

**Jefferson County High School
Course Syllabus**

Nutrition Across The Lifespan

Human Studies, Nutrition and Dietetics Pathway

Course Description:

Nutrition Across the Lifespan is for students interested in learning more about becoming a dietitian, nutritionist, counselor, or pursuing a variety of scientific, health, or culinary arts professions. Upon completion of this course, proficient students will understand human anatomy and physiological systems, nutrition requirements, as well as social, cultural, and other impacts on food preparation and integrity.

Program of Study Application: This course is an applied knowledge course in the Dietetics & Nutrition program of study. For more information on the benefits and requirements of implementing this program in full, please visit the Human Services website at <https://tn.gov/education/article/cte-cluster-human-services>.

Grade Term: Semester Class

Grading Scale

<u>Range</u>	<u>Regular</u>
93-100 A	4.0
85-92 B	3.0
75-84 C	2.0
70-74 D	1.0

Term Dates

- a. 1st 9 Weeks August 5, 2016 – October 7, 2016
- b. 2nd 9 Weeks October 8, 2016 – December 16, 2016
- c. 3rd 9 Weeks January 5, 2017 – March 15, 2017
- d. 4th 9 Weeks March 16, 2017 – May 25, 2017

Textbook: Food For Today (Glenco) Copyright 2010

Major Assignments *This course is a hands-on, lab environment type atmosphere. The student will be asked to create and produce a variety of dishes and will be asked to taste these foods. Students will be required to conduct themselves in a professional manner and they will be required to score 100% on a safety and sanitation exam.*

There is a course fee of \$10.00 for every student. This money goes to help offset the cost of food and equipment. The fee is payable in the bookkeeping office or to Mrs. Martin in class. Fee waivers are accepted, but the student must notify the teacher of this status. Laboratory experiences will not begin until all course fees are paid.

Students should come to class with a three ring binder, pencil, paper, willingness to work, and an appetite!

Procedures for Parental Access to Instructional Materials

Aspen Parent Portal: Please use Aspen to check grades. I update the current grades often and this is a great way to look for missing assignments. The student is responsible for requesting missed assignments.

Teacher email: hmartin@jcboe.net

Parent Teacher Conferences

There are two designated conference dates during the school year. Parents who would like to request additional meetings may make appointments for conferences with the teachers (during 4th period planning), counselors, or a principal by telephoning the school office.

Field Trips

Any schedule fieldtrip will have a definite educational purpose and will reflect careful planning. Signed permission forms will be obtained when an off campus trip is planned.

Planned Field Trip: Sharing Christmas In Jefferson County (Community Service)

Pacing Guide

1st 9 weeks:

Introduction to Safety and Sanitation (2 weeks)
Micro/Macro Nutrients and Nutrition Overview (2 weeks)
Diet Analysis, Eating Disorders, and Obesity (2 weeks)
Nutrition Labels and Nutritional Information, My Plate (2 weeks)
Menu Planning, Proper Service, and Etiquette (1 week)
Benchmark Testing

2nd 9 weeks:

Digestive System (GI) (1 week)
Meal planning and nutritional needs through the lifespan (1 weeks)
Lifestyle and Nutritional Needs (1 week)
Food Preparation Techniques: (4 weeks)
 Heat
 Acidity level
 Fermentation
 Millard reactions
 Chemically processed foods

Standards & Objectives

1. Safety and Sanitation

- a. I can compile and critique safety and sanitation procedures related to handling, preparing, storing, and serving food.
- b. I can identify and review general common laboratory safety procedures, including prevention and control procedures and personal hygiene expectations.
- c. I can incorporate safety procedures and complete safety test with 100% accuracy.

2. Nutrition and Health Overview

- a. I can synthesize research on the contribution of nutrition and exercise to achieving optimum physical, mental, and social well-being at all stages of development across the lifespan.
- b. I can create an informative essay illustrating findings on the nutritional needs of individuals and families in relation to age, gender, activity level, and health status.

3. Anatomy and Physiology of Nutrition

- a. I can create a model or graphic illustration that identifies the major anatomic structures of the gastrointestinal (GI) system.
- b. I can explain the function of each structure in the process of digestion, absorption, transport, and use of nutrients in the body.
- c. I can research and develop a logical explanation of how the body deals with deficiencies and surplus nutrients, citing specific textual evidence on the impact on an individual's health.
- d. I can identify, analyze, and visually represent the macro- and micro-nutrients required in the human diet.
- e. I can 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.
- f. I can identify macro nutrients: carbohydrates, lipids, and proteins
- g. I can identify micro nutrients: minerals, vitamins, and water
- h. I can accurately read, interpret, and communicate understanding of guidance from the U.S. Food and Drug Administration (FDA).
- i. I can use nutrition labels and daily value recommendations using accurate symbols, key terms, and other domain-specific words and phrases to demonstrate understanding of nutritional information.
- j. I can 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 for:
 - i. Birth to 1 year
 - ii. Toddlerhood
 - iii. Preschool
 - iv. School age
 - v. Puberty and adolescence
 - vi. Pregnant and lactating females
 - vii. Early adulthood
 - viii. Middle adulthood
 - ix. Late adulthood

- k. I can analyze a variety of meal plans that meet nutritional requirements (caloric and RDA) as recommended by the U.S. Food and Drug Administration (FDA).
- l. I can 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.
- m. I can select, prepare, and serve food(s) from the meal plan following recipes precisely, including defining and utilizing specific culinary and measurement terms as needed.
- n. I can practice proper serving and etiquette principles during appropriate situations.
- o. I can keep a food journal and compare an individual's diet to nutritional recommendations for their respective age, gender, activity level, and health status.
- p. I can 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 surpluses.
- q. I can compare and contrast alternative diet and lifestyle approaches to recommended dietary requirements for individuals of the same age and gender.
- r. I can 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:
 - i. Differences in physical activity (i.e. athletic training)
 - ii. Differences in religious or ethical values (i.e. vegetarian, vegan, kosher)
 - iii. Differences based on disease or physiological need (i.e. gluten free, elimination or rotation diets)

4. Food Preferences and Choices

- a. I can research and summarize in an explanatory text the factors that contribute to food choices and preferences including cultural, geographical, economic, psychological, and societal influences.
- b. I can describe the most likely results of preferences and external factors on nutritional intake.
 - iv. 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.
 - v. 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.
- c. I can form a hypothesis and design and conduct an experiment to identify the role of the senses and/or food preparation techniques in food choices.
- d. I can summarize experiment results into an argument making a claim about the impact of variables on food choice.
- e. I can compare results to findings in news media and note when findings support or contradict previous explanations or accounts.
- f. I can research nutritional claims of various diets and use appropriate/reliable sources of nutritional information to determine the validity of those claims.
- g. I can use nutritional databases, food label information, and other sources to analyze the nutrient composition of one day of foods on each diet investigated.

- h. I can create a graphic illustration comparing actual nutrition provided by each diet to the recommended nutrition requirements for an individual with specific characteristics, noting similarities and differences in two diets.

5. Nutritional Issues and Controversies

- a. I can research nutritional claims of various diets and use appropriate/reliable sources of nutritional information to determine the validity of those claims.
- b. I can use nutritional databases, food label information, and other sources to analyze the nutrient composition of one day of foods on each diet investigated.
- c. I can create a graphic illustration comparing actual nutrition provided by each diet to the recommended nutrition requirements for an individual with specific characteristics, noting similarities and differences in two diets.
- d. I can describe the correlation of energy balance, lifestyle, diet, age, gender, and metabolism to the obesity epidemic in America.
- e. I can compare and contrast how different diets, habits, heredity, and physical characteristics contribute to obesity.
- f. I can research various initiatives that have sought to fight obesity and improve nutrition across the nation.
- g. I can summarize the intended result of an initiative in an explanatory essay, informational artifact, or presentation.

6. Food Preparation and Integrity

- a. I can 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.
- b. I can 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.
- c. I can demonstrate food selection and preparation methods that maximize the nutritional value of foods while minimizing dietary health risks.
- d. I can plan and conduct nutrition laboratory experiments to determine the physical and chemical changes of food structure through 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
 - 1. Heat
 - 2. Acidity level
 - 3. Fermentation
 - 4. Millard reactions
 - 5. Chemically processed foods
 - 6. Preparation techniques and product yield