



**CAMOSUN COLLEGE**  
**School of Health & Human Services**  
**Dental Programs**

**DHYG 322 Oral Science 3**  
**2015**

**COURSE OUTLINE**

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**1. Instructor Information**

<b>(a) Instructor</b>	Melissa Schaefer
<b>(b) Office hours</b>	Posted on office door
<b>(c) Location</b>	Dental Building – 003
<b>(d) Phone</b>	(250) 370-3193 <b>Alternative:</b> .
<b>(e) E-mail</b>	<a href="mailto:schaefer@camosun.bc.ca">schaefer@camosun.bc.ca</a>
<b>(f) Website</b>	<a href="https://online.camosun.ca/">https://online.camosun.ca/</a>

**2. Course Description**

a. Calendar Description

Building on Oral Sciences 2, students examine various gingival and periodontal diseases. Advanced diagnostic techniques, therapeutic interventions, and the role of surgical therapy are discussed. The oral pathology component continues the study of intraoral mucosal lesions, including oral cancer. Characteristics of sub mucosal and bony lesions of the orofacial region and common lesions of the face are studied.

- i) Pre-requisites: B- in DHYG 321
- ii) Co-requisites: DHYG 381

b. Course Particulars

- i) Credits: 3
- ii) Components: Class Hours: 3 / Out of class hours 6.
- iii) Is the course available by distance education? No
- iv) Is prior learning available for this course? No

**3. Required Materials**

(a) Texts:

DeLong L, Burkhardt NW. General and Oral Pathology for the Dental Hygienist. 2<sup>nd</sup> Ed, Baltimore: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2013.

Newman MG, Takei HH, Klokkevold PR, Carranza FA. Carranza's Clinical Periodontology. 11<sup>th</sup> Ed. St Louis: Saunders; 2012.

Darby M, Walsh M. Dental Hygiene Theory and Practice. 3<sup>rd</sup> Ed. Baltimore, Philadelphia: Saunders; 2010.

(b) Other:

DHYG 322 Guided Learning Workbook & Study Guide 2015 posted on D2L

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

**4. Intended Learning Outcomes**

DHYG 322 Oral Science 3 - Learning Outcomes	<i>Dental Hygiene Program (Global) Outcomes</i>
<p>Upon successful completion of this course a student will be able to:</p> <ul style="list-style-type: none"> <li>a) describe the characteristics, significance and therapeutic considerations for gingival diseases/conditions that are not plaque-induced and periodontal conditions other than chronic periodontitis.</li> <li>b) identify and explain the effects of systemic conditions/diseases in altering the characteristics, progression and therapy of periodontal diseases.</li> <li>c) discuss the chemotherapeutic actions, roles, limitations, and delivery methods of antibiotics and other current and prospective agents used in periodontal therapy and the role of various surgical therapies in the treatment of periodontal conditions.</li> <li>d) assess the relevance and limitations of current, advanced and emerging periodontal assessment or diagnostic methods for periodontal conditions.</li> <li>e) describe diagnostic methods and the referral processes for oral pathology.</li> <li>f) differentiate and describe characteristics, significance and dental hygiene management of lesions affecting mucosa, submucosa and bone of the orofacial region and the face.</li> </ul>	<ul style="list-style-type: none"> <li>A. <i>Function as a professional dental hygienist in a variety of practice settings.</i></li> <li><b>B. <i>Demonstrate critical thinking and use evidence based decision-making to provide optimal dental hygiene services to individuals, families and community.</i></b></li> <li>C. <i>Advocate for the improvement of oral health and access to oral health services for individuals, families and community.</i></li> <li>D. <i>Coordinate and contribute to the effective management of the practice environment to ensure quality care and services.</i></li> <li><b>E. <i>Demonstrate competency as a clinician using the dental hygiene process of care.</i></b></li> <li>F. <i>Educate individuals, families and community about oral health including its relationship to general health.</i></li> <li>G. <i>Communicate and collaborate effectively with individuals, family, community and interdisciplinary teams.</i></li> <li>H. <i>Apply health promotion principles to improve the health of individuals, families and community.</i></li> </ul>

## 5. Performance Indicators

### Learning Outcomes with Performance Indicators

**a) Describe the characteristics, significance and therapeutic considerations for gingival diseases/conditions that are not plaque-induced and periodontal conditions other than chronic periodontitis.**

Non-plaque related gingival conditions

- Describe etiology, epidemiology, clinical features, microbiological, histologic aspects, treatment and prognosis of drug-associated gingival hyperplasia and hereditary fibromatosis.
- Apply knowledge of clinical features of vesiculobullous lesions from DHYG 321 in describing the etiology, general clinical features, levels of severity, and management of desquamative gingival conditions.
- Discuss metabolic or endocrine condition that may affect the gingiva.

Acute Periodontal Infections: NUG; Periodontal Abscess; Pericoronitis

- Describe etiology, prevalence, clinical features, microbiology, radiographic findings, dental hygiene management and possible complications of a periodontal abscess.
- Briefly describe the clinical features, etiology, significance and treatment of pericoronitis.
- Describe the etiology, epidemiology, microbiology, histopathology, host response, clinical features, radiological findings, treatment and prognosis of necrotizing periodontal diseases (NUG, NUP).

Aggressive & Refractory Periodontitis

- Describe the parameters, etiology, epidemiology, clinical and radiographic features, risk factors, treatment and prognosis of aggressive periodontitis.
- Discuss the meaning and features of refractory and recurrent periodontitis.

**b) Identify and explain the effects of systemic conditions/diseases in altering the characteristics, progression and therapy of periodontal diseases & vice versa**

Interrelationship between Periodontal Infections & Systemic Conditions /Systemic Health: Diabetes; CVD; Premature/low birth weight

- Describe the systemic and orofacial and periodontal manifestations of diabetes mellitus.
- Explain the relationship between diabetes and periodontitis and implications for dental hygiene care
- Relate the potential connection between periodontitis and cardiovascular disease and considerations for dental hygiene management.
- Describe the potential relationship between periodontitis and increased risk of premature or low birth weight infants and implications for dental hygiene care.

Blood disorders & Periodontal Diseases

- Apply knowledge of neutrophils and their function (BIO 150, 260) to explaining neutrophil disorders and their implications for periodontal diseases.
- Discuss the etiology, epidemiology, histology, clinical features and dental hygiene considerations in the management of periodontal diseases that are related to blood disorders including leukemia, anemia, and coagulation disorders.

HIV related periodontal Diseases

- Describe the etiology, epidemiology, classification and staging of an HIV infection.
- Discuss the possible general signs, symptoms, and infections related to an HIV infection.
- Describe the oral and periodontal conditions that may be seeing in a client who is HIV positive or has AIDS.
- Discuss dental hygiene management considerations for HIV related gingivitis and periodontitis.

**c) Assess the relevance and limitations of current, advanced and emerging periodontal assessment or diagnostic methods for periodontal conditions.**

- Apply knowledge of roles and limitations of conventional periodontal assessment and diagnostic methods/ tools (from DHYG 321) to discussion of less common or developing assessment, diagnostic and monitoring methods for periodontal conditions, including their potential role and limitations.
- Describe tangible and intangible benefits and levels of clinical significance are assessing treatment outcomes of periodontal therapy.

**d) Describe discuss the chemotherapeutic actions, roles, limitations, and delivery methods of antibiotics and other current and prospective agents used in periodontal therapy and the role of various surgical therapies in the treatment of periodontal conditions.**

Chemotherapeutics

- Apply concepts regarding chemotherapeutics in periodontal therapy from DHYG 321 in describing the actions, advantages, disadvantages and indication for use of antibiotics in treating periodontal conditions.
- Describe subgingival controlled-release antimicrobial local delivery systems for use in periodontal therapy including research- based evidence that supports or negates their use efficacy in treating periodontitis.
- Discuss host modulation as a therapy for periodontal disease, including chemotherapeutics being researched and their potential role.

Surgical Phase of Periodontal Therapy

- Describe the goals, advantages, and disadvantages of periodontal surgery in the treatment of periodontal diseases.
- Describes the various types of surgical therapies and their role in the treatment of periodontal conditions.
- Describe healing after periodontal surgery and post-operative care.

**e) Assess the diagnostic methods and the referral processes for oral pathology.**

**f) Differentiate and describe characteristics, significance and dental hygiene management of lesions affecting mucosa, submucosa and bone of the orofacial region and the face.**

Verrucal-papillary lesions

- Describe the clinical features, etiology, prevalence, dental hygiene management and significance of verrucal papillary lesions to facilitate the process of differential diagnosis, including squamous papilloma, oral verruca, vulgaris, condyloma acuminatum, focal epithelial hyperplasia, papillary hyperplasia, condyloma latum, and keratoacanthoma.
- Access information on pyostomatitis vegetans and verruciform xanthoma.

Pigmented lesions

- Describe the clinical features, etiology, prevalence, dental hygiene management and significance of pigmented lesions to facilitate the process of differential diagnosis, including the following: physiologic pigmentation; pigmentation from trauma, inflammation, metal, or drugs; smoking-associated melanosis; oral melanotic macule; and disease associated melanosis.

Soft & hard tissue enlargements

- Describe the clinical features, etiology, prevalence, dental hygiene management and significance of soft tissue enlargements to enable the process of differential diagnosis, including the following: enlargements from inflammation or trauma (traumatic neuroma, fibromas, lymphoid hyperplasia); infections (mumps, bacterial sialadenitis); immune system disorders (Sjogrens); soft tissue neoplasms (neurofibroma, neurofibromatosis), neoplasms of muscle and fat); salivary gland neoplasms, genetic & congenital disorders (lymphangioma) and soft tissue cysts and malignancies (lymphoma).
- Describe the causes of hard tissue enlargements in oral and perioral tissues.

Oral Cancer

- Describe the clinical features and significance pre-malignant or malignant oral or perioral lesions that appear as ulcerations, red-blue lesions, white lesions, verrucal- papillary lesions and pigmentations.
- Identify the oral and perioral sites at greatest risk for oral cancer, the risk factors for oral cancer and the early warning signs of oral cancer to watch for.
- Describe the referral pathways for oral cancer and role and of the BC Cancer Agency in providing services for preventing and treating oral cancer.

#### Radiopaque & Radiolucent Lesions

- Describe the etiology, prevalence, clinical and radiographic features, dental hygiene management and implications of lesions appearing mainly radiopaque, including tori, exostosis, condensing osteitis, odontoma.
- Access information on rare benign tumors typically appearing mainly radiopaque.
- Describe the etiology, prevalence, clinical and radiographic features, dental hygiene management and implications of lesions appearing mainly radiolucent in the oral region, including variants of normal, traumatic or inflammatory lesions, infections, cysts, pseudocysts, benign and malignant tumors.
- Apply knowledge of various lesions to the process of differential diagnosis in recognizing, identifying and managing oral pathology.

#### Pulp Disorders & Inflammatory Jaw Lesions

- Describe common disorders of the pulp including pulpitis, including the following:
  - etiology of pulpitis and the relationship between pulpal irritants, pulpal responses; and host resistance including histological responses to inflammation of the pulp;
  - physiology of pulpal pain and types of pain as diagnostic indicators of pulpitis;
  - clinical and radiographic findings associated with acute and chronic pulpal disorders.
- Explain the sequelae of untreated pulpitis.
- Describe and differentiate among the following conditions based on clinical and radiographic symptoms: pulpitis, periapical abscesses, and acute and chronic osteomyelitis.
- Discuss internal and external tooth resorption
- Apply knowledge of various lesions to the process of differential diagnosis in recognizing, identifying and managing oral pathology.

#### Metabolic, Genetic & Neurologic

- Discuss the etiology, prevalence, clinical and radiographic features, dental hygiene management and significance conditions affecting metabolism of hard tissues of the orofacial region, including Paget's disease of bone, hyperparathyroidism, and acromegaly.
- Describe neurologic conditions that may affect the orofacial region, including burning mouth syndrome and Bell's palsy.
- Describe clinical appearance and management of various clefts of the orofacial region.
- Describe the clinical and radiographic features and significance of the following hereditary defects in teeth including: amelogenesis imperfecta, dentinogenesis imperfecta.
- Access information on rare metabolic, genetic and neurologic abnormalities.
- Apply knowledge of various lesions to the process of differential diagnosis in recognizing, identifying and managing oral pathology.

Common lesions of the Face

- Describe the etiology, prevalence, clinical characteristics and dental hygiene management of potentially premalignant or malignant lesions that may present on the face and neck, including basal cell carcinoma, squamous cell carcinoma, melanoma and actinic keratosis and cheilitis.
- Describe common benign lesions of the face and their significance.
- Describe the etiology, prevalence, clinical characteristics and dental hygiene implications of scleroderma
- Apply knowledge of various lesions to the process of differential diagnosis in recognizing, identifying and managing oral pathology.

**6. Basis of Student Assessment (weighting)**

1. Term Test #1 35%
2. Term Test #2 35%
3. Final Exam 30%

*The minimum grade for successful completion of DHYG 322 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
<b>70-72</b>	<b>B-</b>	<b>Passing grade for all DHYG courses</b>	4
65-69	C+	Minimum level has not been achieved.	3
60-64	C		2
50-59	D		1
0-49	F		0

**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>