

WEST LOS ANGELES COLLEGE
DEPARTMENT OF DENTAL HYGIENE

- I. DH 104: (section #7026) DENTAL MORPHOLOGY
- II. PREPARED BY: Lisa Kamibayashi R.D.H., M.S.D.H.
- III. REVISED FOR: FALL 2013
- IV. PREREQUISITES: ENROLLMENT IN THE DENTAL HYGIENE PROGRAM.
- V. UNITS AND HOURS: TWO UNITS, TWO HOURS LECTURE/LAB per week
Every Tuesday at 10:20 to 12:30 for 15 weeks
- VI. COURSE INSTRUCTOR: Lisa Kamibayashi R.D.H., M.S.D.H.
Mrs.kamiba@gmail.com
Office hours: Monday 10:00 to 12:00 or by appointment
- VII. COURSE DESCRIPTION:
Through lecture and demonstration, the morphological characteristics of the teeth are presented. Emphasis is on comparative crown and root anatomy and features of morphology and occlusion, which relate to the health of the periodontium.
- VIII. REQUIRED TEXT:
Bath-Balogh and Fehrenbach, Illustrated Dental Embryology, Histology and Anatomy, Third Edition, Elsevier Saunders, St. Louis Missouri, 2011 ISBN # 978-1-4377-1730-3

Bath-Balogh and Fehrenbach, Student Workbook for Illustrated Dental Embryology, Histology and Anatomy, Third Edition, Elsevier Saunders, St. Louis Missouri, 2011 ISBN # 978-1-4377-2510-0

Institutional Student Learning Outcomes

A. Critical thinking: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences.

Assessment: Identification of extracted teeth. Case study to analyze and problem solve the issue using dental anatomy knowledge.

Program Competencies Addressed:

12. Apply problem solving strategies and critical thinking to insure comprehensive oral health care for individuals, groups, and communities.

Course SLO	Criterion Level
1. identify the general characteristics of tooth morphology and the development process behind these structures as well as their clinical function.	At least 80% of students will complete their clay sculpturing and correctly identify and complete at least 75% of the rubric components on this SLO.
2. apply dental morphology concepts to analyze and problem solve a case study.	At least 80% of the students will achieve 75% of the points or more on this course SLO.
3. understand dental morphology and apply problem solving strategies and critical thinking to insure comprehensive oral health care for individuals, groups and communities.	At least 80% of students will correctly answer 75% or more of the exam questions.

X. COURSE GOAL:

At the end of the course, the student will be able to make appropriate clinical applications of dental morphology and occlusion, including use of correct terminology, accurate tooth identification, recognition of common variations, knowledge of arch form relationships, and understanding the features of dental morphology which contribute to the health of the periodontium.

COURSE OBJECTIVES

Through knowledge gained in lectures, reading assignments, and examination of extracted teeth and study models the student will be able to:

1. Define and accurately use terminology including:
 - A. Tooth Surfaces
 - B. Height of contour
 - C. Line and point angles
 - D. Embrasures
 - E. Cusp and marginal ridges
 - F. Grooves and fossae
 - G. Cementoenamel junction
2. Accurately use the universal numbering system and the Palmer notation for both permanent and primary teeth and be aware of the FDI system.
3. Explain a dental formula and give the dental formula for the permanent and primary dentitions.
4. Distinguish between the primary, mixed and permanent dentition periods.
5. Know the approximate timing for the eruption of the first primary teeth, completion of the primary dentition, eruption of the first permanent teeth, and end of the mixed dentition period.
6. Describe the function(s) and general features of each class of tooth in the permanent dentition:
 - A. Incisors
 - B. Canines
 - C. Premolars
 - D. Molars
7. Describe arch and trait differences between each tooth in the permanent dentition.
8. Describe external root anatomy including grooves and furcations for each tooth in the permanent dentition.
9. Know how many root canals are commonly in the roots of each permanent tooth.
10. Identify permanent teeth on the basis of diagrams, extracted specimens, or study models.
11. Identify general differences between the primary and permanent teeth.
12. Describe general features of each tooth in the primary dentition
13. Be able to explain the importance of maintaining the health of the primary dentition terms a parent could understand.
14. List the requirements for stable and esthetic arch form relationships
15. Define intercuspal position and describe the requirements for ICP stability.
16. Describe relationships between the maxillary and mandibular arches in terms of orthodontic classification.
17. Identify the following orthodontic variables on study models:
 - A. Angle class
 - B. Overbite
 - C. Overjet
18. Recognize the following common dental anomalies and describe the clinical presentation:
 - A. Partial anodontia
 - B. Supernumerary teeth
 - C. Shape variations
19. Distinguish attrition, abrasion, and erosion by etiology and clinical presentation.
20. Understand how the following features of dental anatomy and occlusion relate to the health of the periodontium:
 - A. Crown contours
 - B. Proximal contacts
 - C. Embrasure form
 - D. Marginal ridges
 - E. Intercuspal position
 - F. Arch Form

XI. METHODS OF INSTRUCTION:

Lecture, Drawings, Demonstration, Discussion, Scripturing

XII. METHODS OF EVALUATION:

Attendance is required. Written exams will be given at regular intervals and will include matching, multiple choice, identification, and short answer type questions.

Midterm Exam	30 %
Final Exam (Cumulative)	40%
Tooth sculpturing project	20 %
Workbook Assignment	10 %

COURSE LETTER GRADE WILL BE BASED ON THE FOLLOWING SCALE:

90 - 100% = A
80 - 89% = B
70 - 79% = C
60 - 69% = D
Below 59% = F

Please bring following items to class every week.

1. Pencil
2. Eraser
3. Ruler
4. Textbook
5. Workbook
6. Typodont
7. Full model teeth
8. Polymer Clay (Sculpey III is the best product. Light color Gray and Baige are good.)
9. Polymer Clay tool kit (optional)

XIII. COURSE CONTENT OUTLINE
DH 104 DENTAL MORPHOLOGY
 COURSE SCHEDULE - FALL 2013

<u>SESSION</u>	<u>LECTURE TOPIC</u>	<u>ASSIGNED READINGS HOME WORK</u>
1. 8/27	Introduction and Nomenclature	Chapter 15
2. 9/3	Tooth Anatomy: Enamel, dentin, pulp	Chapter 12 & 13
3. 9/10	Occlusion & Arch Form Relationships	Chapter 20
4. 9/17	How to draw a tooth Central Incisors	Chapter 16
5. 9/24	Lateral Incisors Canines Draw lateral incisor & canines	Chapter 16
6. 10/1	Premolars Draw premolars	Chapter 17
7. 10/8	First molars Draw first molars	Chapter 17
8. 10/15	Second molars & Third molars Draw second molars	Chapter 17
9. 10/22	Midterm Exam	
10. 10/29	Review exam Tooth Sculpturing Project Instruction	
11. 11/5	Primary Dentition Eruption sequence	Chapter 18
12. 11/12	Root Anatomy	Handout
13. 11/19	Protection of the Periodontium	
14. 11/26	Variations in Dental Anatomy	Chapter 6
15. 12/3	Study Model and Tooth Identification Workshop	Tooth sculpture due
16. TBA	Final Examination	