

**DH 70 Course Outline as of Fall 2019****CATALOG INFORMATION**

Dept and Nbr: DH 70

Title: DENT ANAT &amp; TOOTH MORPH

Full Title: Dental Anatomy and Tooth Morphology

Last Reviewed: 9/11/2023

| Units   |      | Course Hours per Week |      | Nbr of Weeks | Course Hours Total |       |
|---------|------|-----------------------|------|--------------|--------------------|-------|
| Maximum | 2.50 | Lecture Scheduled     | 2.00 | 17.5         | Lecture Scheduled  | 35.00 |
| Minimum | 2.50 | Lab Scheduled         | 2.00 | 17.5         | Lab Scheduled      | 35.00 |
|         |      | Contact DHR           | 0    |              | Contact DHR        | 0     |
|         |      | Contact Total         | 4.00 |              | Contact Total      | 70.00 |
|         |      | Non-contact DHR       | 0    |              | Non-contact DHR    | 0     |

Total Out of Class Hours: 70.00

Total Student Learning Hours: 140.00

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

**Catalog Description:**

The study of the dental terminology, tooth morphology, structures of the oral cavity, classification of cavities, and charting conditions of the teeth. Aspects related to dental hygiene care such as root morphology, restorative charting, occlusion, and dental anomalies are emphasized.

**Prerequisites/Corequisites:**

Concurrent Enrollment in DH 71A

**Recommended Preparation:****Limits on Enrollment:**

Acceptance to the Allied Dental Programs

**Schedule of Classes Information:**

Description: The study of the dental terminology, tooth morphology, structures of the oral cavity, classification of cavities, and charting conditions of the teeth. Aspects related to dental hygiene care such as root morphology, restorative charting, occlusion, and dental anomalies are emphasized. (Grade Only)

Prerequisites/Corequisites: Concurrent Enrollment in DH 71A

Recommended:

Limits on Enrollment: Acceptance to the Allied Dental Programs

Transfer Credit: CSU;

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

|                      |                      |                      |           |
|----------------------|----------------------|----------------------|-----------|
| <b>AS Degree:</b>    | <b>Area</b>          | Effective:           | Inactive: |
| <b>CSU GE:</b>       | <b>Transfer Area</b> | Effective:           | Inactive: |
| <b>IGETC:</b>        | <b>Transfer Area</b> | Effective:           | Inactive: |
| <b>CSU Transfer:</b> | Transferable         | Effective: Fall 1999 | Inactive: |
| <b>UC Transfer:</b>  |                      | Effective:           | Inactive: |

**CID:**

**Certificate/Major Applicable:**

Major Applicable Course

## **COURSE CONTENT**

### **Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Apply knowledge pertaining to the permanent and primary dentition, tissues of the teeth, dental anomalies, and descriptive terminology to the clinical practice of dental hygiene.
2. Use the knowledge of anatomy and morphology during instrumentation.

### **Objectives:**

At the conclusion of this course, the student should be able to:

1. Name, describe and locate the anatomy of permanent and primary dentition.
2. Identify and explain the morphologic differences between the primary and permanent dentition.
3. List the eruption and exfoliation sequence of primary dentition and the eruption sequence of permanent dentition.
4. Define the descriptive terminology as related to the maxillary/mandibular arches, teeth, and related structures.
5. Differentiate anomalies of both permanent and primary dentition.
6. Demonstrate the Universal, International Standard Organization (ISO) and Palmer systems of tooth identification.
7. Discuss how root anatomy and morphology determine instrumentation techniques.
8. Describe the classification of occlusion and recognize early signs of deviation in deciduous, mixed, and permanent dentitions.
9. Identify the regions of the oral cavity proper, and the head and neck.
10. Discuss the relationship of periodontal diseases and the support structures.
11. Analyze and respond to the types of concerns that a parent might ask a dental health professional regarding the importance and function of primary teeth.
12. Chart existing restorations, unsound dentition, missing teeth, impacted teeth and dental anomalies and conditions.
13. Discuss the clinical implications of anomalies, malocclusion, restorations, and oral habits on

the dentition.

14. Perform an extra and intraoral exam using correct palpation techniques.

15. Chart existing restorations, occlusion, and conditions of the oral cavity.

## **Topics and Scope:**

### **I. Overview of Dentition\***

- A. Tooth types and functions
- B. Tooth tissues
- C. Tooth surfaces
- D. Two types of dentition
- E. Three stages of dentition
- F. Arrangement in the dental arches
- G. Divisions of the dental arches
- H. Fundamental and preventive curvatures

### **II. Tooth Numbering Systems\***

- A. Universal
- B. International Standard Organization (ISO)
- C. Palmer

### **III. Support Structures\***

- A. Tissues
- B. Function
- C. Clinical considerations
- D. Attachment apparatus
- E. Periodontal diseases

### **IV. Development, Eruption and Exfoliation\***

- A. Primary dentition
- B. Permanent dentition

### **V. Tooth Anatomy and Identification**

- A. Primary teeth\*
- B. Permanent

### **VI. Occlusion\***

- A. Angle's Classifications of Malocclusion
- B. Primary occlusion
- C. Terminology
- D. Periodontal considerations associated with occlusal trauma

### **VII. Dental Anomalies**

- A. Intrinsic and extrinsic factors
- B. Developmental, hereditary, and congenital
- C. Types of anomalies

### **VIII. Dental Charting\***

- A. Black's Classification of Caries
- B. Common abbreviations
- C. Recognition of restorations and dental materials
- D. Charting symbols
- E. Caries and risk assessment
- F. Dental charting form

### **IX. Extra and Intraoral Exam\***

- A. Identification of structures
- B. Palpation techniques
- C. Assessment methods

### **X. Clinical Considerations\***

- A. Prevention
- B. Root anatomy
- C. Tooth morphology
- D. Malocclusion
- E. Oral habits
- F. Instrumentation techniques
- G. Restorations
- H. Occlusion

\*These items are introduced in lecture, and the related skill is performed in the lab.

## XI. Laboratory Exercises

- A. Skill demonstrations
  1. Extra and intraoral exam
  2. Recognition of oral cavity structures
  3. Recognition of Angel's' Classification of Malocclusion types and terminology: overjet, overbite, cross bite, labioverted, linguoverted
  4. Demonstration of three different types of tooth numbering systems
  5. Recognition of tooth types, functions, stages of dentition, primary and permanent dentition, fundamental and preventive curvatures, and anatomical features
  6. Recognition of Black's Classification of Caries
  7. Exfoliation and eruption dates
- B. Problem Solving Exercises
  1. Tooth identification including root anatomy to facilitate instrumentation techniques and instrument choice
  2. Oral cavity and anatomical landmark identification to adequately perform extra and intraoral exam
  3. Identification of age determined by eruption and exfoliation dates
  4. Charting existing restorations, occlusion to perform patient assessment

## Assignment:

### Lecture

1. Reading assignments, (10-20) pages per week
2. Homework assignments; Student Workbook assignments, teeth drawings (4-8)
3. Quizzes (4-8), midterm, final

### Laboratory

1. Evaluations (6-10)
  - a. Skill demonstrations; extra and intraoral exam
  - b. Problem solving; teeth anatomical features and identifications, oral cavity and facial landmarks, identifications of restorations, occlusion, eruption and exfoliation sequence
2. Homework-charting assignments (4-6)
3. Midterm and final

## Methods of Evaluation/Basis of Grade:

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None, This is a degree applicable course but assessment tools based on writing are not included because skill demonstrations are more appropriate for this course.

Writing  
0 - 0%

**Problem Solving:** Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Teeth anatomical features and identification, oral cavity and facial landmarks, identification of restorations, occlusion, eruption and exfoliation sequences.

Problem solving  
30 - 40%

**Skill Demonstrations:** All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Extra and intraoral exam, charting assignments, teeth drawings.

Skill Demonstrations  
10 - 20%

**Exams:** All forms of formal testing, other than skill performance exams.

Quizzes, written and laboratory midterm, written and laboratory final.

Exams  
40 - 50%

**Other:** Includes any assessment tools that do not logically fit into the above categories.

None

Other Category  
0 - 0%

### Representative Textbooks and Materials:

Torres and Ehrlich Modern Dental Assisting, 12th ed. Bird, Doni and Robinson, Debbie. Elsevier. 2018

Illustrated Dental Embryology, Histology, and Anatomy. 4th ed. Fehrenbach, Margaret and Popowics, Tracy. Elsevier. 2016

Illustrated Dental Embryology, Histology, and Anatomy (Student Workbook). 4th ed. Fehrenbach, Margaret and Popowics, Tracy. Elsevier. 2016