Tennessee CTE

Human Services: Nutrition Across the Lifespan

Safety and Sanitation	1	Compile and critique safety and sanitation procedures related to handling, preparing, storing, and serving food from industry-approved technical manuals and government published fact sheets. Identify and review general common laboratory safety procedures including but not limited to prevention and control procedures and personal hygiene expectations. Incorporate safety procedures and complete safety test with 100 percent accuracy. NAL 1
Nutrition and Health Overview	2	Synthesize research published by government agencies or academic journals on the contribution of nutrition and exercise to achieving optimum physical, mental, and social wellbeing at all stages of development across the life span. Create an informative essay illustrating findings on the nutritional needs of individuals and families in relation to age, gender, activity level, and health status. NAL 2
Anatomy and Physiology of Nutrition	3	Create a model or graphic illustration that identifies the major anatomic structures of the gastrointestinal (GI) system. Explain the function of each structure in the process of digestion, absorption, transport, and use of nutrients in the body. Research and develop a logical explanation of how the body deals with deficiencies and excess nutrients, citing specific textual evidence on the impact on an individual's health. NAL 3
	4	Identify, analyze, and visually represent the macro- and micro-nutrients required in the human diet. Include the common food sources of those nutrients, their chemical properties, and function in the body, as well as the influence upon biological systems in reference to maintenance and growth. a. Macro nutrients include: carbohydrates, lipids, and proteins b. Micro nutrients include: minerals, vitamins, and water NAL 4
Nutritional Requirements Across the Lifespan	5	Accurately read, interpret, and communicate understanding of guidance from the U.S. Food and Drug Administration (FDA), and other regulators, such as nutrition labels and daily value Page 3 recommendations using accurate symbols, key terms, and other domain-specific words and phrases. NAL 5
	6	Research and prepare informational artifacts for consumers that present the specific nutritional guidelines for each stage of the life span using scientifically accurate terms and symbols. Life span phases should include: a. Birth to 1 year b. Toddlerhood c. Preschool d. School age e. Puberty and adolescence f. Pregnant

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	and lactating females g. Early adulthood h. Middle adulthood i. Late adulthood NAL 6
	7 Analyze a variety of meal plans that meet nutritional requirements (caloric and RDA) as recommended by the U.S. Food and Drug Administration (FDA). Create a meal plan that addresses the nutritional needs of a specific individual based on their age, gender, activity level and other factors, and justify choices using evidence. Select, prepare, and serve food(s) from the meal plan following recipes precisely, including defining and utilizing specific culinary and measurement terms as needed. Practice proper serving and etiquette principles during appropriate situations. NAL 7
	8 Keep a food journal and compare an individual's diet to nutritional recommendations for their respective age, gender, activity level, and health status. Write a summary of the findings and include conclusions drawn on recommendations of how the diet could be modified to make up for deficiencies and excesses. NAL 8
	9 Compare and contrast alternative diet and lifestyle approaches to recommended dietary requirements for individuals of the same age and gender. Explain the reasons for the dietary differences in an informational artifact summarizing information to describe the physiological differences of the lifestyles, including, but not limited to: a. Differences in physical activity (i.e. athletic training) b. Differences in religious or ethical values (i.e. vegetarian, vegan, kosher) c. Differences based on disease or physiological need (i.e. gluten free, elimination or rotation diets) NAL 9
Food Preferences and Choices	10 Research and summarize in an explanatory text the factors that contribute to food choices and preferences including cultural, geographical, economic, psychological, and societal influences. Describe the most likely results of preferences and external factors on nutritional intake. a. Example of geographical external factor on nutritional intake: Individual living in an area without adequate sunlight exposure may need to eat a diet rich in Vitamin D to make up for vitamin deficiency. Page 4 b. Example of geographical preference on food choice: Individual living in a colder climate might prefer methods of cooking that keep heat in the living area, while an individual living in a warmer climate might prefer preparation methods that reduce heat NAL 10
	11 Form a hypothesis and design and conduct an experiment to identify the role of the senses and/or food preparation techniques in food choices. Summarize experiment results into an argument making a claim about the impact of variables on food choice. Compare results to findings in news media and note when findings support or contradict previous explanations or accounts. NAL 11
	12 Research nutritional claims of various diets and use appropriate/reliable sources of nutritional information to determine the validity of those claims. Use nutritional databases, food label information, and other sources to analyze the nutrient composition of one day of foods on each diet investigated. Create a graphic illustration comparing actual nutrition provided by each diet to the

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		recommended nutrition requirements for an individual with specific characteristics, noting similarities and differences in two diets. NAL 12
Nutritional Issues and Controversies	13	Synthesize evidence from multiple sources to analyze topics in nutrition, including but not limited to: a. The use of genetically modified foods b. Artificial sweeteners versus natural sugar c. Organic and local food movements d. Benefits and risk of different forms of dieting e. Use of probiotics Evaluate the validity and credibility of source materials and deduce the principle arguments for each, carefully weighing the author's evidence against potential biases. NAL 13
	14	Describe the correlation of energy balance, lifestyle, diet, age, gender, and metabolism to the obesity epidemic in America. Compare and contrast how different diets, habits, heredity, and physical characteristics contribute to obesity. Research various initiatives that have sought to fight obesity and improve nutrition across the nation. Summarize the intended result of an initiative in an explanatory essay, informational artifact, or presentation. NAL 14
Food Preparation and Integrity	15	Investigate the food supply from point of origin to the point of sale – analyzing handling, transportation, storage, processing, and packaging – to identify where food safety and nutritional value could be compromised. Compare this to the food handling, transportation, storage, processing, and preparation from point of sale to the table by creating a graphic illustration indicating where food is most susceptible to contamination, food-borne illness, spoilage, and nutrient loss. NAL 15
	16	Demonstrate food selection and preparation methods that maximize the nutritional value of foods while minimizing dietary health risks. Plan and conduct nutrition laboratory experiments to determine the physical and chemical changes of food structure through Page 5 chemical reactions. Communicate results of experiences, including comparing and contrasting results to findings in a report. Demonstrate relationships among concepts including, but not limited to: a. Heat b. Acidity level c. Fermentation d. Millard reactions e. Chemically processed foods f. Preparation techniques and product yield NAL 16