



CAMOSUN COLLEGE
School of Health & Human Services
Dental Programs

DHYG 321 Oral Science 2
2014

COURSE OUTLINE

1. Instructor Information

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| (a) Instructor | Lynne Viczko |
| (b) Office hours | Posted on office door |
| (c) Location | Dental Building – 003 |
| (d) Phone | (250) 370-3193 Alternative: . |
| (e) E-mail | viczkol @camosun.bc.ca |
| (f) Website | https://online.camosun.ca/ |

2. Course Description

a. Calendar Description (course description as written in the calendar)

This course applies learning from BIOL 260, DHYG 221 and DHYG 222 to further discussion of topics in periodontology and oral pathology. Risk factors, diagnostic indicators, healing after therapy, prognosis, referral, occlusal influences, and an introduction to chemotherapeutics are included in the study of periodontology. In the area of oral pathology, this course focuses on recognizing and describing clinical characteristics of common intraoral mucosal lesions. Etiology, significance, dental hygiene management of oral lesions and the process of differential diagnosis are also discussed.

- i) Pre-requisites: "B-" in BIOL 260, DHYG 221, DHYG 222
- ii) Co-requisites:
- iii) Pre or Co-requisites: DHYG 371

b. Course Particulars

- i) Credits: 2
- ii) Components: Class Hours: 2 / Practicum hours 0 / Lab hours 0 / Out of class hours 4.
- iii) Is the course available by distance education? No
- iv) Is prior learning available for this course? No

A weekly schedule of classes will be distributed separately. Students are expected to be prepared for class by completing the associated section in the DHYG 321 OS2 Workbook and Study Guide.

3. Required Materials

(a) Texts:

Delong L, Burkhart NW. General and Oral Pathology for the Dental Hygienist. 2nd ed, Baltimore: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2013.

Darby M, Walsh M. Dental Hygiene Theory and Practice. 3rd ed. Baltimore, Philadelphia: Saunders; 2010.

Newman MG, Takei HH, Klotter PR, Carranza FA. Carranza's Clinical Periodontology. 11th ed. St Louis: Saunders; 2012.

(b) Other:

DHYG 321 Guided Learning Workbook & Study Guide 2014 available through the Camosun College Bookstore. (required)

Optional - Langlais RP, Miller CS, Nield-Gehrig JS. Color Atlas of Common Oral Diseases. 4th ed. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2009.

Intended Learning Outcomes

| DHYG 321 Oral Science 2 - Learning Outcomes | Dental Hygiene Program (Global) Outcomes |
|--|--|
| <p>Upon successful completion of this course a student will be able to:</p> <ul style="list-style-type: none"> a) describe the main risk factors for common periodontal diseases and explain their significance in the dental hygiene process of care. b) explain healing and prognosis after periodontal therapy, and interpret dental hygiene referral guidelines for periodontal diseases. c) discuss the role of occlusal influences on the periodontal tissues. d) explain the actions, roles, and limitations of local delivery methods and chemotherapeutic products commonly used in the treatment of plaque induced gingivitis and periodontitis. e) describe the role of the dental hygienist in identifying and managing oral pathology as part of comprehensive dental hygiene care. f) recognize and describe the characteristics, etiology, significance and dental hygiene management of intraoral mucosal lesions. | <ul style="list-style-type: none"> A. Function as a professional dental hygienist in a variety of practice settings. B. Demonstrate critical thinking and use evidence based decision-making to provide optimal dental hygiene services to individuals, families and community. C. Advocate for the improvement of oral health and access to oral health services for individuals, families and community. D. Coordinate and contribute to the effective management of the practice environment to ensure quality care and services. E. Demonstrate competency as a clinician using the dental hygiene process of care. F. Educate individuals, families and community about oral health including its relationship to general health. G. Communicate and collaborate effectively with individuals, family, community and interdisciplinary teams. H. Apply health promotion principles to improve the health of individuals, families and community. |

5. Course Elements

Unit 1: Review Basic Concepts of Gingivitis and Periodontitis (Self Study)

- Recall the AAP classification system for periodontal diseases.
- Recall and apply knowledge of etiology, pathogenesis, clinical features, radiographic appearance, treatment and prognosis of plaque-induced gingivitis.
- Recall and apply knowledge of etiology, pathogenesis, clinical features, radiographic appearance, treatment and prognosis of chronic adult periodontitis.
- Recall the influence of bacteria in the development of periodontal disease and the types of bacteria involved.
- Differentiate between plaque-induced gingivitis and chronic periodontitis

Unit 2: Assessment, Diagnostic Relevance & Risk Factors for Periodontal Diseases

Learning Outcome

- a) Describe the main risk factors for common periodontal diseases and explain their significance in the dental hygiene process of care.

Performance Indicators

- Describe the value and limitations of current periodontal assessment techniques.
- Define the parameters of risk assessment for periodontal diseases
- Briefly describe the risk factors for periodontal diseases their relevance to dental hygiene care, and elaborate on the major risk factors.

Unit 3: Healing after Periodontal Therapy, Prognosis & Referral

Learning Outcome

- b) Explain healing and prognosis after periodontal therapy, and interpret dental hygiene referral guidelines for periodontal diseases.

Performance Indicators

- Discuss the rationale for periodontal therapy
- Describe factors that local and systemic factors delay and promote periodontal healing.
- Describe the processes and clinical results of different forms of healing of the periodontium after periodontal therapy
- Describe the considerations in determining the prognosis of periodontal diseases
- Describe the guidelines for referral to a periodontist

Unit 4: Occlusal Influences

Learning Outcomes

- c) Discuss the role of occlusal influences on the periodontal tissues.

Performance Indicators

- Describe the physiological adaptations of the periodontium to different types of occlusal forces.
- Describe trauma from occlusion including the characteristics and significance of acute trauma from occlusion and chronic trauma from occlusion.
- Differentiate between primary trauma from occlusion and secondary trauma from occlusion.

- Describe the different stages of periodontal response to increased or traumatic occlusal forces in the absence of plaque induced inflammation, including reversibility of lesions from occlusal force.
- Identify and discuss the effects of insufficient occlusal forces on the periodontium and excessive forces on pulp tissues.
- Describe the effects of trauma from occlusion on the initiation and progression of gingivitis and periodontitis.
- Describe the clinical and radiographic signs of trauma from occlusion.
- Discuss pathological tooth migration, describing its causes and consequences

Unit 5 - Documentation and Diagnosis of Oral Pathology

Learning Outcome

- e) Describe the role of the dental hygienist in identifying and managing oral pathology as part of comprehensive dental hygiene care.

Performance Indicators

- Describe the role of the dental hygienist in identifying and managing oral pathology as part of comprehensive dental hygiene care.
- Describe the role of the dental hygienist in identifying, diagnosing and managing oral pathology as part of comprehensive dental hygiene care.
- Apply the procedures and protocols for accurate, concise and comprehensive documentation of oral pathology.
- Describe the importance of early detection of any soft tissue abnormalities
- Differentiate between dental and dental hygiene diagnosis in relation to oral pathology.
- Briefly describe the following types of diagnoses clinical, radiographic, historical, laboratory, microscopic, therapeutic, surgical, differential and definitive diagnosis.
- Describe the process by which a definitive diagnosis is reached.
- Describe diagnostic tests for oral pathology, including procedure, advantages, limitations and uses.
- Describe the referral process for oral pathology and the role of the oral pathologist in the diagnosis of pathology.

Unit 6: Vesicular or Bullous Lesions

Learning Outcome

- f) Recognize and describe the characteristics, etiology, significance and dental hygiene management of intraoral mucosal lesions

Performance Indicators

- Explain the general histology related to the appearance of vesicular and bullous lesions in the oral region.
- Define Nikolsky's sign and its relevance to differential diagnosis of intraoral mucosal lesions.
- Describe the clinical features, etiology, prevalence, significance/implications, dental hygiene management and differential diagnosis for the following lesions/conditions that appear mainly as vesicular or bullous lesions in the oral and perioral region:
 - lesions related to trauma or inflammation including mucoceles (mucus extravasation phenomenon, retention cyst, ranula),
 - infections including herpes simplex, varicella zoster, hand foot and mouth disease, herpangina, and measles
 - autoimmune disorders including mucous membrane pemphigoid
- Access information on uncommon/rare vesiculobullous disease including pemphigus vulgaris, bullous pemphigoid, dermatitis herpetiformis and epidermolysis bullosa.

Unit 7: Ulcerative Conditions

Learning Outcome -

- f) Recognize and describe the characteristics, etiology, significance and dental hygiene management of intraoral mucosal lesions

Performance Indicators:

- Explain the general histology related to the appearance of ulcerative lesions in the oral region.
- Define diascopy and explain its application in differential diagnosis of red-blue lesions.
- Describe the clinical features, etiology, prevalence, significance/implications, dental hygiene management and differential diagnosis for the following lesions/conditions that appear mainly red or red-blue in the oral and perioral region:
 - ulcers related to various sources of trauma including necrotizing sialometaplasia.
 - infections including syphilis, gonorrhea/ sexually transmitted pharyngitis, granulomatous ulcers (tuberculosis, histoplasmosis).
 - immunologic dysfunction including clinical aphthous ulcers, Behcet's syndrome, erythema multiforme, hypersensitivity reactions, lupus erythematosus, Crohn's.
- Access information on the following more uncommon or rare diseases: leprosy, noma, Reiter's syndrome Wegener's Granulomatosis, Midline Granuloma, chronic granulomatous disease,

Unit 8: Red-Blue Lesions

Learning Outcomes for DHYG 321

- f) Recognize and describe the characteristics, etiology, significance and dental hygiene management of intraoral mucosal lesions

Performance Indicators:

- Explain the general histology related to the appearance of red or red-blue lesions in the oral region.
- Define diascopy and explain its application in differential diagnosis of red-blue lesions.
- Describe the clinical features, etiology, prevalence, significance/implications, dental hygiene management and differential diagnosis for the following lesions/conditions that appear mainly red or red- blue in the oral and perioral region:
 - lesions related to trauma or inflammation including pyogenic granuloma, peripheral giant cell granuloma, petechiae purpura and ecchymoses
 - petechiae purpura and ecchymoses related to blood disorders
 - autoimmune conditions including lichen planus
 - hypersensitivity reactions including plasma cell gingivitis
 - infections including of candidiasis (red forms), median rhomboid glossitis, angular cheilitis, and scarlet fever
 - vascular malformations and anomalies including ,venous varix, congenital hemangioma, and vascular malformations, Sturge-Weber Syndrome, Hereditary Hemorrhagic Telangiectasia (Rendu-Osler-Weber Syndrome), lymphangioma
 - manifestations related to nutritional deficiencies including vitamin B deficiency and. anemia
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- Define the erythroplakia and Kaposi's sarcoma and give a brief description of the appearance and significance of the oral lesion.

Unit 9: White Lesions

Learning Outcomes for DHYG 321

- f) Recognize and describe the characteristics, etiology, significance and dental hygiene management of intraoral mucosal lesions

Performance Indicators:

- Define the term leukoplakia explain its application in differential diagnosis of white lesions.
- Explain the general histology related to the appearance of white lesions in the oral region.
- Describe the clinical features, etiology, prevalence, significance/implications, dental hygiene management and differential diagnosis for the following lesions/conditions that appear mainly white or yellowish-white in the oral and perioral region:
 - variants of normal including leukoedema and fordyce granules
 - traumatic or inflammatory lesions including geographic tongue, frictional hyperkeratosis, linea alba, white lesions related to tobacco use, hairy tongue, chemical and mucosal burns, and dentifrice-associated slough
 - lesions from infection including candidiasis (white forms), hairy leukoplakia and parulis
 - immune system disorders including lichen planus (white forms)
 - preneoplastic or neoplastic lesions including solar cheilitis, (idiopathic) oral leukoplakia, submucous fibrosis
- Access information on the following uncommon or rare white lesions: hereditary white lesions: white sponge nevus, follicular keratosis, hereditary benign intra epithelial dyskeratosis, and lipoma

Unit 10: Use of Chemotherapeutics in Periodontal Therapy

Learning Outcome

- d) Explain the actions, roles, and limitations of local delivery methods and chemotherapeutic products commonly used in the treatment of plaque induced gingivitis and periodontitis.

Performance Indicators:

- Define terms related to oral chemotherapeutics.
- Describe the characteristics of an ideal antimicrobial for periodontal therapy.
- Describe delivery methods for oral antimicrobials, including advantages and disadvantages.
- Identify antimicrobial and anticalculus agents available for periodontal therapy and briefly describe their modes of activity and effectiveness.
- Outline indications for local delivery of antimicrobial in periodontal therapy.
- Discuss research-based evidence that supports or negates use of specific subgingival antimicrobials in treating chronic periodontitis.

6. Basis of Student Assessment (weighting)

- a. Assignments – 25% Self-evaluation assignment and a mini presentation.
- b. Exams – Midterm exam - 35% & Final exam – 40%
Written exams are a combination of multiple choice and short answers

The minimum grade for successful completion of DHYG 321 is B- or 70%.

7. Grading System

- Standard Grading System (GPA)
- Competency Based Grading System

A. GRADING SYSTEMS <http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf>

The following two grading systems are used at Camosun College

1. Standard Grading System (GPA)

| Percentage | Grade | Description | Grade Point Equivalency |
|--------------|-----------|---|-------------------------|
| 90-100 | A+ | | 9 |
| 85-89 | A | | 8 |
| 80-84 | A- | | 7 |
| 77-79 | B+ | | 6 |
| 73-76 | B | | 5 |
| 70-72 | B- | Passing grade for all DHYG courses | 4 |
| 65-69 | C+ | Minimum level has not been achieved. | 3 |
| 60-64 | C | | 2 |
| 50-59 | D | | 1 |
| 0-49 | F | | 0 |

NOTE: THE FOLLOWING TABLE IS NOT APPLICABLE FOR SCIENCE BASED COURSES SO DOES NOT NEED TO BE INCLUDED BUT SHOULD BE IN CLINICAL / EXTERNSHIP ETC TYPE OF COURSES

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

| Grade | Description |
|-------|---|
| COM | The student has met the goals, criteria, or competencies established for this course, practicum or field placement. |
| DST | The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement. |
| NC | The student has not met the goals, criteria or competencies established for this course, practicum or field placement. |

B. Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at <http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf> for information on conversion to final grades, and for additional information on student record and transcript notations.

| Temporary Grade | Description |
|-----------------|---|
| I | <i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family. |
| IP | <i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course. |
| CW | <i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement. |

8. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Student Services or the College web site at <http://www.camosun.bc.ca>. Also, refer to the resources for learning section of the DHYG student handbook.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section. Additional information regarding the dental hygiene program is in the student handbook.
<http://camosun.ca/learn/calendar/current/pdf/academic-policies.pdf>