reducing and managing conflict.
3.4.4	Demonstrate nonviolent strategies that address conflict.
3.4.5	Demonstrate effective responses to harassment.
3.4.6	Assess community resources that support conflict prevention and management.
3.5	Content Standard Demonstrate teamwork and leadership skills in the family, workplace, and community.
	Competencies
3.5.1	Create an environment that encourages and respects the ideas, perspectives, and contributions of all group members.
3.5.2	Demonstrate strategies to motivate, encourage, and build trust in group members.
3.5.3	Demonstrate strategies that utilize the strengths and minimize the limitations of team members.
3.5.4	Demonstrate techniques that develop team and community spirit.
3.5.5	Demonstrate ways to organize and delegate responsibilities.
3.5.6	Create strategies to integrate new team members.
3.5.7	Demonstrate processes for cooperating, compromising, and collaborating.
3.6	Content Standard Demonstrate standards that guide behavior in interpersonal relationships.
	Competencies
3.6.1	Apply ethical guidelines when assessing interpersonal issues and situations.
3.6.2	Apply critical thinking and ethical standards when making judgments and taking action.
3.6.3	Demonstrate ethical behavior in family, workplace, and community settings.
3.6.4	Compare and contrast points of view regarding current ethical issues.
4.0	Comprehensive Standard Analyze factors that influence human growth and development.
4.1	Content Standard Analyze principles of human growth and development across the life span.
	Competencies
4.1.1	Analyze physical, emotional, social, moral, and cognitive development.
4.1.2	Analyze interrelationships among physical, emotional, social, moral, and cognitive aspects of human growth and development.
4.1.3	Analyze current and emerging research about human growth and development, including but not limited to brain development research.
4.2	Content Standard Analyze conditions that influence human growth and development.
	Competencies
4.2.1	Analyze the influences of heredity and environment on human growth and development.

HS/FCS Foundational Standards	
4.2.2	Analyze the influences of social, economic, and technological forces on individual growth and development.
4.2.3	Analyze the influences of gender, ethnicity, and culture on individual development.
4.2.4	Analyze the influences of life events on individuals' physical, emotional, social, moral and cognitive development.
4.2.5	Analyze geographic, demographic, political, and global influences on human growth and development.
4.3	Content Standard Analyze strategies that promote growth and development across the life span.
	Competencies
4.3.1	Analyze the role of nurturance on human growth and development.
4.3.2	Analyze the role of communication on human growth and development.
4.3.3	Analyze the role of education and family and social services support systems and resources in meeting human growth and development needs.
5.0	Comprehensive Standard Evaluate the effects of parenting roles and responsibilities on strengthening the well-being of individuals, families, and society.
5.1	Content Standard Analyze roles and responsibilities of parenting.
	Competencies
5.1.1	Analyze parenting roles across the life span.
5.1.2	Analyze expectations and responsibilities of parenting.
5.1.3	Analyze influences of parenting practices on individuals, families, and society.
5.1.4	Analyze societal conditions that influence parenting across the life span.
5.1.5	Explain cultural differences and similarities in roles and responsibilities of parenting.
5.2	Content Standard Evaluate parenting practices that maximize human growth and development.
	Competencies
5.2.1	Analyze nurturing practices that support human growth and development.
5.2.2	Apply communication strategies that promote emotional well-being in family members.
5.2.3	Assess common practices and emerging research about influences of discipline on human growth and development.
5.2.4	Analyze the effects of abuse and neglect on children and families and determine methods for prevention.
5.2.5	Apply criteria for selecting care and services for children and youth.
5.3	Content Standard Evaluate external support systems that provide services for parents.
	Competencies
5.3.1	Analyze community resources and services available to families.
5.3.2	Analyze community resources that provide opportunities related to parenting.
5.3.3	Analyze current laws and policies related to parenting.
5.3.4	Analyze impacts of advocacy on laws and policies related to parenting.
5.4	Content Standard

HS/FCS Foundational Standards	
	Analyze physical and emotional factors related to beginning the parenting process.
	Competencies
5.4.1	Analyze biological processes related to prenatal development, birth, and health of child and mother.
5.4.2	Analyze social, emotional, and environmental factors of prenatal development and birth in relation to the health of parents and child.
5.4.3	Analyze alternatives to biological parenthood.
5.4.4	Examine legal and ethical impacts of current and emerging technology on fertility and family planning.
6.0	Comprehensive Standard Demonstrate nutrition and wellness practices that enhance individual and family well-being.
6.1	Content Standard Analyze factors that influence nutrition and wellness practices across the life span. Competencies
6.1.1	Explain physical, emotional, social, financial, psychological, cultural, and spiritual components of individual and family wellness.
6.1.2	Investigate the effects of psychological, cultural, and social influences on food choices and other nutrition practices.
6.1.3	Investigate the governmental, economic, and technological influences on food choices and practices.
6.1.4	Analyze the effects of global, regional, and local events and conditions on food choices and practices.
6.1.5	Analyze legislation and regulations related to nutrition and wellness.
6.2	Content Standard Examine the nutritional needs of individuals and families in relation to health and wellness across the life span. Competencies
6.2.1	Evaluate the effect of nutrition on health, wellness and performance.
6.2.2	Analyze the relationship of nutrition and wellness to individual and family health throughout the life span.
6.2.3	Analyze the effects of food and diet fads, food addictions, and eating disorders on wellness.
6.2.4	Analyze sources of food and nutrition information, including food labels, related to health and wellness.
6.3	Content Standard Demonstrate ability to acquire, handle, and use foods to meet nutrition and wellness needs of individuals and families across the life span. Competencies
6.3.1	Evaluate the effect of nutrition on health, wellness and performance.
6.3.2	Analyze the relationship of nutrition and wellness to individual and family health throughout the life span.
6.3.3	Analyze the effects of food and diet trends, fads, , food addictions, and eating disorders on wellness.
6.3.4	Analyze sources of food and nutrition information, including food labels, related to health and

HS/FCS Foundational Standards	
	wellness.
6.3.5	Apply current dietary guidelines in planning to meet nutrition and wellness needs.
6.3.6	Design strategies that address the health and nutritional recommendations for individuals and families, including those with special needs.
6.3.7	Demonstrate ability to select, store, prepare, and serve nutritious, aesthetically pleasing food and food product.
6.3.8	Evaluate policies and practices that impact food security, sustainability, food integrity, and nutrition and wellness of individuals and families.
6.4	Content Standard Evaluate factors that affect food safety from production through consumption.
	Competencies
6.4.1	Analyze conditions and practices that promote safe food handling.
6.4.2	Analyze safety and sanitation practices.
6.4.3	Analyze how changes in local, regional, national, and international food production and distribution systems influence the food supply, including sustainability, organic food production and the impact of genetically modified foods.
6.4.4	Investigate federal, state, and local inspection and labeling systems that protect the health of individuals and the public.
6.4.5	Analyze foodborne illness factors, including causes, potentially hazardous foods, and methods of prevention.
6.4.6	Analyze current consumer information about food safety and sanitation.
6.5	Content Standard Evaluate the influence of science and technology on food, nutrition, and wellness.
	Competencies
6.5.1	Investigate how scientific and technical advances influence the nutrient content, availability, and safety of foods.
6.5.2	Analyze how the scientific and technical advances in food processing, storage, product development, and distribution influence nutrition and wellness.
6.5.3	Analyze the effects of technological advances on selection, preparation and home storage of food.
6.5.4	Analyze the effects of food science and technology on meeting nutritional needs.
7.0	Comprehensive Standard Evaluate management practices related to the human, economic, and environmental resources in a global context.
7.1	Content Standard Demonstrate management of individual and family resources such as food, clothing, shelter, health care, recreation, transportation, time, and human capital.
	Competencies
7.1.1	Apply time management, organizational, and process skills to prioritize tasks and achieve goals.
7.1.2	Analyze how individuals and families make choices to satisfy needs and wants.
7.1.3	Analyze decisions about providing safe and nutritious food for individuals and families.

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7.2	Content Standard Analyze the relationship between the global environment and family and consumer resources.
	Competencies
7.2.1	Analyze individual and family responsibility in relation to the environmental trends and issues.
7.2.2	Summarize environmental trends and issues affecting families and future generations.
7.2.3	Demonstrate behaviors that conserve, reuse, and recycle resources to maintain the environment.
7.2.4	Evaluate government regulations for conserving natural resources.
7.3	Content Standard Analyze policies that support consumer rights and responsibilities.
	Competencies
7.3.1	Analyze state and federal policies and laws providing consumer protection.
7.3.2	Analyze how policies become laws relating to consumer rights.
7.3.3	Apply skills to seek information regarding consumer rights.
7.4	Content Standard Evaluate the effects of technology on individual and family resources in a global context.
	Competencies
7.4.1	Analyze the types of technology and software programs that affect family and consumer decision-making.
7.4.2	Analyze how media trends and technological advances influence family and consumer decisions.
7.4.3	Assess the use of technology and its effect on quality of life.
7.5	Content Standard Analyze relationships between the economic system and consumer actions in a global context.
	Competencies
7.5.1	Analyze individual and family roles in the economic system.
7.5.2	Analyze economic effects of laws and regulations that pertain to consumers and providers of services.
7.6	Content Standard Demonstrate management of financial resources to meet the goals of individuals and families across the life span.
	Competencies
7.6.1	Evaluate the need for personal and family financial planning.
7.6.2	Apply financial management principles to individual and family financial practices.
7.6.3	Apply management principles and risk management strategies (including insurance) to decisions about asset protection and financial health for individuals and families.
7.6.4	Evaluate personal and legal documents related to effective management of individual and family finances.
7.6.5	Analyze the risk factors for consumers who are unbanked.
7.6.6	Evaluate banks, credit unions, payday lenders, and check cashing services within other

HS/FCS Foundational Standards	
	businesses where individuals and family members turn for money management and cash flow options.
7.7	Content Standard
	Demonstrate the ability to use knowledge and skills to manage one's financial resources effectively for a lifetime of financial security.
	Competencies
7.7.1	Demonstrate management of individual and family finances by applying reliable information and systematic decision-making.
7.7.2	Analyze how education, income, career, and life choices relate to achieving financial goals.
7.7.3	Analyze financial goals, budgets, and expense tracking to understand effective money management strategies.
7.7.4	Manage credit and debt to remain both creditworthy and financially secure.
7.7.5	Analyze the features of insurance, its role in balancing risk and benefits in financial planning.
7.7.6	Analyze saving and investing to build financial security and wealth.
7.7.7	Analyze the difference between net and gross pay, the impact of taxes, and the added financial benefits an employer may provide.
7.8	Content Standard
	Analyze factors, including cultural, political, and geographical influences, that affect consumer advocacy.
7.8.1	Demonstrate strategies that enable consumers to become advocates.
7.8.2	Analyze the effects of consumer protection laws on advocacy.
7.8.3	Apply strategies to reduce the risk of consumer fraud and identity theft.
7.8.4	Analyze the role of media in consumer advocacy and consumer fraud.
7.8.5	Examine the effects of government, business, and industry regulations, policies, and procedures on advocacy.
8.0	Comprehensive Standard
	Evaluate product development testing and presentation processes
8.1	Content Standard
	Demonstrate skills needed for product development, testing, and presentation.
8.1.1	Conduct market research to determine consumer trends and product development needs for diverse populations.
8.1.2	Design or analyze a consumer product.
8.1.3	Analyze features, prices, product information, styles, and performance of consumer goods for potential global impact and trade-offs among the components.
8.1.4	Evaluate a product utilizing valid and reliable testing procedures.
8.1.5	Apply statistical analysis processes to interpret, summarize, and report data from tests.
8.1.6	Evaluate the labeling, packaging, and support materials of consumer goods.
8.1.7	Demonstrate a plan to educate an audience about a new product on the consumer market.
8.1.8	Utilize appropriate marketing and sales techniques to aid consumers in the selection of goods and services that meet consumer needs.
9.0	Comprehensive Standard
	Evaluate safety and sanitation processes
9.1	Content Standard

HS/FCS Foundational Standards	
	Demonstrate sanitation procedures for a clean and safe environment.
	Competencies
9.1.2	Analyze the various types of cleaning methods and their environmental effects.
9.1.3	Summarize federal and state regulations regarding safe handling, usage, and storage of chemicals.
9.1.4	Apply Occupational Safety and Health Administration (OSHA) regulations to safety procedures for bloodborne pathogens present in blood and body fluids.
9.1.5	Select a pest control system appropriate for the facility and the type(s) of pests likely to be present.
9.1.6	Utilize Centers for Disease Control (CDC) standards.
9.1.7	Integrate Americans with Disabilities Act (ADA) regulations.
9.2	Content Standard Apply hazardous materials and waste management procedures.
	Competencies
9.2.1	Investigate local, federal, and state regulations and geographic and cultural influences regarding waste management.
9.2.2	Demonstrate a waste minimization plan.
9.2.3	Practice a recycling program for conservation of resources.
9.2.4	Record presence of hazardous materials and occurrence of hazardous situations accurately and communicate to appropriate authorities.
9.2.5	Describe procedures for safely handling and storing hazardous materials and waste products.
9.2.6	Design energy efficient methods for waste management in diverse settings.
9.2.7	Investigate safe storage and disposal of pesticides.
9.3	Content Standard Demonstrate a work environment that provides safety and security.
	Competencies
9.3.1	Design procedures for external and internal emergencies.
9.3.2	Apply security procedures.
9.3.3	Demonstrate safe procedures in the use, care, and storage of equipment.
9.3.4	Apply safety and security procedures as required by Hazard Analysis and Critical Control Point (HACCP), Occupational Safety and Health Administrations (OSHA), and other agencies.
9.3.5	Apply procedures for control of infection and infectious materials.

Human and Family Services	
10.0	Comprehensive Standard Synthesize knowledge, skills, and practices required for careers in family & human services.
10.1	Content Standard Analyze factors in providing family and human services.
	Competencies
10.1.1	Describe local, state, and national agencies and informal support resources providing human services.
10.1.2	Analyze professional, ethical, legal, and safety issues for human services employees.
10.1.3	Evaluate licensing laws and regulations that affect service providers and their participants.
10.1.4	Analyze harmful, fraudulent, unethical, and deceptive human services practices.
10.1.5	Summarize the rights and responsibilities of human service participants and their families.
10.1.6	Analyze effective self-advocacy strategies for human services professionals.
10.1.7	Investigate community-networking opportunities in family and human services.
10.2	Content Standard Demonstrate professional behaviors, skills, and knowledge in providing family and human services.
	Competencies
10.2.1	Evaluate rules, regulations, legal and work site policies that affect employer, employee, personal, and family rights and responsibilities.
10.2.2	Demonstrate professional and ethical behavior with peers in a variety of settings.
10.2.3	Analyze procedures for maintaining accurate, secure, and confidential documentation and submission practices.
10.2.4	Perform formal and informal assessment practices that evaluate participants' strengths, needs, preferences, and interests across the life span.
10.2.5	Demonstrate use of current and evolving technology in human services.
10.3	Content Standard Analyze the impact of conditions that could influence the well-being of individuals and families.
	Competencies
10.3.1	Investigate health, wellness, financial and safety issues of individual and families with a variety of conditions that could influence their well-being.
10.3.2	Analyze the use of resources in making choices that satisfy needs and wants of individuals, families, and communities.
10.3.3	Analyze management and living environment issues of individuals and family conditions that influence their well-being.
10.3.4	Analyze personal, social, emotional, economic, vocational, educational, and recreational issues of individuals and family conditions that influence their well-being.
10.3.5	Differentiate between situations that require personal prevention or intervention and those situations that require professional assistance.

Human and Family Services	
10.3.6	Analyze situations which require crisis intervention.
10.3.7	Summarize the appropriate support needed to address selected human services issues.
10.3.8	Summarize information about procuring and maintaining health care and health insurance to meet the needs of individuals and family members.
10.4	Content Standard Evaluate services for individuals and families with a variety of conditions that could impact their well-being.
	Competencies
10.4.1	Describe needs and accommodations for people with a variety of conditions that could affect their well-being.
10.4.2	Apply consumer skills to acquire and maintain transportation that meets the needs of individuals and family members.
10.4.3	Analyze ways in which individuals with conditions that affect their well-being impact the family and family members financially, socially, physically, and emotionally over the lifespan.
10.4.4	Analyze practices that allow families to maintain economic self-sufficiency.
10.4.5	Illustrate coping or adjustment strategies and stress management practices for the participant, a caregiver, and family members.
10.4.6	Summarize the impact of friends, family, and community relationships for individuals with a variety of conditions that affect their well-being.
10.4.7	Demonstrate ways to provide support that validates the participants' capabilities and right to privacy, dignity, and autonomy.
10.4.8	Identify strategies that help participants make informed choices, access resources and support, follow through on responsibilities, and take appropriate risks.
10.4.9	Demonstrate effective verbal and nonverbal communication skills that support individuals and families with a variety of conditions that could affect their well-being.

Hospitality, Food Production, and Nutrition Services	
11.0	Comprehensive Standard Integrate knowledge, skills, and practices required for careers in food production and services, hospitality, and nutrition services.
11.1	Content Standard Demonstrate food safety and sanitation procedures.
	Competencies
11.1.1	Identify characteristics of major foodborne pathogens, their role in causing illness, foods involved in outbreaks, and methods of prevention.
11.1.2	Employ food service management safety/sanitation program procedures, including CPR and first aid.
11.1.3	Use knowledge of systems for documenting, investigating, reporting, and preventing foodborne illness.
11.1.4	Use the Hazard Analysis Critical Control Point (HACCP) and crisis management principles and procedures during food handling processes to minimize the risks of foodborne illness.
11.1.5	Practice standard personal hygiene and wellness procedures.
11.1.6	Demonstrate proper purchasing, receiving, storage, and handling of both raw and prepared foods.
11.1.7	Demonstrate safe food handling and preparation techniques that prevent cross contamination from potentially hazardous foods and food groups.
11.1.8	Analyze current types of cleaning and sanitizing materials for proper use.
11.1.9	Use the Occupational Safety and Health Administration (OSHA) Right to Know Law and Materials Safety Data Sheets (MSDS) and explain their requirements in safe handling and storage of hazardous materials.
11.1.10	Demonstrate safe and environmentally responsible waste disposal and recycling methods.
11.1.11	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.
11.2	Content Standard Demonstrate industry standards in selecting, using, and maintaining food production and food service equipment.
	Competencies
11.2.1	Operate tools and equipment following safety procedures and OSHA requirements.
11.2.2	Maintain tools and equipment following safety procedures and OSHA requirements.
11.2.3	Demonstrate procedures for cleaning and sanitizing equipment, serving dishes, glassware, and utensils to meet industry standards and OSHA requirements.
11.2.4	Analyze equipment purchases based on long-term business needs, specific regulations, and codes related to foods.
11.2.5	Demonstrate procedures for safe and secure storage of equipment and tools.

Hospitality, Food Production, and Nutrition Services	
11.2.6	Identify a variety of types of equipment for food processing, cooking, holding, storing, and serving.
11.3	Content Standard Evaluate nutrition principles, food plans, preparation techniques and specialized dietary plans.
	Competencies
11.3.1	Analyze nutrient requirements across the life span addressing the diversity of people, culture, and religions.
11.3.2	Analyze nutritional data.
11.3.3	Apply principles of food production to maximize nutrient retention in menus.
11.3.4	Assess the influence of cultural, socioeconomic and psychological factors on food and nutrition and behavior.
11.3.5	Analyze recipe/formula proportions, ingredients, and modifications for food production.
11.3.6	Critique the selection of foods and ingredients to promote a healthy lifestyle.
11.3.7	Plan menus, applying the exchange system to meet various nutrient needs.
11.4	Content Standard Demonstrate menu planning principles and techniques based on standardized recipes to meet customer needs.
	Competencies
11.4.1	Use computer-based menu systems to develop and modify menus.
11.4.2	Apply menu-planning principles to develop and modify menus.
11.4.3	Analyze food, equipment, and supplies needed for menu production.
11.4.4	Develop a variety of menu layouts, themes, and design styles.
11.4.5	Prepare requisitions for food, equipment, and supplies to meet production requirements.
11.4.6	Record performance of menu items to analyze sales and determine menu revisions.
11.4.7	Apply principles of measurement, portion control, conversions, food cost analysis and control, menu terminology, and menu pricing to menu planning.
11.5	Content Standard Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.
	Competencies
11.5.1	Demonstrate professional skills in safe handling of knives, tools, and equipment.
11.5.2	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.
11.5.3	Demonstrate knowledge of portion control and proper scaling and measurement techniques.

Hospitality, Food Production, and Nutrition Services	
11.5.4	Apply the fundamentals of time, temperature, and cooking methods to cooking, cooling, reheating, and holding of a variety of foods.
11.5.5	Prepare various meats, seafood, and poultry using safe handling and professional preparation techniques.
11.5.6	Prepare various stocks, soups, and sauces using safe handling and professional preparation techniques.
11.5.7	Prepare various fruits, vegetables, starches, legumes, dairy products, fats, and oils using safe handling and professional preparation techniques.
11.5.8	Prepare various salads, dressings, marinades, and spices using safe handling and professional preparation techniques.
11.5.9	Prepare sandwiches, canapes and appetizers using safe handling and professional preparation techniques.
11.5.10	Prepare breads, baked goods and desserts using safe handling and professional preparation techniques.
11.5.11	Prepare breakfast meats, eggs, cereals, and batter products using safe handling and professional preparation techniques.
11.5.12	Demonstrate professional plating, garnishing, and food presentation techniques.
11.5.13	Integrate sustainability in food production and services including menu planning; acquisition, preparation, and serving of food; storage; and recycling and waste management.
11.5.14	Demonstrate cooking methods that increase nutritional value, lower calorie and fat content, and utilize herbs and spices to enhance flavor.
11.6	Content Standard Demonstrate implementation of food service management and leadership functions.
	Competencies
11.6.1	Apply principles of purchasing, receiving, and storing in food service operations.
11.6.2	Practice inventory procedures including first in/first out concept, date marking, and specific record-keeping.
11.6.3	Apply accounting procedures in planning and forecasting profit and loss.
11.6.4	Examine the areas of risk management and legal liability within the food service industry.
11.6.5	Apply human resource policies including rules, regulations, laws, hiring, compensation, overtime, discrimination, and harassment.
11.6.6	Apply the procedures involved in staff planning, recruiting, interviewing, selecting, scheduling, performance reviewing, and terminating of employees.
11.6.7	Conduct staff orientation, initial training and education, consistent reinforcement of training principles, and on the job training/retraining.
11.6.8	Implement marketing plans for food service operations.
11.6.9	Design internal/external crisis management and disaster plans and response procedures.
11.6.10	Apply principles of inventory management, labor cost and control techniques, production planning and control, sustainability, and facilities management to

Hospitality, Food Production, and Nutrition Services	
	planning and front and back of the house operations.
11.7	Content Standard Demonstrate the concept of internal and external customer service.
	Competencies
11.7.1	Analyze the role of quality service as a strategic component of exceptional performance.
11.7.2	Demonstrate quality service techniques and procedures that meet industry standards in the food service industry.
11.7.3	Analyze the relationship between employee attitude and skills and customer satisfaction.
11.7.4	Apply procedures for addressing and resolving complaints.
11.7.5	Demonstrate sensitivity to diversity and special needs.
11.8	Content Standard Apply basic concepts of nutrition and nutrition therapy in a variety of settings, considering social, geographical, cultural, and global influences.
	Competencies
11.8.1	Analyze nutritional needs of individuals.
11.8.2	Use nutritional information to support care planning.
11.8.3	Determine when to provide a selective menu approach in nutrition therapy settings.
11.8.4	Construct a modified diet based on nutritional needs and health conditions.
11.8.5	Design instruction on nutrition to promote wellness and disease prevention.
11.9	Content Standard Demonstrate use of science and technology advancements in food product development and marketing.
	Competencies
11.9.1	Analyze various factors that affect food preferences in the marketing of food to a variety of populations.
11.9.2	Analyze data in statistical analysis when making development and marketing decisions.
11.9.3	Prepare food for presentation and assessment.
11.9.4	Maintain test kitchen/ laboratory and related equipment and supplies.
11.9.5	Implement procedures that affect quality product performance and sustainability.
11.9.6	Conduct sensory evaluations of food products.
11.9.7	Conduct testing for safety of food products, utilizing available technology.
11.10	Content Standard Demonstrate food science, dietetics, and nutrition management principles and practices.
	Competencies
11.10.1	Build menus to customer/ client preferences.

Hospitality, Food Production, and Nutrition Services	
11.10.2	Implement food preparation, production, and testing systems.
11.10.3	Apply standards for food quality and sustainability.
11.10.4	Create standardized recipes.
11.10.5	Manage food production to meet needs and preferences of diverse customer populations.
11.10.6	Analyze new products utilizing most current guidelines and innovations in technology.
11.10.7	Implement procedures that provide cost effective products.
11.10.8	Establish par levels for the purchase of supplies based on an organization's needs.
11.10.9	Utilize Food Code Points of time, temperature, date markings, cross contamination, hand washing, and personal hygiene as criteria for safe food preparation.
11.11	Content Standard Demonstrate principles of food biology and chemistry.
	Competencies
11.11.1	Explain the properties of elements, compounds, and mixtures in foods and food products.
11.11.2	Analyze the effects of thermodynamics on chemical reactions in foods and food products.
11.11.3	Explain the process of ionization in the formation of acids and bases and effect on food and food products.
11.11.4	Explain the impact of molecular structure of simple and complex carbohydrates on digestion, nutrition, and food preparation procedures.
11.11.5	Relate the composition of lipids and proteins to their functions in foods and their impact on food preparation and nutrition.
11.11.6	Explain the value of molds and enzymes in food products.
11.11.7	Analyze the impact of food presentation methods and techniques on nutrient value, safety and sanitation, and consumer appeal of food and products.
11.12	Content Standard Demonstrate procedures applied to safety, security, and environmental issues.
	Competencies
11.12.1	Explain the importance of safety, security, and environmental issues related to the hospitality, tourism, and recreation industries.
11.12.2	Demonstrate procedures for assuring guest or customer safety.
11.12.3	Evaluate evacuation plans and emergency procedures.
11.12.4	Demonstrate management and conservation of resources for energy efficiency and protection of the environment.
11.12.5	Design a system for documenting, investigating, and taking action on safety, security, and environmental issues.
11.13	Content Standard Apply concepts of quality service to ensure customer satisfaction.
	Competencies

Hospitality, Food Production, and Nutrition Services	
11.13.1	Apply industry standards for service that meets cultural and geographic expectations of guests or customers.
11.13.2	Analyze how employee dispositions can impact customer satisfaction.
11.13.3	Apply a system to evaluate and resolve employee, employer, guest, or customer complaints.
11.13.3	Analyze effects of customer relations on success of the hospitality, tourism, and or recreation industry.
11.13.4	Demonstrate effective cultural awareness and customer relations to meet the hospitality, tourism, and recreation needs of special populations.
11.14	Content Standard Demonstrate practices and skills involved in hospitality and lodging occupations.
	Competencies
11.14.1	Demonstrate front desk, office, and customer service skills.
11.14.2	Demonstrate accounting practices and financial transactions.
11.14.3	Manage convention, meeting, and banquet support functions.
11.14.4	Apply basic food preparation and service skills in catering operations.
11.14.5	Manage use, care, storage, maintenance, and safe operations of equipment, tools, and supplies.
11.14.6	Apply facility management, maintenance, and service skills to hospitality and lodging operations.
11.14.7	Apply time and work management skills to facility service tasks.
11.14.8	Analyze sales and marketing functions in hospitality and lodging operations.
11.15	Content Standard Demonstrate practices and skills for travel related services.
	Competencies
11.15.1	Investigate geography, climate, sites, time zones, and political and global influences of various regions and countries.
11.15.2	Investigate hospitality, lodging, tourism, and recreation customs of various regions and countries.
11.15.3	Apply knowledge of food, beverage, and etiquette of various regions and countries to decisions about hospitality, lodging, tourism, and recreation.
11.15.4	Research regulations and cultural expectations to determine information needed for diverse clientele for domestic and international travel.
11.15.5	Create travel documents and itineraries, utilizing current technology.
11.15.6	Analyze travel arrangements using computerized systems.
11.16	Content Standard Demonstrate management of recreation, leisure, and other programs and events.
	Competencies
11.16.1	Coordinate client inquiries and requests.
11.16.2	Design themes, timelines, budgets, agendas, and itineraries for specific programs and

Hospitality, Food Production, and Nutrition Services	
	events.
11.16.3	Organize resources and information about locations, facilities, suppliers, and vendors for specific services.
11.16.4	Prepare event materials for distribution.
11.16.5	Demonstrate skills related to promoting and publicizing events.
11.16.6	Manage programs and events for specific age groups or diverse populations.
11.16.7	Promote wellness initiatives through recreation and leisure programs and events.
11.16.8	Evaluate overall effectiveness of specific events.
11.16.9	Describe tourism related organizations and agencies and their impact on hospitality, lodging, travel, and recreation operations.

Housing, Fashion, and Design	
12.0	Comprehensive Standard Integrate knowledge, skills, and practices required for careers in housing and interior design, fashion and apparel design, and textiles.
12.1	Content Standard Analyze the value of interior, fashion, and apparel design to individuals, families, and society including the financial benefits and the impact of housing, interior design, and apparel careers on individual/family, local, state, national, and global economies.
	Competencies
12.1.1	Analyze the effects of textiles, fashion, and apparel industries on local, state, national, and global economies.
12.1.2	Apply consumer skills to decisions about housing, utilities, and furnishings.
12.2	Content Standard Evaluate housing and design concepts and theories, including sustainability and universal design, in relation to available resources and options.
	Competencies
12.2.1	Evaluate the use of elements and principles of design in housing and commercial and residential interiors.
12.2.2	Analyze the psychological impact that the principles and elements of design have on the individual.
12.2.3	Analyze the effects that the principles and elements of design have on aesthetics and function.
12.2.4	Apply principles of human behavior, ergonomics, and anthropometrics to the design of housing, interiors, and furnishings.
12.3	Content Standard Analyze the effects of textiles, fashion, and apparel industries on local, state, national, and global economies.
	Competencies
12.3.1	Apply appropriate terminology for identifying, comparing, and analyzing the most common generic textile fibers and fabrics.
12.3.2	Evaluate performance characteristics of textile fiber and fabrics.
12.3.3	Analyze textile legislation, standards, and labeling in the global economy.
12.3.4	Analyze characteristics of textile components in the design, construction, care, use, maintenance, and disposal or recycling of products.
12.3.5	Demonstrate appropriate procedures for care and disposal or recycling of textile products, considering diverse needs locally and globally.
12.3.6	Evaluate fibers and fabrics for sustainability factors.
12.3.7	Evaluate quality of textiles, fashion, and apparel construction and fit.
12.4	Content Standard Apply residential and commercial interior design knowledge, skills and processes to meet specific design needs.
	Competencies
12.4.1	Analyze product information, including but not limited to floor coverings, wall coverings, textiles, window treatments, furniture, lighting fixtures, kitchen and bath fixtures and

Housing, Fashion, and Design	
	equipment.
12.4.2	Evaluate manufacturers, products, and materials considering building codes and regulations, environmental protection, care and maintenance, and safety issues.
12.4.3	Demonstrate measuring, estimating, ordering, purchasing, pricing, and repurposing skills.
12.4.4	Appraise various interior furnishings, finishes, fixtures, appliances, and equipment to provide cost and quality choices for clients.
12.4.5	Examine the impact of housing, interiors, and furnishings on the health, safety, and welfare of the public.
12.4.6	Demonstrate design processes such as determining the scope of the project, programming, research, concept development, schematic design, design drawing, and design development and presentation.
12.5	Content Standard Demonstrate textiles, fashion, and apparel design skills.
	Competencies
12.5.1	Explain the ways in which fiber, fabric, texture, pattern, and finish can affect visual appearance.
12.5.2	Apply basic and complex color schemes and color theory to develop and enhance visual effects.
12.5.3	Utilize elements and principles of design in designing, constructing, and/or altering textiles, fashion, and apparel.
12.5.4	Demonstrate design concepts using fiber, fabric or digital means, employing draping and/or flat pattern making techniques.
12.5.5	Generate design that demonstrates consideration for ecological, environmental, ethnic, sociological, psychological, technical, and economic trends and issues.
12.5.6	Apply elements and principles of design to assist consumers and businesses in making decisions.
12.5.7	Demonstrate ability to use technology for fashion, apparel, and textile design.
12.5.8	Evaluate the impact of history of design and designers, arts and culture, trend setters, and global influences on textiles, fashion, and apparel.
12.6	Content Standard Demonstrate skills needed to produce, alter, or repair textiles, fashion, and apparel.
	Competencies
12.6.1	Demonstrate professional skills in using traditional and technologically innovative equipment, tools, and supplies in textiles, fashion, and apparel construction, alteration, repair, and recycling.
12.6.2	Explain production processes for creating fibers, yarns, woven and knit fabrics, and non-woven textile products.
12.6.3	Use appropriate industry products and materials for cleaning, pressing, and finishing textiles, fashion, and apparel.
12.6.4	Analyze current technology, trends, and innovations that facilitate design and production of textiles, fashion, and apparel.
12.6.5	Demonstrate basic skills for production, alteration, repair and recycling of textiles, fashion, and apparel.
12.7	Content Standard

Housing, Fashion, and Design	
	Apply consumer skills to providing and maintaining clothing.
	Competencies
12.7.1	Demonstrate laundering processes aligned with industry standards and regulations.
12.7.2	Summarize the functions of machines and equipment used in laundering operations.
12.7.3	Demonstrate standard laundry procedures.
12.7.4	Apply procedures for the selection of textiles, chemicals, and equipment in the laundering process.
12.7.5	Apply industry regulations to maintaining quality in laundry/linen systems.
12.8	Content Standard Evaluate client's needs, goals, and resources in creating design plans for housing and residential and commercial interiors.
	Competencies
12.8.1	Assess financial resources needed to improve interior space.
12.8.2	Apply consumer skills to decisions about housing, utilities, and furnishings.
12.8.3	Assess client's community, family, and financial resources needed to achieve housing and interior design goals.
12.8.4	Assess a variety of available resources for housing and interior design, such as evidence-based design that accounts for human factors and issues of human behavior.
12.8.5	Critique design plans to address client's needs, goals and resources.
12.8.6	Justify design solutions relative to client needs, including diversity and cultural needs, and the design process.
12.8.7	
12.9	Content Standard Apply design knowledge, skills, processes, and theories and oral, written, and visual presentation skills to communicate design ideas.
	Competencies
12.9.1	Select appropriate studio tools.
12.9.2	Prepare sketches, elevations, perspectives, and renderings using appropriate media.
12.9.3	Prepare visual presentations including legends, keys, and schedules.
12.9.4	Utilize a variety of presentation media including drawings, photography, video, computer, and software for client presentations.
12.9.5	Utilize applicable building codes and universal design regulations and guidelines in space planning.
12.9.6	Create floor plans using architectural drafting skills and computer aided design software.
12.10	Content Standard Evaluate elements of textiles, fashion, and apparel merchandising.
	Competencies
12.10.1	Apply marketing strategies for textiles, fashion, and apparel in the global marketplace.
12.10.2	Analyze the cost of constructing, manufacturing, distributing, altering, repairing or recycling textiles, fashion, and apparel.
12.10.3	Analyze ethical considerations for merchandising textiles, fashion, and apparel.
12.10.4	Analyze external factors that influence merchandising.
12.10.5	Critique a variety of methods for promoting textiles, fashion and apparel to diverse populations.

Housing, Fashion, and Design	
12.10.6	Apply research methods, including forecasting techniques, for marketing textiles, fashion, and apparel.
12.11	Content Standard Analyze professional practices and procedures for business profitability and career success, and the role of ethics in the housing, interiors and furnishings industries.
	Competencies
12.11.1	Examine legislation, regulations, and public policy that affect residential and commercial interior design as well as the housing and furnishings industries.
12.11.2	Analyze personal and employer responsibilities and liabilities regarding industry related safety, security, and environmental factors.
12.11.3	Describe security and inventory control strategies, laws and regulations, and worksite policies and procedures that affect loss prevention and profit.
12.11.4	Demonstrate procedures for reporting and handling accidents, safety, and security incidents.
12.11.5	Apply procedures for maintaining inventory control and loss prevention, including cash and credit transactions.
12.11.6	Analyze operational costs such as mark ups, mark downs, raw materials, cash flow, and other factors affecting profit.
12.11.7	Demonstrate knowledge of the arts, of various resources, and of cultural impact upon design industries.
12.11.8	Demonstrate knowledge of multi-disciplinary collaboration and consensus building skills needed in practice.
12.12	Content Standard Develop a global view to weigh design decisions with the parameters of sustainability and socioeconomic and cultural contexts within the housing, interior design, fashion, and furnishing industries.
12.12.1	Competencies
12.12.2	Demonstrate knowledge and skills to incorporate recycle and redesign principles.
12.12.3	Content Standard Evaluate the components of customer service.
12.12.4	Competencies
12.12.5	Analyze factors that contribute to quality customer relations.
12.12.6	Analyze the influences of cultural expectations as a factor in customer relations.
12.12.7	Demonstrate the skills necessary for quality customer service.
12.12.8	Create solutions to address customer concerns.
12.13	Content Standard Demonstrate planning, organizing, and maintaining an efficient operation of residential or commercial facilities.
	Competencies
12.13.1	Apply environmental services standards and procedures in residential and commercial settings.
12.13.2	Operate cleaning equipment and tools.
12.13.3	Manage use of supplies.

Housing, Fashion, and Design	
12.13.4	Maintain building interior surfaces, wall coverings, fabrics, furnishings, and floor surfaces.
12.13.5	Perform facilities maintenance based on established standards and procedures.
12.13.6	Analyze energy efficient methods and practices in a variety of geographic and cultural settings.
12.14	Content Standard Demonstrate facilities management functions.
	Competencies
12.14.1	Demonstrate quality customer service which exceeds customer expectations in diverse settings.
12.14.2	Demonstrate the elements involved in staff planning, recruiting, interviewing, selecting, hiring, and terminating of employees.
12.14.3	Design staff schedules that meet industry needs and consider individual diversity.
12.14.4	Conduct orientation, regular training and education, and on the job training/retraining, considering employee diversity.
12.14.5	Demonstrate techniques and strategies to evaluate employee effectiveness.
12.14.6	Apply principles of purchasing and receiving in facility management operations.
12.14.7	Implement procedures to control inventory.
12.14.8	Apply accounting principles in planning, forecasting, and recording profit and loss.
12.14.9	Develop a marketing plan for a business or department.

Education and Training	
13.0	Comprehensive Standard Integrate knowledge, skills, and practices required for careers in early childhood, education, and services.
13.1	Content Standard Analyze developmentally appropriate and culturally responsive practices to plan for early childhood, education, and services.
13.1.1	Competencies
13.1.2	Analyze child development theories and their implications for educational and childcare practices.
13.1.3	Explore assessment tools and methods to observe and interpret children's growth and development and apply to assess growth and development across the lifespan.
13.1.4	Analyze cultural and environmental influences when assessing development of children, youth and adults.
13.1.5	Address specific developmental needs of children, youth and adults based on assessment of their abilities.
13.1.6	Analyze strategies that promote growth and development of children, youth and adults.
13.2	Content Standard Demonstrate integration of curriculum and instruction to meet developmental needs and interests of children, youth and adults, considering gender, ethnicity, geographical, cultural, and global influences.
	Competencies
13.2.1	Analyze a variety of curriculum and instructional models.
13.2.2	Implement learning activities in all curriculum areas that meet the developmental needs of learners.
13.2.3	Implement an integrated curriculum that incorporates a learner's language, learning styles, early experiences, and cultural values.
13.2.4	Demonstrate a variety of teaching methods to meet individual needs of learners.
13.2.5	Arrange the classroom environment to provide for learners' exploration, discovery, development, and reflection through multiple methods including learning centers.
13.2.6	Establish effective activities, routines, and transitions for various age groups.
13.3	Content Standard Demonstrate a safe and healthy learning environment for children, youth and adults.
	Competencies
13.3.1	Manage physical space to maintain a learning environment that is safe and healthy and encourages physical activity.
13.3.2	Apply safe and healthy practices that comply with local, state, and federal regulations to assure learners' safety.
13.3.3	Implement strategies to teach health, safety, and sanitation habits.
13.3.4	Plan safe and healthy meals and snacks that meet USDA standards.
13.3.5	Document symptoms of abuse and neglect and use appropriate procedures to report suspected abuse or neglect to the designated authorities.
13.3.6	Implement basic health practices and prevention procedures for workers and learners regarding illness, communicable diseases, accidents and trauma.

Education and Training	
13.3.7	Demonstrate security and emergency procedures.
13.4	Content Standard Demonstrate skills for building and maintaining positive collaborative relationships with children, youth and adults in their family and community environments, considering gender, ethnicity, geographical, cultural, and global influences.
13.4.1	Competencies
13.4.2	Apply developmentally appropriate and culturally responsive guidelines for behavior.
13.4.3	Demonstrate problem-solving and decision-making skills when working with children, youth and adults.
13.4.4	Demonstrate interpersonal skills that promote positive and productive relationships with learners.
13.4.5	Implement strategies for constructive and supportive interactions between children, youth and adults and their families and communities.
13.4.6	Analyze learners' developmental progress and summarize developmental issues and concerns.
13.5	Content Standard Demonstrate professional practices and standards related to working with children, youth and adults, including diverse populations.
	Competencies
13.5.1	Explore opportunities for continuing training and education.
13.5.2	Apply professional ethical standards as accepted by the recognized professional organizations.
13.5.3	Implement federal, state, and local standards, policies, regulations, and laws that affect programs for children, youth and adults and their families.
13.5.4	Demonstrate enthusiasm, initiative, and commitment to program goals and improvements.
13.5.5	Examine entrepreneurial aptitude, management skills, and financial resources needed for planning businesses in early childhood, education, and services.
13.5.6	Identify ways educators can advocate to influence policies, agencies, and institutions for the benefit of children, youth and adults and their families.

For additional information: <http://www.nasafacs.org/national-standards-and-competencies.html>



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