

Spokane Community College
COURSE LEARNING OUTCOMES (CLO) AND OUTLINE

Course Title: Nutrition in Healthcare
Prefix and Course Number: Nutri&251
Version Date: 9/29/2022

Course Learning Outcomes

By the end of this course, a student should be able to:

1. Explain the role of micro and macro nutrients (proteins, lipids, carbohydrates, vitamins, major and minor minerals) and their relation to health and performance. Include descriptions of their metabolic functions, properties, deficiency signs and symptoms, toxicity signs and symptoms, dietary requirements, major food sources, and their digestion and absorption.
2. Explain how an individual's nutrition can be assessed and develop individualized plans to help patients meet nutrition goals or follow prescribed diets including low-salt, low-fat, fluid-restricted, and/or calorie-restricted diets.
3. Demonstrate familiarity with nutrition guidelines, food labels, and evaluating foods for nutrient content, including the effects of food processing on nutrient content. Identify the US government agencies charged with maintaining the safety of the food supply and cite their specific areas of responsibility.
4. Identify unique nutrition considerations for individuals affected by specific diseases or disorders. Discuss practical advice or interventions a health care team can provide to improve patient outcomes as they relate to nutrition.
5. Relate dietary patterns and lifestyles to maintenance of health or progression of disease. Identify causes of and resources or solutions for issues of malnutrition, food insecurity, and other conditions negatively impacting an individual's nutrition.
6. Predict potential nutrition concerns in individuals who are receiving enteral or parenteral nutrition support, are taking medications with specific drug-diet interactions, or who have permanent alterations in their body physiology negatively impacting nutrition.
7. For each of the following, discuss the relation of diet and exercise on the development or management of the disease or disorder: diabetes mellitus, obesity, inflammation, GERD, constipation, pancreatitis, malabsorption, IBS, cirrhosis, gallstones, atherosclerosis, coronary heart disease, stroke, hypertension, kidney stones, chronic kidney disease, HIV, and cancer.

Course Outline:

- I. Overview of Nutrition
 - a. Nutrient overview
 - b. DRI and establishing recommendations
 - c. Assessment
 - d. Diet-planning guides and food Labels
 - e. Food safety
 - i. Additives, processing, GMOs, safe practices
 - ii. Government agencies responsible for food safety
- II. Review of Energy-Yielding Nutrients
 - a. Carbohydrates
 - b. Lipids
 - c. Proteins

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- III. Review of metabolism and energy balance
 - a. Body composition vs. body weight
 - b. Health risks associated with body weight and body fat
 - c. Obesity. Weight loss strategies and aggressive strategies
 - d. Problems of underweight
- IV. Vitamins and Minerals
 - a. Fat soluble vitamins
 - b. Water soluble vitamins
 - c. Major minerals
 - d. Trace minerals
- V. Nutrition Applications in the Life Cycle
 - a. Infants
 - b. Children
 - c. Adolescents
 - d. Adult and elderly adults
 - e. Pregnancy and Lactation
- VI. Nutrition Care and Assessment
 - a. Types of assessment information
 - b. Food availability In a community, food insecurity and resources, malnutrition
- VII. Medications and Diet-Drug Interactions
 - a. Drug effects on food intake
 - b. Drugs effects on nutrient absorption, metabolism, and excretion
 - c. Dietary effects on drug absorption, metabolism, and excretion
- VIII. Enteral and Parenteral Nutrition Support
 - a. Indications for each
 - b. Enteral; routes, types of formulas, safe handling, delivering medications, addressing water needs, complications, and transitions to table foods
 - c. Parenteral; administration of solutions, discontinuing parental support, managing complications, and planning at-home nutrition care.
 - i. PPN vs TPN
- IX. Common Diseases and how their pathophysiology influences nutrition needs and/or diet
 - a. Metabolic and Respiratory Stress (inflammation, stress hormones, burns)
 - b. Upper GI (dysphagia, GERD, nausea and emesis, peptic ulcer disease)
 - c. Lower GI (constipation, malabsorption, pancreatitis, celiac disease, IBS, colostomies, and ileostomies)
 - i. Gut microbiome and pro/prebiotics
 - d. Liver Disease and Gallstones (fatty liver, hepatitis, cirrhosis, transplantation, gallstones)
 - e. Diabetes Mellitus
 - f. Cardiovascular Diseases (atherosclerosis, coronary heart disease, hypertriglyceridemia, stroke, hypertension, heart failure)
 - g. Kidney Disease (chronic kidney disease, kidney stones)
 - h. Cancer and HIV