SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: DHYG 201 Department: Dental Hygiene

Course Title: Oral Pathology Semester: Spring Year: 1997

Objectives/Competencies

Course Objective	Competencies
1. To ground the dental hygiene student in the principles of pathology to competently study oral pathology, clinical dental hygiene and special disease processes. 2. To aid the dental student to apply knowledge of diseases, disorders, and deficiencies to clinical practice. 3. Identify and define concepts of disease, i.e., inflammation, regeneration, repair and hypertrophy and etc. 4. Identify and discuss differences between benign and malignant neoplasis. 5. Discuss major etiological factors of pulp and periapical diseases. 6. Recognize pulp and periapical pathology on x-rays. 7. Describe clinical manifestations of infectious diseases in the oral cavity. 8. Identify and describe oral and physical and chemical injuries seen in the oral cavity i.e., fractures of the teeth, traumatic bone cysts, aspirin burn, denture injuries, and etc. 9. Describe the clinical and histological manifestations of	1. Introduction to Preliminary Diagnosis – Jan 22 a. Define terms listed in the descriptive vocabulary. b. List and define the eight diagnostic areas that contribute to the diagnostic process. c. Name a diagnostic area and give an example of a lesion, anomaly, or condition for which this area contributes greatly to diagnosis. d. Describe and identify the clinical appearance of Fordyce's granules (spots), torus palatinus, mandibular tori, and lingual varicosities. e. Describe the radiographic picture and historic data (including the age, sex, and race of the patient) that are relevant to cementoma. f. Define variant of normal and give three examples of such lesions involving the tongue. g. List and describe the clinical characteristics and identify the clinical picture of fissured tongue, geographic tongue, ectopic geographic tongue, hairy

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tumors originating orally, i.e., odontogenic cysts, odontomas, ameloblastic fibromas, etc. 10. Describe the clinical and histological manifestations of oral epithelial tumors originating orally, i.e., odontogenic cysts, odontomas, ameloblastic fibromas, etc. 11. Discuss differences between hyperkeratosis, acanthosis, dysplasia, and carcinomal in situ. 12. Discuss tumors of mesenchymal origin and salivary gland origin, i.e., lipoma, hemangioma, fibroma, pyogenic granuloma, tori, and etc.	tongue, and median rhomboid glossitis. h. Describe the clinical and histologic differences between leukodema and linea alba. 2. Inflammation and Repair – Jan 29, Feb 5 a. Define each of the words in the vocabulary list for this chapter. b. List the five "cardinal sins" of inflammation that are visible at the site of inflammation. c. List three systemic signs of inflammation. d. List and describe the microscopic events of the inflammatory process, beginning with injury and ending with phagocytosis of foreign and necrotic substances. e. List the three primary types of white blood cells that participate in inflammation and describe the function of each. f. Describe the differences between acute and chronic inflammation. g. Describe the microscopic events that occur during the repair of a mucosal wound. h. Describe and contrast healing of primary intention, healing by secondary intention, and healing by tertiary intention. i. Define and contrast hyperplasia and hypertrophy. j. Describe and contrast attrition, abrasion, and erosion. k. Describe the relationship between bruxism and

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	abrasion. l. Describe the cause, clinical features, and treatment of each of the following: Aspirin and phenol burns, electric burn, traumatic ulcer, frictional keratosis, nicotine stomatitis, linea alba. m. List the triad of systemic signs that compose Reiter's syndrome and describe the oral lesions that occur in this syndrome. n. Name the three diseases that are included in the classification of histiocytosis X. State the range of ages affected and the oral manifestions if any, and the prognosis of each disease. Name the two cells that characterize these diseases histologically. o. Describe the oral manifestations of each of the following autoimmune diseases. Sjogren's Lupus erythemotosus Pemphigus vulgaris Cicatricial pemphigoid Behcet's syndrome p. Describe the features of desquamative gingivitis and list three diseases that may occur. q. Describe the components of Behcet's syndrome. r. 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

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	diagnosis is made. - Tuberculosis - Actinomycosis - Syphilis (primary, secondary, tertiary) - Verruca vulgaris - Condyloma acuminatum - Primary herpetic gingivostomatitis s. List and describe four forms of oral candidiasis. t. Describe the clinical features of herpes labialis. u. Describe the clinical features of herpes labialis. v. List two examples of opportunistic infections that can occur in the oral cavity. w. Describe the clinical features of intraoral herpes simplex infection and compare them to the clinical features of minor aphthous ulcers. x. Describe the characteristics of herpes zoster when it affects the facial area and oral cavity. y. List two oral infectious diseases for which a cytologic smear may be helpful to the diagnosis. z. List the four diseases associated with the Epstein-Barr virus that occur in the oral region. aa. Give one example of active immunity, and give one example of passive immunity. bb. Define autoimmunity, and describe how it results in disease. cc. Define immunodeficiency, and describe how it results in disease.

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	dd. Define how infection occurs and the factors involved. ee. Describe the mechanism that allows opportunistic infection to develop. 3. Developmental Diseases – April 30 a. Define all of the terms in the vocabulary list. b. Define inherited disorders. c. Recognize developmental disorders of dentition. d. Describe the clinical features, cause (when known), treatment, and histological appearance of the following: - traumatic neuroma - postinflammatory melanin pigmentaion - solar cheilitis - mucoele - ranula - necrotizing sialometaplasia - pyogenic granuloma - giant cell granuloma - chronic hyperplastic pulpitis - irritation fibroma - epulis fissuratum - papillary hyperplasia - gingival hyperplasia e. Describe the differences between a mucocele and a ranula. f. Define sialolithiasis.

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	g. Describe the difference between acute and chronic sialadenitis. h. Describe the features, radiographic, appearance, and histological appearance of a periapical abcess, a periapical granuloma, and a periapical (radicular) cyst. i. Describe and contrast internal and external tooth resorption. j. Define the term flare and wheal. k. List the types of white blood cells that participate in inflammation and describe the function of neutrophils and monocytes. l. Describe the pattern of erosion seen in bulimia. 4. Immune Response and Immune Injury – Feb 12, Feb 26 a. Define each of the words in the vocabulary list for this chapter. b. Describe the primary differences between the immune response and the inflammatory response. c. List the two main types of lymphocytes. d. List three activities of macrophages. e. Describe the differences between humoral immune response and the cell mediated immune response. f. Describe the difference between active and passive immunity. g. List and describe four types of hypersensitivity reactions and give an example of each. h. Describe and contrast the clinical features of each of

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	the three types of apthous ulcers. i. List the three systemic diseases associated with apthous ulcers. j. Describe and compare the clinical features of urticaria, angioedema, contact mucositis, fixed drug eruption, and erythema multiforme. k. Describe the clinical and histological features of lichen planus. 5. Neoplasias – March 26, April 2 a. Define all terms in the vocabulary list. b. Explain the difference between a benign tumor and a malignant tumor. c. Define leukoplakia and erthroplakia. d. Define the neoplasms listed below. e. Describe the clinical features of each neoplasm. f. Explain the usual treatment of each neoplasm. Papilloma Hermangioma Squamous cell carcinoma Lymphangioma Verruccous carcinoma Granular cell tumor Basal cell carcinoma Neurofibroma and schwannoma Pleomorphic adenoma Rhabdomyosarcoma

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	Adenoid cystic carcinoma Melanoma Ameloblastoma Mandibular torus Calcifying epithelial ondontogenic tumor (Pindborg Tumor) Palatine torus Exostosis Adenomatoid odontogenic tumor Osteoma Myxoma Ossifying fibroma Cementifying fibroma Pariapical cemental dysplasia Ossifying fibroma (peripheral and central) Osteogenic sarcoma Chondrosarcoma Cementoblastoma Leukemia Ameloblastic fibroma Multiple myeloma Odontoma Metastaic jaw Lipoma g. Describe the clinical and histological features of the calcifying odontogenic cyst, and explain why it is sometimes considered a neoplasm.

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	h. Describe the clinical features, radiographic appearance, and management of periapical cemental dysplasia and florid osseous dysplasia. 6. Genetics – April 23 a. Define each of the terms listed in the vocabulary. b. State the purposes of mitosis. c. State the purposes of meiosis. d. Explain what is meant by the Lyon hypothesis and give an example of its clinical significance. e. Explain what is meant by gross chromosomal abnormality and give three examples of syndromes that result from gross chromosomal abnormalities. f. List the four inheritance patterns. g. Explain what is meant by X linked inheritance. h. State the inheritance pattern and describe the oral manifestations and if appropriate, the characteristic facies of each of the following: - Cyclic neutropenia - Papillon Lefevre syndrome - Cherubism - Chrondroectodermal dysostosis - Mandibulofacial dysostosis - Osteogenesis imperfecta - Hereditary hemorrhagic telangiectasia - Peutz-Jeghers syndrome - White spongy nevus

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	- Hypophosphatemic vitamin D-resistant rickets - Hypohidrotic ectodermal dysplasia i. State the inheritance pattern, oral manifestations, and the type and location of the malignancy associated with the following syndromes: - Neurofibromatosis of von Recklinghausen - Gardner's syndrome - Multiple nevoid basal cell carcinoma syndrome - Multiple mucosal neuromas, medullary carcinoma of the thyroid and pheochromocytoma syndrome (MEN 2B) j. Intestinal polyps are a component of both Peutz-Jeghers syndrome and Gardener's syndrome. State the location and malignant potential of the intestinal polyps in each of these syndromes. k. List the four types of amelogenesis imperfecta. l. Briefly compare and contrast dentinogenesis imperfecta, amelogenesis imperfecta, and dentin dysplasia, including the inheritance patterns and clinical manifestations and radiographic appearance of each. 7. Oral Manifestations of Systemic Diseases – April 9, 16 a. Define each of the words in the vocabulary list. b. Describe the difference between gigantism and acromgaly and describe the physical characteristics of

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	each. c. State the oral manifestations of hyperthyroidism. d. Describe the difference between primary and secondary hyperparathyroidism and describe the oral manifestations. e. Define diabetes mellitus and describe the oral manifestations. f. Define Addison's disease and describe the changes that occur on the skin and oral mucosa. g. Compare and contrast monostotic fibrous dysplasia with polyostotic fibrous dysplasia. h. Compare and contrast the radiographic appearance, histologic appearance, and treatment of fibrous dysplasia of the jaw with that of ossifying fibroma of the jaws. i. Compare and contrast the three types of polyostotic fibrous dysplasia. j. Describe the histologic appearance of Paget's disease of bone and describe its clinical and radiographic appearance when the maxilla or mandible is involved. k. State what causes osteomalacia and rickets. l. Compare and contrast the cause, laboratory findings, and oral manifestations of each of the following: iron deficiency anemia, pernicious anemia, folic acid deficiency, and vitamin B12 deficiency. m. Compare and contrast the definitions and oral manifestations of thalassemia and sickle cell anemia.

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	n. Define celiac sprue. o. Describe the difference between primary and secondary aplastic anemia. p. Explain why platelets may be deficient in polycythemia vera. q. Describe the oral manifestations of polycytemia. r. Describe the most characteristics oral manifestation of agranulocytosis. s. Describe and contrast acute and chronic leukemia. t. State the purpose of each of the following laboratory tests: platelet count, bleeding time, prothrombin time, partial thromboplastin time. u. List the two causes of thromboytopenia purpura. v. Describe the oral manifestations of thrombocytopenia and noncytopenic purpura. w. Define hemophilia and describe oral manifestations and treatment. x. Describe the difference between primary and secondary immunodeficiency. y. Describe the spectrum of HIV disease from infection to the development of AIDS. z. List five oral manifestations of HIV infection.