

Course Code: DHG 233

Course Title: Dietary Analysis and Preventive Counseling

Department: Allied Health

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 51.3104

Repeatability: 0

Credit Hours

Catalog Notation: 2-0-2

Credit Hour Distribution:

Lecture: 2

Lab: 0

Clinical: 0

Total: 2

General Course Information

Catalog Description

Study of role of diet upon building and maintaining of oral structures as applied to dental hygiene patient through analysis of total oral consumption and subsequent preventive recommendations.

General Course Objectives

To give an understanding of the basic concepts of nutritional science in relation to general health and the physiology of human bodies, to describe the relationship between nutrition and health of individuals, to provide information on the role of nutrition in the management of dental disease, and to provide knowledge and techniques of dietary analysis and preventive counseling.

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 099	Placement out of CCS 099	None

Prerequisites

Credit in DHG 212, DHG 215, and DHG 216
Admission into the Dental Hygiene program

Methods of Evaluation

Discussion post focusing on international food, 2-4 objective quizzes, 2-3 online discussion board posts, 1 reflective post of clinical nutritional evaluation, 1 annotated bibliography, and 2-3 objective exams.

Instructional Materials and Additional Supplies

Darby's Comprehensive Review of Dental Hygiene, Blue, C.M. 978-0-323-31671-2

Diet and Nutrition in Oral Health, Boyd, L., and Palmer, C. 978-0-13-429672-2

Clinical Practice of the Dental Hygienist, Wilkins, E.M. 978-1496396273

Darby and Walsh Dental Hygiene Theory and Practice, Bowen, D.M., and Pieren, J.A. 978-0-323-47719-2

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Basics of Nutrition; Fluids and Electrolytes	1. Explain why nutrition is important in dentistry. 2. Describe the general relationships between diet and nutrition, and oral health and disease. 3. Define common nutritional terms. 4. Differentiate between essential and nonessential nutrients. 5. List the classes of nutrients. 6. Differentiate between primary and secondary malnutrition. 7. Discuss how digestion occurs along the gastrointestinal tract. 8. Discuss the process of utilization and storage of nutrients. 9. Discuss how the oral cavity is the gatekeeper of nutrition. 10. Describe how taste and smell affect nutrition. 11. Discuss the standards of assessing nutritional adequacy of diets. 12. Discuss the guidelines to be used in planning nutritionally adequate diets. 13. List basic diet and nutrition guidelines to use in diet education of patients. 14. Discuss the proper interpretation of food labels. 15. Discuss the implications of new and future food issues in the economy, including functional foods and genetically engineered foods. 16. List and describe the functions of antioxidants in the body. 17. Discuss some of the major functions of food phytochemicals, functional foods, and nutritional genomics. 18. Discuss the psychological factors contributing to the food habits of individuals and groups. 19. Detail the process for conducting a sound diet assessment. 20. Describe the factors affecting energy balance and factors contributing to energy requirements. 21. Understand approaches to assessing body composition and healthy weight. 22. Discuss the benefits and risks of various approaches to weight loss and potential dental considerations. 23. Explain the consequences of being both underweight and overweight on oral and general health. 24. List the functions of water. 25. Discuss the effects of too much or too little water on the body. 26. List the risk factors for dehydration. 27. Describe the importance of dehydration to oral health. 28. Discuss nutritional implications of caffeine, alcohol, soft drinks, and sports drinks.	5	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Carbohydrates and Effective Communication	1. Describe the chemical composition of carbohydrates. 2. Classify the carbohydrates and provide food sources for each. 3. Detail carbohydrate digestion, absorption, and transport in the body. 4. Discuss carbohydrate metabolism in the body. 5. Detail the recommended dietary guidelines for carbohydrate intake. 6. Discuss the etiology, types, symptoms, and management strategies for diabetes mellitus. 7. Describe the characteristics of the common alternative sweeteners. 8. Describe the caries process and role of diet. 9. Describe the classic diet studies and the major findings from each. 10. Compare and contrast the process of dental caries versus dental erosion and role of dietary factors. 11. Describe cariogenic, noncariogenic, and cariostatic food factors. 12. Explain how dietary patterns and food composition affect cariogenic potential. 13. Discuss the factors that determine patients' readiness to change their habits. 14. List aspects of oral health professional behavior that can undermine rapport with patients. 15. Discuss the factors that can facilitate or impede the interview process. 16. Discuss the factors that can facilitate or impede efforts at effective patient education. 17. Describe oral health professional behaviors that may increase or decrease the likelihood patients will be willing to change. 18. List the major barriers to change. 19. Describe strategies to assist patients to maintain change over time. 20. Detail a systematic procedure for conducting diet screening, risk assessment, and education. 21. Describe how dietary screening, risk assessment, and guidance can be integrated into patient care. 22. Discuss appropriate strategies for helping motivate patients to improve dietary behaviors. 23. Describe some of the common errors made in diet screening and guidance in dental practice.	10	0	0
Protein and Growth and Development of Oral Structures	1. List the general functions of proteins in the body. 2. Discuss the digestion, absorption, and metabolism of proteins. 3. Describe the metabolism of protein in the body, including its role in tissue formation. 4. Give the RDA for protein and list the major food sources. 5. Define protein balance, complete versus incomplete proteins, and protein quality. 6. Discuss the risks of too much or too little protein. 7. Describe the concept of protein complementarity. 8. Discuss the benefits and possible risks of plant-based diets. 9. Discuss how nutritional status affects growth and development of oral tissues and structures. 10. Describe the role of specific nutrients in the development of oral tissues and structures. 11. Describe the nutritional factors that play a role in OFCs (oral facial clefts).	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Lipids, Minerals, and Dietary Supplements	1. List and describe the types of lipids and their function in food. 2. Differentiate between types of fatty acids by their structure. 3. Identify sources of saturated and unsaturated fat in the diet. 4. List the essential fatty acids and their functions in the body. 5. Describe fat digestion, absorption, and transport. 6. List the current recommendations for dietary fat intake. 7. Explain how dietary fat intake affects risk factors for cardiovascular disease. 8. Make recommendations to patients with periodontal disease on appropriate fat intake. 9. Describe how nutrition affects the oral mucosa. 10. List groups at high nutritional risk and recognize when consultation is required. 11. Provide appropriate diet recommendations for patients with periodontal conditions. 12. Discuss the general functions of minerals in the body. 13. List the functions of each mineral, along with its major food sources. 14. Describe the general and oral manifestations of mineral deficiencies. 15. Discuss the roles of calcium in the body. 16. List factors that could interfere with mineral absorption. 17. Discuss the different types of dietary supplements that are available today. 18. Explain the reasons people use dietary supplements. 19. Understand the regulatory aspects of supplements. 20. Distinguish between appropriate and inappropriate uses of dietary supplements. 21. Discuss the potential benefits and risks of dietary supplements. 22. Explain how drugs and supplements can interact. 23. Take a dietary history that includes information on dietary supplement use.	5	0	0
Vitamins	1. Define vitamins, and describe their functions in general. 2. Differentiate between fat- and water-soluble vitamins. 3. For each vitamin, list the major functions, general and oral effects of deficiency and excess, and food sources.	4	0	0
Life Cycle - Pregnancy to Adolescents	1. Discuss the importance of preconception nutrition. 2. Understand the role of appropriate nutrition during pregnancy and know the nutrient needs and recommendations for pregnant women. 3. List the consequences of poor oral health during pregnancy. 4. Identify the nutritional needs of a lactating mother. 5. Comprehend appropriate feeding practices and nutritional needs for infants. 6. Detail the transition to solid foods and eating practices of toddlers. 7. Recognize the key oral health concerns for infants and toddlers. 8. Describe the role of nutrition in the health of children and adolescents as well the unique needs based on age. 9. Identify current issues in nutrition for each age group. 10. Explain how nutrition and oral health are connected for overall health and key dental issues for each age group.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Life Cycle - Adults and Older Adults and Dentally Compromised Patients	1. Identify key diet issues that affect dietary habits and oral health. 2. List and discuss the factors that affect the nutritional requirements of older people. 3. List the common oral conditions of older adults and describe how they can affect nutritional status. 4. Discuss the nutritional implications of oral conditions such as orthodontia, extractions, orthognathic surgery, dentures, and temporomandibular disorders. 5. Develop nutritionally adequate soft and liquid diet plans for patients who are functionally impaired or dentally compromised.	2	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	0	0