



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

*Dental Hygiene 120 Dental Anatomy*  
*Fall 2008*

## **COURSE OUTLINE**

---

**The Approved Course**

Description is available on the web @ <http://www.camosun.bc.ca/calendar/current/web/dhyg.html#DHYG120>

---

### **1. Instructor Information**

- (a) Instructor Bev Jackson
- (b) Office hours \_\_\_\_\_
- (c) Location Dental Building - 004
- (d) Phone (250) 370-3507      **Alternative:** (250) 478-4130
- (e) E-mail jacksonb@camosun.bc.ca
- (f) Website \_\_\_\_\_

### **2. Intended Learning Outcomes**

**By the end of this course you will know and be able to:**

- use dental and anatomical terms to describe dental anatomy and positions of teeth in order to provide accurate documentation
  - describe features of tooth crown and root anatomy and morphology that relates to the identification and differentiation of permanent and primary teeth
  - describe normal eruption sequence and general patterns of development for primary and permanent teeth as a foundation for clinical dental hygiene
  - describe terms associated with dental occlusion and identify occlusal relationships using clinical descriptions
  - identify variations from normal in relation to dental anatomy and morphology and occlusal relationships in order to have a good understanding of function as it applies to client care
  - discuss features of tooth crown and/or root morphology that may affect the provision of dental hygiene care
-

## CRITICAL ELEMENTS

1. **Use dental and anatomical terms to describe dental anatomy and positions of teeth in order to provide accurate documentation.**
  - Define terms pertaining to primary and permanent dentitions.
  - Describe basic features of the four types of teeth in the permanent dentition, including their function.
  - Discuss the arrangement of teeth identifying positions of arches, quadrants, and sextants of the oral cavity.
  - Describe anatomical terms used to describe tooth surfaces, horizontal and vertical divisions of teeth, line angles and point angles.
  - Discuss numbering systems using the International, Universal and Palmer systems
  - Describe the number and position of roots on all teeth.
  - Describe curvatures of crown anatomy in the dental arches.
  - Describe proximal contacts and embrasure spaces
  - Describe the effect on gingival health of pronounced or inadequate curvatures of teeth and widened or narrow embrasures.
  
2. **Discuss features of tooth crown and root anatomy and morphology that relate to the identification and differentiation of permanent and primary teeth.**
  - Discuss development of primary and secondary grooves on each tooth crown type (lobe formation)
  - Identify and describe normal and abnormal features of each permanent tooth crown
  - Discuss general characteristics of each type of tooth root (incisors, canines, premolars, and molars)
  - Discuss features that differentiate permanent tooth crowns of the same type.
  - Explain the anatomical differences between primary and permanent teeth
  - Discuss eruption pattern of permanent teeth
  - Discuss eruption pattern of deciduous teeth.
  - Describe specific anatomical features of each deciduous tooth crown.
  - Explain the importance of deciduous teeth.
  - Discuss characteristics of each permanent tooth root describing longitudinal and cross-sectional views
  - Describe common variations or abnormal features of each tooth root
  - Identify differences between tooth roots of the same type
  - Describe anatomical features of deciduous roots and compare with permanent counterparts.
  - Identify permanent teeth in a laboratory or clinical setting

- 3. Discuss features of tooth crown morphology, which may affect the provision of dental hygiene care.**
- Describe features of crown morphology that may affect dental hygiene care.
  - Discuss the implications for preventive self-care of pronounced or abnormal crown anatomy and malpositioned teeth.
  - Identify crown and root anatomy that may negatively influence the health of the periodontium and discuss preventive measures (if any)
  - Discuss crown to root proportions in relation to the prognosis of periodontal disease.
  - Describe the features of tooth root morphology in a healthy dentition and identify factors that may affect dental hygiene care.
  - Discuss the implications for self care of normal and abnormal root anatomy (recession and mal-alignment) for effective root instrumentation.
- 4. Describe terms associated with dental occlusion and identify occlusal relationships using clinical descriptions.**
- Define centric (static) relation, centric (static) occlusion, ideal occlusion, functional occlusion, open bite, overbite and overjet.
  - Describe anatomical, dental and oro-facial characteristics of Angle's Class I, II (including Divisions 1 and 2) and III occlusion and malocclusion.
  - Describe basic tooth relationships during centric (static) occlusion.
  - Describe normal ranges of overbite and overjet.
  - Describe common abnormalities that may be found within each classification (e.g. unilateral unbalanced occlusion).
  - Describe normal occlusal relationships during guided movement of the mandible.
  - Describe movement of the mandible during chewing.
  - Describe tooth contact during chewing.
  - Explain factors associated with the development of malocclusions.
  - Describe bone and tooth position associated with crossbites.
  - Describe premature contact of teeth during occlusion.
  - Define primary and secondary occlusal trauma.
  - Explain etiologic factors that may contribute to occlusal trauma.
  - Describe occlusal stresses and the clinical effects of occlusal trauma.
- 5. Identify (on a skull, anatomical model, dentoforms, teeth or diagrams) anatomical features and landmarks of the teeth and related occlusal relationships.**

### 3. Required Materials

(a) **Required Text:**

Bath-Balogh, M. & Fehrenbach, M. (2006). *Illustrated dental embryology, histology, and anatomy*. (2<sup>nd</sup> Ed.) St Louis: Elsevier/Saunders.

**Required Manual:** Dental Anatomy (DHYG 120) manual available from the bookstore.

- (b) **Other equipment / materials required:** Kilgore International Inc., Dental Study Model – Permanent Teeth with Anatomical Roots. Models are purchased as part of the DH instrument kit. Additional, loose teeth may be available from students in the second year of the DH program or may be leased from instructor. *Note:* To be discussed the first week of class.

### 4. Course Content and Schedule

Class hours will consist of two consecutive 50-minute periods held 1 time per week. Dates for term and final exams, lecture and lab information will also be provided in the first week of class. Students are expected to be prepared for class by reading text chapters and completing related manual notes.

### 5. Basis of Student Assessment (Weighting)

- (a) Assignments - 1 micro assignment 10%
- (b) Exams (midterm and final) 45% each; to be discussed the first week of class
- (c) Other (i.e., Project, Attendance, Group Work)

### 6. Grading System

*(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)*

*(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)*

Standard Grading System (GPA)

Competency Based Grading System

## 7. 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>

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

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

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-		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://www.camosun.bc.ca/policies/E-1.5.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.