



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

*Dental Hygiene 222*  
*Introduction to Periodontology*  
*Winter 2017*

**COURSE OUTLINE**

---

The Approved Course Description  
is available on the web @

<http://camosun.ca/learn/calendar/current/web/dhyg.html>

---

**1. Instructor Information**

(a) Instructor	Tika Brown	
(b) Office hours	Posted on door	
(c) Location	Dental Building - D003	
(d) Phone	(250) 370-3453	Alternative:
(e) E-mail	<a href="mailto:brownt@camosun.bc.ca">brownt@camosun.bc.ca</a>	
(f) Website		

**2. Course Content and Schedule**

**a. Calendar Description**

This course explores the fundamental concepts related to periodontal diseases, focusing on the etiology, risk factors, pathophysiology, clinical characteristics and therapy for plaque-induced gingival diseases and chronic periodontitis.

**b. Pre / Co-requisites:** BIOL 260, DHYG 221, DHYG 231, DHYG 280 and DHYG 281

**c. Course Information**

- i) Credits: 2.0
- ii) Class Hours: 2 hours per week x 16 weeks
- iii) Is the course available by distance education? No
- iv) Is prior learning available for this course? No

A weekly schedule of topics and exam times will be provided in the first week of class. Students are expected to be prepared for class by acquiring the needed information as directed in the DHYG 222 Guided Learning Workbook and Study Guide available on D2L.

### 3. Required Materials

#### Required Text:

- (a) Nield-Gehrig & Williams, Foundations of Periodontics for the Dental Hygienist, 4th Ed, 2015.
- (b) Optional: Carranza's Clinical Periodontology, 12<sup>th</sup> ed., Newman M.G., Takei H.H., Klokkevold, P.R., Carranza, F.A., W.B. Saunders Co., 2015.

### 4. Intended Learning Outcomes

<i>Learning Outcomes for DHYG 222</i>	<i>Program (Global) Outcomes (FYI)</i>
<p><b>By the end of this course the student will be able to:</b></p> <ul style="list-style-type: none"><li>determine the classification, etiology and risk factors for periodontal diseases.</li><li>discuss the characteristics and relevance of microorganisms and host response in relation to periodontal diseases</li><li>describe the pathophysiology, histology, clinical characteristics, and treatment of plaque-induced gingival diseases and chronic periodontitis.</li></ul>	<p>A. Practice professionally as a dental hygienist in a variety of settings.</p> <p><b>B. Demonstrate critical thinking and use evidence based decision-making to provide optimal dental hygiene services to individuals, families and community.</b></p> <p>C. Advocate for the improvement of oral health and access to oral health services for individuals, families and community.</p> <p>D. Coordinate and contribute to the effective management of the practice environment to ensure quality care and services.</p> <p>E. Demonstrate competency as a clinician using the dental hygiene process of care in a variety of settings.</p> <p>F. Educate individuals, families and community about oral health including its relationship to general health.</p> <p>G. Communicate and collaborate effectively with individuals, family, community and interdisciplinary teams.</p> <p>H. Apply health promotion principles to enhance the health of individuals, families and communities.</p>

### 5. Learning Outcomes with Performance Indicators

#### 1. Determine the classification, etiology and risk factors for periodontal diseases.

- Describe the classification of periodontal diseases
- Differentiate between acute and chronic periodontal diseases.
- Describe general similarities and differences between the two most common types of periodontal diseases, gingivitis and periodontitis.

### **Unit 2 Section A**

- Define the parameters of etiological factors of periodontal diseases and describe the importance of etiology in the dental hygiene process of care
- Explain the different terms used to categorize etiological factors in periodontal diseases
- Explain including the concept of risk factors and the use of risk assessment in dental hygiene
- Apply knowledge of the characteristics of oral biofilm and describe the role of plaque biofilm in the etiology of periodontal diseases
- Discuss past and current theories on the etiology of periodontal diseases.

## **2. Discuss the characteristics and relevance of microorganisms and host response in relation to periodontal diseases**

### **Unit 2 Section B**

- Apply knowledge of microbiology, oral flora, bacterial virulence factors, bacterial succession in and characteristics of dental biofilm from BIOL 160
- Apply understanding of the characteristics of plaque as a biofilm and its role as a risk factor in the etiology of periodontal diseases
- Recall the transition in oral ecology from health to gingivitis to periodontitis the general characteristics of the type of microorganism associated with each
- Compare the characteristics of supragingival plaque biofilm to that of subgingival.
- Identify and describe the characteristics of microorganisms currently associated with periodontitis including: *Porphyromonas gingivalis*, *Aggregatibacter actinomycetemcomitans*, *Tannerella forsythia*, *Prevotella intermedia*, *Capnocytophaga*, *Fusobacterium nucleatum*, *Spirochetes*, (*Treponemas*), *Selenomonas*, *Campylobacter recta*, and *Eikenella corrodens*
- Identify the bacteria considered primary and secondary pathogens in the etiology of periodontitis
- Identify periodontal pathogens currently associated with periodontal diseases other than plaque- induced gingivitis and chronic periodontitis (e.g. NUG, aggressive forms of periodontitis, etc.)
- Discuss the concept of beneficial oral bacterial

### **Unit 2 Section C**

- Describe the local predisposing factors associated with periodontal diseases and their role as etiological factors.
- Describe the role of systemic factors in influencing periodontal diseases and identify systemic factors considered as major risk factors in periodontal diseases
- Describe the interrelationship between local and systemic factors

### **Unit 2 Section D**

- Apply understanding of functions of the different components of the immune system to periodontal diseases.
- Apply knowledge of the general role of inflammation in the etiology of periodontal diseases
- Describe the overall role of host response in periodontal diseases.

- Describe significant inflammatory mediators involved in the host response to periodontal pathogens
- Describe the sequence of events in host response to periodontal pathogens (cellular, chemical and immunological aspects) and potential result in controlling infection

### **3. Describe the pathophysiology, histology, clinical characteristics, and treatment of plaque-induced gingival diseases and chronic periodontitis.**

#### **Unit 3 – Section A**

- Describe how/where plaque-induced gingivitis is classified in AAP classification system
- Describe the general characteristic of gingivitis when classified by course and duration.
- Summarize the general the etiology and epidemiology of gingivitis.
- Describe and compare the clinical characteristics of chronic and acute gingivitis.
- Describe the pathological and histological changes that occur in gingivitis.
- Correlate the clinical characteristics of gingivitis with the underlying histological changes and gingival assessment procedures.
- Describe the diagnosis, treatment and prognosis of plaque-induced gingivitis

#### **Unit 3 - Section B**

- Define gingival recession and describe the different perspectives on clinical presentation.
- Describe gingival recession, including etiology, risk factors, relevance prevention and treatment.
- Describe mucogingival defects and the relevance to periodontal health
- 

#### **Unit 3 - Section C**

- Identify the etiology and clinical features of chronic inflammatory gingival enlargement (including enlargement due to mouth breathing), acute inflammatory enlargement, and non-specific conditioned enlargement (pyogenic granuloma)

#### **Unit 4**

- Describe how/where chronic periodontitis is classified in the AAP classification system of periodontal diseases.
- Describe the classification, characteristics and significance of pockets associated with periodontal diseases.
- Describe the pathogenesis of periodontal pocket formation on a histological level.
- Describe the histopathology of the following areas of a periodontal pocket: the soft tissue (inner wall), the root surface wall, contents of periodontal pockets.
- Briefly describe, compare and contrast early concepts and current concepts of disease activity (progression), including patterns of exacerbation and remission.
- Correlate the clinical findings in chronic periodontitis with the histological features.
- Describe the histological changes and pathologic processes that occur in alveolar bone in chronic periodontitis.
- Describe the radiographic changes seen in chronic periodontitis.
- Describe chronic periodontitis clinically.
- Describe the treatment and prognosis of chronic periodontitis.
- Describe the major risk factors for developing periodontitis

## 6. Basis of Student Assessment (weighting)

- Term Test 1.....35%
- Term Test 2.....25%
- Final exam.....40%

*The minimum grade for successful completion of DHYG 222 is B- or 70%.*

## 7. Grading System

Standard Grading System (GPA)

Competency Based Grading System

### A. GRADING SYSTEMS <http://www.camosun.bc.ca/policies/policies.php>

This course applies the standard grading system 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 DHYG 222 (70%)</b>	<b>4</b>
65-69	C+	Minimum level has not been achieved.	3
60-64	C		2
50-59	D		1
0-49	F		0

## 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://www.camosun.bc.ca/policies/policies.html>