Course Information Form (CIF)

Course Code: DHG 119

Course Title: Alterations of Oral Structures

Department: Allied Health
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 26.091
Repeatability: 0

Effective Date: Summer 2026

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 alterations of basic biological processes as applied to the oral structures. Specific disease entities of local and systemic origin are studied.

General Course Objectives

1. Describe the cellular mechanism and clinical manifestation of inflammation, neoplasia, and wound healing and recognize the influence of the immune system on these conditions.
2. Distinguish among groups of symptoms such as reactive, neoplasic, infectious, and developmental.
3. Assess and categorize clinical characteristics and radiographic features of pathological conditions to a level that allows a differential diagnosis.
4. Correlate the signs and symptoms of oral abnormalities with etiologic factors.
5. Describe and identify common oral lesions.
6. Demonstrate the clinical application of oral pathology as it relates to dental hygiene treatment and management of patients.

Minimum Placement Levels

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

Prerequisites

Credit in DHG 110, DHG 111, DHG 113, DHG 114, and BIO 122
Admission into the Dental Hygiene program

Methods of Evaluation

11-14 objective multiple choice quizzes, 1-2 objective multiple choice exams, 1 final exam, 2-3 reflective discussion posts, 2-5 clinical case study assignments, 3-4 worksheet assignments, and 1 final comprehensive review assignment.

Instructional Materials and Additional Supplies

Oral Pathology for the Dental Hygienist by Ibsen and Peters
Case Studies in Dental Hygiene by Thomson and Darbys
Comprehensive Review of Dental Hygiene by Blue

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.
- Critical Thinking and Information Literacy: Students will demonstrate the ability to evaluate perspectives, evidence, and implications, and to locate, assess, and use information effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Introduction to Preliminary Diagnosis of Oral Lesions	1. List and define each of the terms in the vocabulary for this chapter. 2. List and define the eight diagnostic categories that contribute to the diagnostic process. 3. Name a diagnostic category and give an example of a lesion, anomaly, or condition for which this category greatly contributes to the diagnosis. 4. Define the radiographic terms used to describe bone lesions. 5. Define "variant of normal" and describe the following variants of normal: Fordyce granules, torus palatinus, mandibular tori, melanin pigmentation, retrocuspid papilla, lingual varicosities, linea alba, and leukoedema; and identify them in a clinical setting or photograph. 6. List and describe the clinical characteristics and identify a clinical picture of median rhomboid glossitis, geographic tongue, ectopic geographic tongue, fissured tongue, lingual thyroid, and hairy tongue. 7. Define leukoplakia and erythroplakia. 8. Discuss the two risk types of human papillomavirus covered in this chapter. 9. Describe and contrast internal and external tooth resorption.	2	0	0
Inflammation and Repair	1. Define each of the words in the vocabulary list for this chapter. 2. Define sign versus symptom. 3. List the classic sign of inflammation that occurs locally at the site of inflammation. 4. List and describe the major systemic signs of inflammation. 5. List and describe the microscopic events of the inflammatory process. 6. Describe the microscopic events associated with each of the local signs of inflammation. 7. List the white blood cells that are involved in acute and chronic inflammation. 8. List the first and second white blood cells that appear at the site of an injury. 9. Describe the differences between acute and chronic inflammation. 10. List and describe the three biochemical mediators of inflammation. 11. Define and describe regeneration versus repair. 12. Define and contrast hyperplasia, hypertrophy, and atrophy. Give examples of each. 13. Describe the microscopic events that occur during mucosal tissue repair. 14. Describe the microscopic events that occur during healing in bone. 15. Describe healing by primary intention, secondary intention, and tertiary intention. Give an example of each. 16. List local and systemic factors that can impair healing. 17. Describe and contrast attrition, abrasion, and erosion. 18. Describe the pattern of erosion seen in bulimia.	3	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Inflammation and Repair (cont'd)	19. Describe the relationship between bruxism and abfraction. 20. Describe the cause, clinical features, and treatment of each of the following: aspirin and phenol burns, electric burn, traumatic ulcer, frictional keratosis, linea alba, and nicotine stomatitis. 21. Describe the clinical features, cause (when known), treatment, and microscopic appearance of each of the following: traumatic neuroma, post inflammatory melanosis, oral and labial melanotic macule, solar cheilitis, mucocele, ranula, necrotizing sialometaplasia, pyogenic granuloma, peripheral giant cell granuloma, chronic hyperplastic pulpitis, and irritation fibroma. 22. Describe the difference between a mucocele and ranula. 23. Define sialolithiasis. 24. Describe the difference between acute and chronic sialadenitis. 25. Describe the clinical features, radiographic appearance, and microscopic appearance of a periapical abscess, a periapical granuloma, and radicular (periapical) cyst.			
Immunity and the Allergic Response	1. Define each of the words in the vocabulary list for this chapter. 2. Define antigen versus antibody. 3. Describe the differences between an immune response and inflammatory response. 4. Describe the importance of memory of antibodies in the immune response. 5. List and describe the two main types of lymphocytes, including their origins and activities. 6. List and describe the different types of T-cell and B-cell lymphocytes and their functions. 7. List the types of antibodies and where each is found. 8. Describe the origin of macrophages and list their activities in the immune response. 9. Describe the differences between humoral immunity and cell-mediated immunity and include the cells involved in each. 10. Describe the differences between passive and active immunity and give examples of each type of immunity. 11. List and describe four types of hypersensitivity reactions and give an example of each type of hypersensitivity. 12. Describe the process of autoimmunity and how it results in disease. 13. Describe the process of immunodeficiency and how it results in disease. 14. Describe and contrast the clinical features of each of the three types of aphthous ulcers. 15. List systemic disease associated with aphthous ulcers. 16. Describe and compare the clinical features of urticaria, angioedema, contact mucositis, and fixed drug eruption. 17. Describe the clinical features of erythema multiforme and Stevens-Johnson syndrome. 18. Describe the clinical and microscopic appearance of lichen planus. 19. List the triad of systemic signs that comprise reactive arthritis (Reiter syndrome) and describe the oral lesions that occur in this condition. 20. Describe the oral manifestations and treatment of each of the following autoimmune diseases: lupus erythematous, pemphigus vulgaris, mucous membrane pemphigoid, Sjogren syndrome, and Bechet syndrome. 21. Name the distinctive characteristic that distinguishes pemphigus from pemphigoid. 22. Name the cells associated with pemphigus vulgaris. 23. Define desquamative gingivitis, describe the clinical features, and list three diseases in which desquamative gingivitis can occur. 24. Describe the clinical features of Bechet syndrome and Sarcoidosis.	4	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Infectious Diseases Part I	1. Define each of the words in the vocabulary list for this chapter. 2. State the difference between an inflammatory and an immune response to infection. 3. Define the factors that allow opportunistic infections to develop. 4. List two examples of opportunistic infections that can occur in the oral cavity. 5. For each of the following infectious diseases, name the organism causing it, list the route or routes of transmission of the organism and the oral manifestations of the disease, and describe how the diagnosis is made: impetigo, tuberculosis, actinomycosis, and syphilis (primary, secondary, and tertiary). 6. Describe the relationship between streptococcal tonsillitis, pharyngitis, scarlet fever, and rheumatic fever. 7. List and describe the five forms of oral candidiasis. 8. Define NUG and pericoronitis and list the oral manifestations. 9. List the three stages of syphilis and the oral manifestations associated with each.	2	0	0
Infectious Diseases Part II	1. For each of the following infectious diseases, name the organism causing it, list the route or routes of transmission of the organism and the oral manifestations of the disease, and describe how the diagnosis is made: verruca vulgaris, condyloma acuminatum, and primary herpetic gingivostomatitis. 2. Describe the clinical features of herpes labialis. 3. Describe the clinical features of recurrent intraoral herpes simplex infection and compare them with the clinical features of minor aphthous ulcers. 4. Describe the clinical characteristics of herpes zoster when it affects the skin of the face and oral mucosa. 5. List and describe the two diseases associated with Varicella-Zoster Virus. 6. List four diseases associated with the Epstein-Barr virus. 7. List two diseases caused by coxsackieviruses that have oral manifestations. 8. Describe linear gingival epithelium. 9. Describe how HIV infection is diagnosed. 10. Describe the spectrum of HIV disease, including initial infection, latent infection, and the development diagnosis of AIDS. 11. List and describe the clinical appearance of five oral manifestations of HIV.	2	0	0
Developmental Disorders	1. Define the key terms for this chapter. 2. Compare and contrast developmental disorders, inherited disorders, and congenital disorders. 3. Discuss developmental soft tissue abnormalities such as ankyloglossia, commissural lip pits, and a lingual thyroid. 4. Describe the differences between odontogenic and nonodontogenic cysts. 5. Distinguish between intraosseous cysts and extraosseous cysts. 6. Define radicular cyst and describe the causes. 7. Define residual cyst and its cause. 8. Name four odontogenic cysts that are intraosseous. (dentigerous cyst, primordial cyst, odontogenic keratocyst, lateral periodontal cyst) 9. Describe two odontogenic cysts that are extraosseous. (eruption cyst, gingival cyst) 10. Describe two nonodontogenic cysts that are intraossesous. (nasopalatine duct cyst, median palatal cyst) 11. Describe four nonodontogenic cysts that are found in the soft tissues of the head, neck, and oral region. (nasolabial cyst, brachial cleft cyst, epidermal cyst, thyroglossal tract cyst)	3	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Developmental Disorders (cont'd)	12. Define calcifying odontogenic cyst and list the characteristics. 13. Define pseudocyst and list the three types along with the characteristics of each. 14. Define two historical cysts and the characteristics of each. 15. Define the developmental abnormalities of teeth. 16. List, define, and discuss three abnormalities that affect the number of teeth. 17. List, define, and discuss two abnormalities that affect the size of teeth. 18. List, define, and discuss five abnormalities that affect the shape of teeth. 19. List, define, and discuss four abnormalities that affect the structure of teeth. 20. Define, identify, and discuss each of the following abnormalities that affect the eruption of teeth: impacted teeth, embedded teeth, and ankylosed teeth. 21. Identify the diagnostic process that contributes most significantly to the final diagnosis of each developmental anomaly discussed in this chapter.			
Genetics Part I	1. Define each of the key terms. 2. Be able to identify the structure of the genome. 3. Be able to identify a gene, chromosome, allele, and phenotype with a definition. 4. State the purpose of mitosis and explain the four stages of mitosis. 5. State the purpose of meiosis and explain crossing over. 6. Be able to discuss the concept of the Lyon hypothesis, including which chromosome(s) are inactivated and how it affects X-linked traits. 7. Be able to discuss what most cases of Down syndrome are associated with, along with the characteristics of Trisomy 21 and Trisomy 13. 8. Explain what it is meant by a gross chromosomal abnormality and molecular abnormality, and list the five examples of syndromes that result from gross chromosomal abnormalities. (Trisomy 21, Trisomy 13, Turner Syndrome, Klinfelter Syndrome, Cri du Chat Syndrome/Wolf-Hirschhorn Syndrome) 9. Explain the karyotype and phenotype of Turner and Klinefelter syndrome. 10. List the characteristics of autosomal dominant and recessive inheritance patterns, and list the percentage of chance there will be an affected son or daughter. 11. Explain what is meant by X-linked inheritance, and determine the percentage chance there will be an affected son or daughter from a mother who is a carrier of an X-linked recessive trait. 12. State the inheritance pattern and describe the oral manifestations and, if appropriate, the characteristic facies for each of the following: cyclic neutropenia, Papillon-Lefevre syndrome, Ehlers-Danlos, palmoplantar and gingival hyperkeratosis, gingival fibromatosis, Laband syndrome, gingival fibromatosis with hyperkeratosis, and multiple hyaline fibromas.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Genetics Part II	1. State the inheritance pattern and describe the oral manifestations and, if appropriate, the characteristic facies for each of the following: hereditary hemorrhagic telangiectasia, Peutz-Jeghers syndrome, white sponge nevus, hypohidrotic ectodermal dysplasia, hypophosphatasia, and hypophosphatemic vitamin-D resistant rickets. 2. State the inheritance pattern, the oral or facial manifestations, and the type and location of the malignancy associated with each of the following syndromes: multiple mucosal neuromas, medullary carcinoma of the thyroid gland, pheochromocytoma syndrome, and neurofibromatosis of von Recklinghausen. 3. State the location and malignant potential of the intestinal polyps in Peutz-Jeghers syndrome and Gardner syndrome. 4. List the four types of amelogenesis imperfecta. 5. State the inheritance pattern and describe the oral manifestations and, if appropriate, the characteristic facies for each for the following inherited disorders affecting the teeth: amelogenesis imperfecta, dentinogenesis imperfecta, dentin dysplasia, hypohidrotic ectodermal dysplasia, hypophosphatasia, hypophosphatemic vitamin-D resistant rickets, pegged or absent maxillary lateral incisors, and taurodontism.	2	0	0
Neoplasia Part I	1. Define each of the words in the vocabulary list for this chapter. 2. Describe neoplasia, including its causes. 3. Explain the classification of tumors, including the difference between a benign tumor and a malignant tumor. 4. List the common warning signs of a benign neoplasm. 5. Do the following related to the names and treatment of tumors: List tumors in accordance to their tissue or cell of origin. 6. Discuss different ways in which tumors are treated. 7. List the initiating factors in the development of oral cancer. 8. Do the following related to epithelial tumors: List and describe the three different types of epithelial tumors in the oral cavity. 9. Define each of the following tumors of squamous epithelium, describe the clinical features of each, list the most common location(s), and explain how they are treated: papilloma, squamous cell carcinoma, verrucous carcinoma, and basal cell carcinoma. 10. Define and discuss leukoplakia and erythroplakia. 11. Explain the concept of epithelial dysplasia and the microscopic significance of this premalignant condition. 12. Define each of the following salivary gland tumors, describe the clinical features of each, and explain how they are treated: pleomorphic adenoma, monomorphic adenoma, mucoepidermoid carcinoma, and adenoid cystic carcinoma.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Neoplasia Part II	1. Describe the clinical and microscopic features of a calcifying odontogenic cyst and compare and contrast this lesion with an ameloblastoma. 2. Define each of the following odontogenic tumors, describe the clinical features and locations in the oral cavity of each, and explain how they are treated: ameloblastoma, intraoral lymphoma, calcifying epithelial odontogenic tumors, adenomatoid odontogenic tumors, calcifying cystic odontogenic tumors, odontogenic myxoma, central cementifying and ossifying fibromas, benign cementoblastoma, ameloblastic fibroma, ameloblastic fibro-odontoma, and odontoma. 3. Define each of the following peripheral odontogenic tumors, describe the clinical features of each, and explain how they are treated: lipoma, neurofibroma, schwannoma, granular cell tumor, congenital epulis, rhabdomyosarcoma, hemangioma (benign vascular formation), lymphangioma, and Kaposi sarcoma. 4. Define each of the following tumors of melanin-producing cells, describe the clinical features of each, and explain how they are treated: melanocytic nevi and melanoma. 5. Define each of the following tumors of bone and cartilage, describe the clinical features of each, and explain how they are treated: osteoma, osteosarcoma, chondrosarcoma, leukemia, lymphoma, and multiple myeloma. 6. Name the two cells that characterize Langerhans cell disease microscopically. Describe the acute disseminated form, chronic disseminated form, and chronic localized form and state the names that traditionally have been used for each of these conditions. 7. Describe metastatic tumors.	2	0	0
Nonneoplastic Diseases of Bone	1. Define each of the words in the vocabulary list for this chapter. 2. Define dysplasia as it relates to bone disease and differentiate the term from epithelial dysplasia. 3. List the benign fibro-osseous lesions that occur in the jawbones. 4. Do the following related to epithelial dysplasia: 5. Describe the clinical, radiographic, and microscopic features of periapical cemento-osseous dysplasia, focal cemento-ossesous dysplasia, and florid cemento-osseous dysplasia. 6. Compare and contrast periapical cemento-osseous dysplasia, focal cemento-ossesous dysplasia, and florid cemento-osseous dysplasia. 7. Compare and contrast monostotic fibrous dysplasia with polyostotic fibrous dysplasia. 8. List the clinical appearance of polyostotic fibrous dysplasia. 9. Compare and contrast the radiographic appearance, microscopic appearance, and treatment of fibrous dysplasia of the jaws with those of ossifying fibroma of the jaw. 10. Compare and contrast the three types of polyostotic fibrous dysplasia. 11. Describe the microscopic appearance of Paget's disease of bone and describe its clinical and radiographic appearance when the maxilla or mandible is involved. 12. List the laboratory evaluation needed for a diagnosis of Paget's disease. 13. Describe the clinical, radiographic, and microscopic features of central giant cell granuloma and aneurysmal bone cyst. 14. Describe the cause of osteomalacia and rickets.	2	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Oral Manifestations of Systemic Disease Part I	1. Define each of the words in the vocabulary list for this chapter. 2. Describe the difference between gigantism and acromegaly, and list the physical characteristics of each. 3. State the oral manifestations of hyperthyroidism and hypothyroidism. 4. List the most common cause of hyperthyroidism. 5. Describe the difference between primary and secondary hyperparathyroidism. 6. List the oral and systemic manifestations that occur in the uncontrolled diabetic state. 7. List the major clinical characteristics of type 1 and type 2 diabetes. 8. List common complications and most common cause of death in diabetics. 9. Define Addison disease and describe the changes that occur on the skin and oral mucosa in a patient with Addison disease. 10. Compare and contrast the causes, laboratory findings, and oral manifestations of each of the following: iron deficiency, anemia, pernicious anemia, folic acid deficiency, and vitamin B12 deficiency. 11. Compare and contrast the definitions and oral manifestations of beta-thalassemia major and sickle cell anemia. 12. List the cause of hyperpituitarism. 13. List the signs and symptoms of hyperparathyroidism.	2	0	0
Oral Manifestations of Systemic Disease Part II	1. Describe the difference between primary and secondary aplastic anemia. 2. Compare and contrast primary and secondary polycythemia and describe the oral manifestations. 3. Explain why platelets may have deficiency in polycythemia vera. 4. Describe the most characteristic oral manifestations of agranulocytosis. 5. Describe and contrast acute and chronic leukemia. 6. State the purpose of each of the following laboratory tests: platelet count, bleeding time, prothrombin time, partial thromboplastin time, and international normalized ratio. 7. List two causes of thrombocytopenic purpura. 8. Describe the oral manifestations of thrombocytopenia and nonthrombocytopenic purpura. 9. Define hemophilia and describe its oral manifestations and treatment. 10. Describe the difference between primary and secondary immunodeficiency. 11. Describe the oral problems that would be expected to occur in a patient with radiation-induced xerostomia and medications to relieve symptoms. 12. List two drugs that are associated with gingival enlargement. 13. Describe the criteria used to define bisphosphonate-associated osteonecrosis of the jaw. 14. Define leukopenia. 15. Describe the oral manifestations of cyclic neutropenia. 16. Describe the characteristics of celiac disease. 17. Describe the clinical features, oral manifestations, diagnosis, and treatment of burning mouth disorder. 18. Describe the clinical features, diagnosis, and treatment of trigeminal neuralgia. 19. Describe the clinical features, diagnosis, and management of Bell's palsy (idiopathic facial paralysis).	2	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	0	0