

COURSE OUTLINE
BIOL-206
Nutrition for Health Services
3 Credits

HOWARD COMMUNITY COLLEGE

Description

This course, designed mainly for Science and Pre-Allied Health majors, will enable the student to examine the basic principles of normal nutrition. The student will answer questions and solve problems involving physical and biochemical aspects of digestion, absorption and metabolic functions of the nutrients in the body; caloric requirements; dietary standards; nutrient composition of foods and selection of an adequate diet; and changing nutrient requirements during the different stages of development. In addition, the student will study the influence of social and economic factors on food choices. Prerequisite: BIOL-204. (3 hours weekly)

Overall Course Objectives

Upon completion of this course, the student will be able to:

1. Identify the biological and physiological processes involved in making nutrients available to the body.
2. Explain food energy metabolism and how it relates to body needs for maintenance, growth and various physiological states.
3. Characterize food protein metabolism and how it relates to body needs for maintenance, growth and various physiological states.
4. Describe vitamin and mineral metabolism and how it relates to body needs for maintenance, growth and various physiological states.
5. Utilize food guidelines to develop appropriate diets for different physiological states.
6. Define the role of nutrition in health and disease.
7. Relate the role of nutrition to the clinical setting.
8. Evaluate scientific literature pertaining to nutrition.
9. Relate nutritional concepts to the general public.
10. Identify the current state of knowledge as it relates to science, government, and the public consumer perception.

Major Topics

- I. Current Dietary Considerations
 - A. Current Nutrient Intakes
 - B. Recommended Dietary Guidelines
 - C. Factors Affecting Dietary Habits
 - D. Nutritional Facts and Fallacies

- II. Digestion and Absorption
 - A. Mechanical Digestion
 - B. Chemical Digestion
 - C. Modes of Absorption of Nutrients
 - D. Malabsorption

- III. Metabolism of Nutrients
 - A. Carbohydrate Metabolism
 - B. Lipid Metabolism
 - C. Protein Metabolism
 - D. Vitamin and Mineral Metabolism

- IV. Nutritional Requirements
 - A. Requirements for Growth
 - B. Requirements for Adults
 - C. Requirements for Reproduction
 - D. Requirements for the Elderly

- V. Nutritional Disorders
 - A. Obesity
 - B. Anorexia Nervosa
 - C. Nutrition and Disease

- VI. Government Programs in Nutrition
 - A. Food Safety
 - B. World Nutrition

Course Requirements

Grading/exams: Grading procedures will be determined by the individual faculty member but will be based on unit exams and assigned projects.

Writing: Specific writing assignments will be determined by the individual faculty member.

Other Course Information

This course is a Science core course, Science elective, and an Arts and Sciences elective.