

**Common Course Outline**  
**DNHY 124**  
**Nutrition and Biochemistry in Dentistry**  
**2 Semester Hours**

**The Community College of Baltimore County**

**Description**

**DNHY 124 – 2 Credits – Nutrition and Biochemistry in Dentistry** reviews general nutrition and nutrition biochemistry with emphasis on the relationship between nutrition and dental health. Analysis of diet and application of counseling strategies to assist the client in attaining and maintaining optimum overall health are stressed.

**2 Credits; 2 lecture hours per week**

**Co-requisites: DNHY 120, DNHY 121, DNHY 122, and DNHY 123**

**Overall Course Objectives**

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

1. communicate effectively with clients regarding nutritional habits and relationship to oral and/or systemic disease;
2. explain the role of nutrition in the synthesis and maintenance of the oral tissues;
3. name the classes of essential nutrients, and state their general function in growth and development;
4. examine the role of diet in the initiation and progression of dental caries and periodontal disease;
5. evaluate nutrition issues that may impact oral health throughout the life cycle;
6. examine dietary measures that may prevent or delay the onset of systemic diseases as well as oral diseases;
7. explain dietary goals for people with chronic disease such as obesity, diabetes, hypertension, and cardiovascular disease and how they might impact oral health;
8. describe the Recommended Dietary Allowance (RDA) and United States Department of Agriculture (USDA) nutrient intake standards in terms of their aims, differences, nutrients represented and their application to individual clients;
9. discuss the justification of the development of food consumption guides, the nutrients supplied by the food groupings in each guide and their proper application in clinical nutrition;
10. demonstrate appropriate nutrition assessment and dietary counseling techniques for the treatment of nutrition-related dental diseases;

11. use computer software to determine the nutrient content of his/her own diet, and use nutrient intake guidelines appropriately to evaluate the diet;
12. identify food factors and eating patterns that may contribute to the development of caries and/or impact healing of oral tissues; and
13. propose appropriate dietary recommendations for a dental client.

## **Major Topics**

- I. Nutrition Basics
  - a. Connection between oral health and nutrition
  - b. Guideline for nutrient intake
  - c. Review of digestion and absorption
  - d. Energy balance
  - e. Macronutrients
  - f. Micronutrients
- II. Nutrition and Oral Health
  - a. Dental caries
  - b. Periodontal disease
- III. Nutrition Care Process
  - a. Nutrition screening
  - b. Nutrition assessment
  - c. Diet and/or nutrition counseling
  - d. Nutrition referral
- IV. Life Cycle Nutrition and Oral Health Issues
  - a. Nutrition and pregnancy
  - b. Infant and childhood nutrition
  - c. Issues during adolescence
  - d. Issues during adulthood
  - e. Nutritional considerations in aging

## **Course Requirements**

**Grading/exams:** Grading procedures will be determined by the individual faculty member but will include a minimum of three quizzes and two examinations.

**Writing:** The individual faculty member will determine specific writing assignments, such as an assessment of nutritional status with a client.

## **Other Course Information**

This course is a required course in the dental hygiene degree program. A grade of “C” or better is required for all dental hygiene courses in order to progress within the program.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

