FN A170: NUTRITION

Item	Value
Curriculum Committee Approval Date	10/20/2021
Top Code	130620 - Dietetic Services and Management
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S)
Associate Arts Local General Education (GE)	• Area 7 Life Skills, Lifelong Learning, and Self-Development 7A Theory/ Non-activity (OE1)
California State University General Education Breadth (CSU GE-Breadth)	• CSU E1 Lifelong Understanding (E1)

Course Description

Scientific concepts of nutrition relating to the functioning of nutrients in the basic life processes. Emphasis on individual needs, food sources of nutrients, current nutrition issues, and diet analysis. Recommended for nutrition majors and transfer students. Transfer Credit: CSU; UC. C-ID: NUTR 110.**C-ID:** NUTR 110.

Course Level Student Learning Outcome(s)

1. Evaluate their personal diet using a computerized diet analysis program and compare their intake to recommended dietary guidelines. Make recommendations for improvement of their diet for health and wellness.
2. Evaluate nutrition information for accuracy and reliability.

Course Objectives

- 1. Describe influences on the formation of food habits, incentives for change, and factors inhibiting change. (SCANS Thinking)
- 2. Identify scientific terms and chemical names of nutrients relating to the introductory study of nutrition. (SCANS Information)
- 3. Describe the various tools used to evaluate dietary patterns and apply these tools to the assessment of diets. (DRI, MyPyramid, Dietary Goals and Guidelines, Exchange List, Nutrition information on labels) (SCANS Information and Thinking)
- 4. Identify major nutrients their food sources and their role in health. (SCANS Information)
- 5. Identify concepts concerning calorie intake and expenditures in relation to energy needs and weight management. (SCANS Information and Thinking)
- 6. Demonstrate knowledge of nutrient digestion, absorption and metabolism. (SCANS Information and Thinking)
- 7. Compare and contrast information in nutrition ads and articles to the text and lecture. (SCANS Thinking)
- 8. Describe valid sources of nutrition information. (SCANS Information)
- 9. Identify the carbohydrate classification and sources of foods, as well as to assess the value of common carbohydrate foods and their role in the diet. (SCANS Information and Thinking)
- 10. Describe the functions of fats in the diet, comparing the value of fats from animal and vegetable sources based on current scientific research. (SCANS Information and Thinking)
- 11. Describe the characteristics and functions of protein in the body, along with sources relating to quality and quantity and current practices in protein consumption, including efforts to meet existing and contemplated worldwide shortages. (SCANS Information, Systems and Thinking)
- 12. Identify the functions, dietary requirements, results of deficiencies and overages, and common food sources of fat and water soluble vitamins, along with guides for obtaining maximum nutritional value in the selection, preparation, and storage of foods. (SCANS Information and Thinking)
- 13. Identify functions, daily recommendations, results of deficiencies and common food sources of major and trace minerals, along with guides for retaining maximum value in the selection and preparation of foods. (SCANS Information and Thinking)
- 14. List the functions of water in the diet and significant sources. (SCANS Information)
- 15. Identify the relationship of nutrition to various health problems in United States: obesity, dental health, osteoporosis, heart disease, cancer, diabetes, etc. (SCANS Information and Thinking)
- 16. Compare and contrast nutritional needs throughout the life cycle. (SCANS Thinking)
- 17. Describe the role that government and social agencies perform in providing for the nutritional needs at specified times during the life cycle. (SCANS Information and Systems)
- 18. Describe the effect of nutrient intake on physical performance. (SCANS Information, Thinking and Personal Qualities)
- 19. Compare the nutritional values of traditional foods and eating patterns with those of other cultures. (SCANS Information and Thinking)
- 20. Describe the risks and benefits of the following: microbes, pesticides, additives, and biotechnology. (SCANS Information)
- 21. List major personal, nationwide, and worldwide concerns and trends which relate to nutritional well being. (SCANS Information and Thinking)
- 22. Compare and contrast their personal diet with accepted recommendations using computerized diet analysis software.

Lecture Content

Introduction to the course, Food Choices and Human Health, Nutrients in Foods, Cultural and Social Meanings of Food, Food Composition Tables, Nutrition Resources Nutrition Tools, Recommended Dietary Allowances, Dietary Guidelines and Goals, MyPyramid, Exchange Lists, Nutrition Labeling Tools continued, Computer Project The Body Systems, Ingestion, Digestion, Absorption, Metabolism Carbohydrates, Sugars, Starches, Glycogen, Fibers, Digestion and absorption of Carbohydrates, Carbohydrates in Food Groups, Diabetes and Hypoglycemia, Lactose Intolerance Lipids, Triglycerides, Fatty Acids, Glycerol, Fats in Food Groups, Functions of lipids in the body, Functions of fat in food, Cardiovascular Disease and Prevention Proteins, Amino Acids, Protein

digestion and absorption, Functions of proteins in the body Vitamins, Fat soluble and water soluble, Deficiencies and toxicity, Role of supplements in the body Minerals, roles in the body and food sources, Macro minerals, Micro minerals, Electrolytes Water Balance, Sources, Importance in digestion and metabolism, Regulation of body fluids, Water and athletic performance Energy balance and weight control, Determining energy needs, Healthy weight and body composition, Medical problems related to weight, Weight management and dieting Nutrition fitness and performance, Carbohydrate and fat and athletic performance, Fluids and temperature regulation, Ergogenic aids Nutrition and the Life Cycle, Prenatal nutrition, Infant feeding, Children and teens, Elderly U.S. and Global Issues including, Food Technology and Food Safety

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)

Instructional Techniques

Instructional methodologies will include lecture and discussion as well as videos, video disks, slide presentations, and individual worksheets. Quizzes and cooperative learning activities will be used to promote learning and interaction of students.

Reading Assignments

Assigned textbook chapters Professional journals current articles or websites Students will spend 2-3 hours per week on reading assignments.

Writing Assignments

1. Analysis of dietary intake. Complete assessment and make recommendations for improvement using critical thinking skills. This is an on-going project throughout the semester related to specific topics covered each week in class. 2. Evaluate related periodicals, given an evaluation tool. The objective is to relate facts learned in class to professional and popular periodicals. 3. Complete worksheets on using nutrition tools to evaluate diets, menus, and meals. The objective is to reinforce class materials and apply information learned in class to their own diet. Students will spend 2-3 hours per week on writing assignments.

Out-of-class Assignments

1. Input of Personal Diet and Activity Patterns using nutrition software. This is a multiple-part assignment that continues through the entire semester, culminating in a goal setting assignment. 2. Analysis of dietary intake. Complete assessment and make recommendations for improvement using critical thinking skills. This is an on-going project throughout the semester related to specific topics covered each week in class. 3. Analysis of Nutrition Facts Labels via a visit to the grocery store. 4. Case studies of nutrition-related issues Student will spend 2-3 hours per week on out-of-class assignments.

Demonstration of Critical Thinking

Student evaluation will be a combination of written work sheets and examination. Each student will complete a computer analysis of their diet including computer printout and worksheets evaluating carbohydrate, protein, fat, vitamins and minerals, and total calories in relation to their own body weight and activity level. A written summary and analysis of a current nutrition article will be required. A combination of quizzes and exams will be used to evaluate learning, a final exam will be given.

Required Writing, Problem Solving, Skills Demonstration

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Eligible Disciplines

Dietetic technician: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience. Dietetics: See nutritional science/dietetics Nutritional science/dietetics: Master's degree in nutrition, dietetics, or dietetics and food administration OR bachelor's degree in any of the above AND master's degree in chemistry, public health, or family and consumer studies/home economics OR the equivalent. (Note: A bachelor's degree in nutrition, dietetics, or dietetics and food administration, and certification as a registered dietician, is an alternative qualification for this discipline.) Master's degree required. Title 5, section 53410.1 Nutritional science/dietetics: Master's degree in nutrition, dietetics, or dietetics and food administration OR bachelor's degree in any of the above AND master's degree in chemistry, public health, or family and consumer studies/home economics OR the equivalent. (Note: A bachelor's degree in nutrition, dietetics, or dietetics and food administration, and certification as a registered dietician, is an alternative qualification for this discipline.) Master's degree required. Title 5, section 53410.1

Textbooks Resources

1. Required Cengage Learning. Diet and Wellness Plus, ed. New York: Cengage Learning, 2013 Rationale: latest 2. Required Sizer, F., Whitney, E.. Nutrition: Concepts Controversies, ed. Cengage Learning, 2020