El Paso Community College
Syllabus
Part II
Official Course Description

SUBJECT AREA	**Dental Hygiene**
COURSE RUBRIC AND NUMBER	**DHYG 1239**
COURSE TITLE	**General and Oral Pathology**
COURSE CREDIT HOURS	**2 Credits 2 Lec. 1 Lab**

I. Catalog Description

This course is designed to provide a general study of disturbances in human body development, diseases of the body, with emphasis affecting the oral region and associated structures. Recognized by the slightest deviation from normal, using critical thinking skills and techniques, while in the classroom/lab, and dental clinic setting. Making independent observations and clinicopathologic connections. Developing the necessary skills, and techniques to implement a thorough extraoral and intraoral examination that will ensure identification of abnormal conditions in the oral regions of the body, both radiographic and clinical as early as possible with a 75% (C) or higher certainty on ALL learning assessments.**Prerequisites: BIOL 2401, BIOL 2402, CHEM 1306, CHEM 1106. Corequisites: DHYG 1103, DHYG 1201, DHYG 1219, DHYG1304, DHYG 1431. (2:1)**

II. Course Objectives

Upon Completion of this course the student will learn, and be able to:

A. Head, Neck, Extra/Intra Oral Examinations
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. Label anatomical features of the head and neck.
3. Define and describe head and neck examination, extraoral and intra oral examination, soft tissue lesions.

B. Preliminary Diagnosis of Oral Lesions
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. List and describe clinical appearance of soft tissue lesions.
3. List and describe soft tissue consistency, color of lesion, size of lesion, and surface texture.
4. Discuss and differentiate between radiolucent and radiopaque in relations to oral pathology.
5. Discuss, describe, and contrast radiographic terms used to describe lesions in bone.
6. Describe the radiographic appearance and historical data, (including the age, sex, and the race of the patient) that are relevant to periapical cemento-osseous dysplasia (cementoma).
7. List, and differentiate between dysphagia, Dysphonia, and dyspnea.
8. List, define, describe, and differentiate the eight categories in the diagnostic process; include examples of a lesion, anomaly, or condition for each diagnostic category.
9. Define leukoplakia and erythroplakia.
10. List and describe “variants of normal” Provide several examples.
11. Identify variants of normal and differentiate three examples of such lesions involving the tongue.
12. List and describe the clinical characteristics and identify a clinical picture of fissured tongue, median rhomboid glossitis, geographic tongue, ectopic geographic tongue, and hairy tongue.
13. Describe the clinical and histologic differences between leukoedema and linea alba.
14. List, define, and describe other benign conditions with unique clinical features.
15. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.

16. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.

C. Inflammation and Repair
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. Define innate defenses.
3. List and define eight diagnostic categories, the five cardinal signs of inflammation and the microscopic events associated with each, including the differences between acute and chronic inflammation.
4. List three systemic signs of inflammation.
5. List the types of white blood cells that participate in inflammation and describe how each is involved.
6. Define and contrast hyperplasia and hypertrophy.
7. Describe and contrast healing by primary intention, healing by secondary intention, and healing by tertiary intention.
8. Describe and contrast attrition, abrasion, and erosion.
9. Describe the cause, clinical features, and treatment of each of the following:
    - Aspirin and phenol burns,
    - Electric burn,
    - Traumatic ulcer,
    - Frictional keratosis,
    - Linea Alba,
    - Nicotine stomatitis.
10. Describe the clinical features, cause (when known), treatment, and histologic appearance of each of the following:
    - Traumatic neuroma,
    - Post inflammatory melanosis
    - Solar cheilitis
    - Mucocele
    - Ranula
    - Necrotizing sialometaplasia
    - Pyogenic granulosa
    - Giant cell granuloma
    - Chronic hyperplastic pulpitis
    - Irritation fibroma
11. Describe the difference between a mucocele and a ranula.
12. Define sialolithiasis.
13. Describe the difference between acute and chronic sialadenitis.
14. Describe the clinical features, radiographic appearance, and histologic appearance of a periapical abscess, a periapical granuloma, and a periapical (radicular) cyst.
15. Describe and contrast internal and external tooth resorption.
16. Discuss anti-inflammatory therapy.
17. Discuss reactive tissue and adaptive responses to injury.
18. Describe the steps in tissue repair.
19. Discuss and contrast traumatic injuries to teeth.
20. Discuss and contrast injuries to oral soft tissue.
21. Discuss and contrast reactive connective tissue hyperplasia.
22. Discuss and contrast inflammatory periapical lesions.
23. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.
24. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.

D. Developmental Disorders
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. Identify clinically, radiographically, or both, the developmental anomalies discussed in this chapter.
3. Compare and contrast developmental disorders, inherited disorders, and congenital disorders.
4. Describe the embryonic development of the face, oral cavity, and teeth.
5. List and describe developmental soft tissue abnormalities.
6. List and describe developmental cyst.
7. Distinguish between intraosseous cysts and extraosseous cysts.
8. Describe the differences between odontogenic and nonodontogenic cysts.

9. Name four odontogenic cysts that are intraosseous.
10. Name two odontogenic cysts that are extraosseous.
11. Name four nonodontogenic cysts that are introsseous.
12. Name four nonodontogenic cysts that are extraosseous.Compare and contrast developmental abnormalities of teeth.
13. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.
14. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.

E. Genetics
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.State the purpose of mitosis.
2. State the purpose of meiosis.
3. Explain what is meant by the Lyon hypothesis, and give example of its clinical significance.Explain what is meant by a gross chromosomal abnormality, and give three examples of syndromes that result from gross chromosomal abnormalities.
4. List the four inheritance patterns.
5. Explain what is meant by X-linked inheritance.
6. State the inheritance pattern, and describe the oral manifestations and, if appropriate, the characteristic facies for each of the following:
   - Cyclic neutropenia
   - Papilon-LefŠvre syndrome
   - Cherubism
   - Chondroectodermal dysplasia
   - Mandibulofacial dysostosis
   - Osteogenesis imperfect
   - Hereditary hemorrhagic telangiectasia
   - Peutz-Jeghers syndrome
   - White sponge nevus
   - Hypohidrotic ectodermal dysplasia
   - Hypophosphatasia
   - Hypophosphatemic vitamin D-resistant rickets.
7. State the inheritance pattern, the oral or facial manifestations, and the type and location of the malignancy associated with each of the following syndromes:
   - Gardner's syndrome
   - Nevoid basal cell carcinoma syndrome
   - Multiple mucosal neuromas
   - Medullary carcinoma of the thyroid gland
   - Pheochromocytoma syndrome (MEN 2B)
   - Neurofibromatosis of von Recklinghausen
   - Peutz-Jeghers syndrome
   - Gardner's syndrome
8. State the location and malignant potential of the intestinal polyps in each of these syndromes.
9. List the four types of amelogenesis imperfecta.
10. Briefly compare and contrast dentinogenesis imperfecta, amelogenesis imperfecta, and dentin dysplasia, including the inheritance patterns and the clinical manifestations and radiographic appearance of each.
11. Define Chromosomes.
12. List, define, and describe normal cell division.
13. Describe the Sex Chromosomes (Lyon Hypothesis).
14. Discuss and describe molecular composition of chromosomes.
15. List and describe genes and chromosomes.

F. Immunity and Immunologic Oral Lesions
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. List, define, and describe immune response, antigens in the immune response, cytokines in the immune response, major divisions of the immune response, and cellular involvement.
3. Describe types of immunity.
4. List, define, and describe immunopathology.
5. Compare and contrast oral immunologic lesions and diseases.

6. Compare and contrast autoimmune diseases with oral manifestations.
7. Describe and contrast primary and secondary immunodeficiencies.
8. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.
9. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.
10. Describe using the cells involved, the difference between the humoralimmune response and the cell-mediated immune response.
11. Describe the difference between active and passive immunity. Provide examples for both.
12. List and describe four types of hypersensitivity reactions, and give an example of each.
13. Define autoimmunity, and describe how it results in disease.
14. Define immunodeficiency, and describe how it results in disease.
15. Describe and contrast the clinical features of each of the three types of aphthous ulcers.
16. List three systemic diseases associated with aphthous ulcers.
17. Describe and compare the clinical features of urticaria, angioedema, contact mucositis, fixed drug eruption, and erythema multiforme.
18.
19. Describe the clinical and histologic features of lichen planus.
20. List and triad of systemic signs that compose Reiter's syndrome, and describe the oral lesions that occur in this syndrome.
21. Name the two cells that histologically characterize Langerhans cell disease.
22. Describe the acute disseminated for, chronic disseminated form, and the chronic localized form and state the names that have traditionally been used for each of these conditions.
23. Describe the oral manifestations of each of the following autoimmune diseases:
    - Sjögren syndrome
    - Lupus erythematosus
    - Pemphigus vulgaris
    - Cicatricial pemphigoid Behcet syndrome.
24. Describe the clinical features of desquamative gingivitis, and list three diseases in which it may occur.
25. Describe the components of Behcet's syndrome.
26. Describe how infection occurs and the factors involved.
27. Describe the mechanism that allows opportunistic infection to develop.
28. Describe each of the following infectious diseases, name the organism causing it.
29. List the route or routes of transmission of the organism and the oral manifestations of the disease.
30. Describe how the diagnosis of the following is made:
    - Tuberculosis,
    - Actinomycosis
    - Syphilis (primary, secondary, tertiary)
    - Verruca vulgaris
    - Condyloma acuminatum
    - Primary herpetic gingivostomatitis
31. List and describe four forms of oral candidiasis.
32. List two examples of opportunistic infections that can occur in the oral cavity.
33. Describe the clinical features of herpes labialis.
34. Describe the spectrum of HIV disease, including initial infection and the development of AIDS.
35. List five oral manifestations of HIV infection.
36. Describe the oral problems that would be expected to occur in a patient with radiation-induced xerostomia.
37. List two drugs that have been associated with gingival enlargement.

G. Infectious Diseases
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. List, define, and describe all bacterial, fungal, and viral infections, including Human Immunodeficiency virus (HIV), and Acquired Immunodeficiency Syndrome (AIDS), as it relates to the oral region.
3. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.
4. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.

H. Neoplasia
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. List, define, and describe neoplasia, including the causes of neoplasia.

3. List, and discuss the name of all associated tumors, as it relates to the oral mucosa.
4. Explain the difference between a benign tumor and a malignant tumor.
5. Define leukoplakia and erythroplakia.
6. Define the neoplasms listed below.
7. Describe the clinical features of each neoplasm listed below.
8. Explain the usual treatment for each neoplasm listed below:
    - Papilloma
    - Squmaous cell carcinoma
    - Verrucous carcinoma
    - Basal cell carcinoma
    - pleomorphic adenoma
    - Adnoid cystic carcinoma
    - Mucoepidermoid carcinoma
    - Ameloblastoma
    - Calcifying epithelial odontogenic tumor
    - Cementifying and ossifying fibromas
    - Benign cementoblastoma
    - Periapical cement-oseous dysplasia
    - Focal cement-oseous dysplasia
    - Florid cement-osseous dysplasia
    - Ameloblastic fibroma
    - Adenomatoid odontogenic tumor
    - Calcifying odontogenic tumor
    - Calcifying odontogenic cyst
    - Odontoma
    - Peripheral ossifying fibroma
    - Chondrosarcoma
    - Leukemia
    - Lymphoma
    - Multiple myeloma
    - Metastatic jaw tumors
    - Lipoma
    - Neufibroma and schwannoma
    - Granulaar cell tumor
    - Congenital epulis
    - Rhabdomyosarcoma
    - Hemangioma
    - Lymphangioma
    - Kaposi’s sarcoma
    - Melanocytic nevi
    - Malignant melanoma
    - Torus
    - Extosis
    - Osteoma
    - Osteosarcoma.
9. State the treatment of tumors.
10. List, define, and describe the three epithelial tumors.
11. Describe, and differentiate tumors of squamous epithelium.
12. Describe and differentiate odontogenic tumors.
13. List, define, and describe tumors of melanin-producing cells, tumors of bone cartilage, tumors of blood-forming tissues, and metastatic tumors.
14. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.
15. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.

I. Nonneoplastic Diseases of Bone
    1. Define all key words from reading assignments, PowerPoint, manual, and handouts.

2. List, define, describe, identify, and differentiate benign fibro-osseous lesions.
3. Define, and identify paget disease of the bone.
4. Define, and identify central cell granuloma (central giant cell lesion).
5. Define, and describe aneurysmal bone cyst.
6. Define, and describe osteomalacia.
7. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.
8. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.

J. Oral Manifestations of Systemic Disease.
1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. List, define, Identify, describe, and differentiate, all seven endocrine disorders, include examples.
3. Define blood disorders.
4. List, define, differentiate, and describe disorders of red blood cells and hemoglobin.
5. List, define, differentiate, and describe disorders of all white blood cells.
6. Describe celiac disease.
7. Define bleeding disorders.
8. List, define, and describe hemostasis.
9. Define, describe, and differentiate purpura.
10. Define, and describe hemophilia.
11. Define oral manifestations of therapy for oral cancer.
12. Describe radiation therapy, and the risk involved. Provide example management applications, as it relates to the oral region.
13. Define, and describe chemotherapy, and the risk involved. Provide example management applications, as it relates to the oral region.
14. Identify, and describe effects of drugs on the oral cavity. Provide examples.
15. Describe the difference between gigantism and acromegaly, and describe the physical characteristics of each.
16. State the oral manifestations of hyperthyroidism.
17. Describe the difference between primary and secondary hyperparathyroidism.
18. Define diabetes mellitus, and describe the oral manifestations.
19. List the major clinical characteristics of type I and type II diabetes.
20. Define Addison's disease, and describe the changes that occur on the skin and oral mucosa in a patient with Addison's disease.
21. Compare and contrast monostotic fibrous dysplasia with polyostotic fibrous dysplasia.
22. Compare and contrast the radiographic appearance, histologic appearance, and treatment of fibrous dysplasia of the jaws with those of ossifying fibroma of the jaws.
23. Compare and contrast the three types of polyostotic fibrous dysplasia.
24. Describe the histologic appearance of Paget's disease of bone, and describe its clinical and radiographic appearance when the maxilla or mandible is involved.
25. State the cause of osteomalacia and rickets.
26. Compare and contrast the cause, laboratory findings, and oral manifestations of each of the following:
    - Iron deficiency anemia
    - Pernicious anemia
    - Folic acid deficiency
    - Vitamin B12 deficiency
27. Compare and contrast the definitions and oral manifestations of thalassemia and sickle cell anemia.
28. Define celiac sprue.
29. Describe the difference between primary and secondary aplastic anemia.
30. Describe the oral manifestations of polycythemia.
31. Explain why platelets may be deficient in polycythemia vera.
32. Describe the most characteristic oral manifestations of agranulocytosis.
33. Describe and contrast acute and chronic leukemia.
34. State the purpose of each of the following laboratory tests:
    - Platelet count
    - Bleeding time
    - Prothrombin time
    - Partial thromboplastin time
35. List two causes of thrombocytopenic purpura.

36. Describe the oral manifestations of thrombocytopenia and nonthrombocytopenic purpura.
37. Define hemophilia, and describe its oral manifestations and treatment.
38. Describe the difference between primary and secondary immunodeficiency.
39. Describe the spectrum of HIV disease, including initial infection and the development of AIDS.
40. List five oral manifestations of HIV infection.
41. Describe the oral problems that would be expected to occur in a patient with radiation-induced xerostomia.
42. List two drugs that have been associated with gingival enlargement.
43. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.
44. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.

K. Orofacial Pain and Temporomandibular Disorders

1. Define all key words from reading assignments, PowerPoint, manual, and handouts.
2. Define, and describe orofacial pain and temporomandibular disorders.
3. Identify, and describe the clinical features, oral manisfestatons, diagnosis, and treatment of burning mouth disorder (burning mouth syndrome).
4. Provide examples. Identify, and describe clinical features, diagnosis, and management of trigeminal neuralgia (TIC doulourex) provide examples.
5. Identify, and describe clinical features, diagnosis, and management of Bell's Palsy (idiopathic facial paralysis, idiopathic seventh nerve paralysis). Provide examples.
6. Identify, describe, and label the following anatomy of the temporomandibular joint:
   - Glenoid (mandibular) fossa of the temporal bone
   - Articular disk
   - Mandibular condyle
   - Joint capsule
   - Superior belly of the lateral pterygoid muscle.
7. State the function of the muscles of mastication,
8. Describe the normal function of the temporomandibular joint.
9. Define, describe, and differentiate temporomandibular disorders. Provide examples.
10. Discuss, and describe location, symptomatology, and any associated lymphadenopathy.
11. Discuss how you manage, and communicate with the patient, and dentist according to your findings for each of the above abnormalities.

III. Evaluations and Grading

A. **Evaluations: Course evaluations will include the following:**

1. **Weekly Quizzes (18%**) covering material presented in class, videos, manuals, PowerPoint slides, case studies, and reading assignments
2. **Participation (2%)** The student will ask questions, be involved as much as possible, as this is essential to your learning and growth. It's imperative to retain, and have lifelong learning.
3. **Test 1** Covering first day of class material
4. **Clinical Case Study Presentations (15%)** The student will apply and present a common oral pathology tissue lesion using a complete written description of the following; Clinical feature, Radiographic feature (if applicable), Microscopic features (if applicable), Age, Race, and Gender (if applicable), Location, Cause, Clinical Management, Communication Techniques, and the following diagnosis of the abnormality in the picture, and treatment.
5. A **Midterm Examination (15%)** covering first half of the semester
6. A **Final Written Examination (20%)** covering all required course material (comprehensive)
7. A **Final Slide Identification Examination (15%)** for all pictures covered in class, and/ or slides from the beginning of the semester (comprehensive).

B. **Grading Criteria:**
Successful course completion and the final course grade will be determined according to the following criteria:

Weekly Quizzes	18%
Participation	2%
Test 1	15%

Midterm Examination	15%
Clinical Case Study Presentations	15%
Final Written Examination	20%
Final Slide Identification Examination	15%
	100%

C. **Grading Scale:**
A MINIMUM GRADE OF 75% IS REQUIRED TO PASS WITH A "C" IN DHYG 1239

A = 93 - 100
B = 83 - 92
C = 75 - 82
D = 65 - 74
F = 0 - 64

IV. Disability Statement (American with Disabilities Act (ADA))

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (915-831-2426); TM Rm 1400 (915-831-5808); RG Rm B-201 (915-831-4198); NWC Rm M-54 (915-831-8815); and MDP Rm A-125 (915-831-7024).

V. Six Drop Rule

Students who began attending Texas Public institutions of higher education for the first time during fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see counseling Services if dropping because exemptions may apply. Refer to the PCC catalog and website for additional information.

VII. Title IX and Sex Discrimination

Title 9 (20 U.S.C. 1681 & 34 C.F.R. Part 106) states the following "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance." The Violence Against Women Act (VAWA) prohibits stalking, date violence, sexual violence, and domestic violence for all students, employees and visitors (male and female). If you have any concerns related to discrimination, harassment, or assault (of any type) you can contact the Assistant to the Vice President for Student and Enrollment Services at 915-831-2655. Employees can call the Manager of Employee Relations at 915-831-6458. Reports of sexual assault/violence may also be reported to EPCC Police at 915-831-2200.