

**DA 60 Course Outline as of Fall 2025****CATALOG INFORMATION**

Dept and Nbr: DA 60 Title: APPLIED DENTAL SCIENCE  
 Full Title: Applied Dental Science  
 Last Reviewed: 9/23/2024

Units	Course Hours per Week		Nbr of Weeks		Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	8	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00

Total Student Learning Hours: 157.50

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: DE 52

**Catalog Description:**

The student will learn dental terminology, extraoral/intraoral anatomy and landmarks, physiology, tooth morphology, oral embryology, dental histology, dentitions, tooth numbering systems, classification of occlusion and caries, and the documentation of oral conditions. The content of this course will be taught through a combined lecture and laboratory experience.

**Prerequisites/Corequisites:**

Course Completion or Current Enrollment in DE 51

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

Acceptance into an Allied Dental Program

**Schedule of Classes Information:**

Description: The student will learn dental terminology, extraoral/intraoral anatomy and

landmarks, physiology, tooth morphology, oral embryology, dental histology, dentitions, tooth numbering systems, classification of occlusion and caries, and the documentation of oral conditions. The content of this course will be taught through a combined lecture and laboratory experience.

(Grade Only)

Prerequisites/Corequisites: Course Completion or Current Enrollment in DE 51

Recommended:

Limits on Enrollment: Acceptance into an Allied Dental Program

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 1997	Inactive:
<b>UC Transfer:</b>		Effective:	Inactive:

**CID:**

**Certificate/Major Applicable:**

Certificate Applicable Course

### **COURSE CONTENT**

#### **Student Learning Outcomes:**

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

1. Utilize anatomical terms to describe and identify dental anatomy and physiology, tooth morphology, structures of the oral cavity, and regions of the head and neck.
2. Integrate the knowledge of dental anatomy, tooth morphology, primary and permanent dentition and oral cavity structure into clinical practice.

#### **Objectives:**

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

1. Describe the embryological development of the teeth, face, and oral cavity.
2. Classify the bones and major anatomic landmarks of the skull.
3. Describe the histology of bone in terms of cartilage, compact bone, spongy bone and the periosteum.
4. List the structures and describe the action of the temporomandibular joint (TMJ).
5. Name the four pairs of paranasal sinuses and correlate their function and physiology to dental maladies.
6. Locate and describe the function of the salivary glands.
7. Identify and differentiate the major anatomic landmarks of the oral cavity.
8. Locate and describe the different oral tissues.

9. Describe and assess the characteristics of normal gingival tissue.
10. Identify and discuss developmental abnormalities.
11. Identify and differentiate the four types of teeth and describe their design, function, and landmarks of each type.
12. Compare and examine the dental arches.
13. Utilize the three tooth numbering systems and cavity classifications to document existing restorations, dental caries, missing teeth and dental anomalies.
14. Compare the primary and permanent dentition in terms of size, shape and number.
15. Perform periodontal documentation and charting oral conditions.
16. Describe the structural units of the human body and their importance in dentistry.
17. Differentiate between the three dentition periods.
18. Classify a patient's occlusion according to Angle's Classification of Malocclusion.
19. Identify tooth eruption and exfoliation sequences.
20. List various human body systems and describe how oral health is connected to systemic health.

## **Topics and Scope:**

### **I. Primary and Permanent Dentition**

- A. Eruption\*
- B. Exfoliation\*
- C. Tooth numbering\*
- D. Parts of the tooth\*
- E. Functions\*

### **II. Dental Tissues**

- A. Properties
- B. Maturation
- C. Histologic features
- D. Age changes\*
- E. Periodontal fiber groups
- F. Clinical considerations\*

### **III. Anterior Teeth**

- A. Anatomy\*
- B. Morphology\*
- C. Anomalies\*

### **IV. Posterior Teeth**

- A. Anatomy\*
- B. Morphology\*
- C. Anomalies \*

### **V. Primary Teeth**

- A. Anatomy\*
- B. Morphology\*
- C. Anomalies

### **VI. Dental Documentation**

- A. Black's cavity classifications\*
- B. Periodontal charting\*
- C. Documenting and photographing oral conditions\*
- D. Symbols and abbreviations\*

### **VII. Occlusion**

- A. Malocclusion classification\*
- B. Habits and skeletal considerations\*

### **VIII. Intraoral Structures**

- A. Basic tissues\*
  - B. Boundaries of the oral cavity\*
  - C. Terminology\*
  - D. Landmark identification\*
  - E. Proper selection of application sites for topical anesthetic\*
- IX. Extraoral Structures
- A. Spatial orientation\*
  - B. Facial and cranial bones\*
  - C. Nose and paranasal sinuses\*
  - D. Landmark identification\*
- X. Dental Anatomy and Physiology
- A. Body planes and anatomic directional terminology\*
  - B. Body systems
  - C. Bones of the skull\*
  - D. Muscles of the head and neck\*
  - E. Major salivary glands
  - F. Cranial nerves\*

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

#### XI. Laboratory Evaluations

- A. Teeth drawings
- B. Intraoral and extraoral exam
- C. Identify anatomical landmarks of the face and neck
- D. Identify primary and permanent dentition using the three numbering systems
- E. List eruption and exfoliation dates of the primary dentition and eruption dates of the permanent dentition
- F. Document restorations using Black's Classification and appropriate symbols
- G. Identify Angle's Classifications of malocclusion
- H. Identify the bones, muscles, salivary glands, cranial nerves, and other major landmarks of the skull
- I. Perform periodontal and restorative documentation
- J. Use an intraoral camera to digitally document existing restorations and oral conditions
- K. Identify teeth using the three tooth numbering systems
- L. Locate morphological structures of primary and permanent dentitions

#### **Assignment:**

##### Lecture-Related Assignments:

1. Reading assignments in reference texts (15-30 pages per week)
2. Quizzes (8-10)
3. Written midterm and final

##### Lab-Related Assignments:

1. Identification of tooth morphology on a stone model
2. Identification of tooth morphology in the mouth
3. Tooth drawings of permanent and deciduous teeth
4. Mixed dentition eruption and exfoliation using models
5. Identify landmarks of the face
6. Identify landmarks of the oral cavity
7. Intraoral and extraoral examination on a peer
8. Evaluate and electronically document 2-4 peers for existing restorations, periodontal and

conditions

9. Lab midterm and lab 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.

None

Problem solving  
0 - 0%

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

Clinical application of documentation skills, identification of tooth morphology, landmarks of the face and oral cavity, tooth drawings, intraoral and extraoral exams

Skill Demonstrations  
40 - 60%

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

Quizzes, written midterm and final exams, lab midterm and final exams

Exams  
40 - 60%

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

None

Other Category  
0 - 0%

**Representative Textbooks and Materials:**

Modern Dental Assisting. 14th ed. Robinson, Debbie. Elsevier. 2023.  
Instructor prepared materials