

**DA 60 Course Outline as of Fall 2019****CATALOG INFORMATION**

Dept and Nbr: DA 60

Title: APPLIED DENTAL SCIENCE

Full Title: Applied Dental Science

Last Reviewed: 2/25/2019

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.00	Lecture Scheduled	1.00	17.5	Lecture Scheduled	17.50
Minimum	2.00	Lab Scheduled	3.00	8	Lab Scheduled	52.50
		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: 35.00

Total Student Learning Hours: 105.00

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: DE 52

**Catalog Description:**

The study of dental terminology, basic anatomy of the oral cavity, dental anatomy and physiology, tooth morphology, classifications of cavities and documenting conditions of the teeth. The content of this course will be taught through a combined lecture and laboratory experience. Emphasis is placed on intraoral and extraoral landmarks, restorative documentation and tooth morphology.

**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 study of dental terminology, basic anatomy of the oral cavity, dental anatomy and physiology, tooth morphology, classifications of cavities and documenting conditions of the teeth. The content of this course will be taught through a combined lecture and laboratory experience. Emphasis is placed on intraoral and extraoral landmarks, restorative documentation

and tooth morphology. (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 dental anatomy and physiology, tooth morphology, structure 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 4 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.

## **Topics and Scope:**

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

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

### **II. Dental Tissues**

- A. Properties
- B. Maturation
- C. Microscopic features
- D. Age changes\*
- E. Fiber groups
- F. Clinical considerations\*

### **III. Anterior Teeth**

- A. Anatomy\*
- B. Root morphology\*
- C. Anomalies\*

### **IV. Posterior Teeth**

- A. Anatomy\*
- B. Root morphology\*
- C. Anomalies \*

### **V. Primary Teeth**

- A. Anatomy\*
- B. Anomalies\*
- C. Root morphology\*

### **VI. Dental Documentation**

- A. Black's cavity classifications\*
- B. Symbols and abbreviations\*

### **VII. Occlusion**

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

### **VIII. Intraoral Structures**

- A. Basic tissues\*
- B. Boundaries of oral cavity\*
- C. Terminology\*
- D. Landmark identification\*
- E. Proper selection of topical application sites\*

### **IX. Extraoral Structures**

- A. Spatio orientation\*
- B. Facial and cranial bones\*
- C. Nose and paranasal sinuses\*
- D. Landmark identification\*

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

### **Laboratory Competencies**

- 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 and major landmarks of the skull
- I. Perform periodontal documentation

### Assignment:

#### Lecture Related Assignments:

1. Reading assignments in reference texts (10-20 pages per week)
2. Quizzes (8-9)
3. Written mid-term 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. Document 4-8 student peers (existing restorations, periodontal and conditions) by hand
9. Document 2-5 student peers using the computer
10. 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, extra and intraoral exam

Skill Demonstrations  
40 - 60%

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

Quizzes, lab midterm and lab final and written midterm and written 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. 12th ed. Bird, Doni and Robinson, Debbie. Elsevier. 2018  
Instructor prepared materials