

DH 74 Course Outline as of Fall 2017**CATALOG INFORMATION**

Dept and Nbr: DH 74

Title: HEAD,NECK,ANT,HISTO,EMBR

Full Title: Head and Neck Anatomy, Histology and Embryology

Last Reviewed: 10/10/2022

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	17.5	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:

Catalog Description:

This course emphasizes the structures of the head and neck. Specific focus will be placed on knowledge necessary for clinical application. The histology and embryology components of the course deliver the foundation of knowledge necessary to understand pathology and developmental disturbances encountered in dentistry.

Prerequisites/Corequisites:

Course Completion of DH 70

Recommended Preparation:**Limits on Enrollment:**

Acceptance to Allied Dental Program

Schedule of Classes Information:

Description: This course emphasizes the structures of the head and neck. Specific focus will be placed on knowledge necessary for clinical application. The histology and embryology components of the course deliver the foundation of knowledge necessary to understand pathology and developmental disturbances encountered in dentistry. (Grade Only)

Prerequisites/Corequisites: Course Completion of DH 70

Recommended:

Limits on Enrollment: Acceptance to Allied Dental Program

Transfer Credit: CSU;

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

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:

IGETC:	Transfer Area	Effective:	Inactive:
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CSU Transfer:	Transferable	Effective:	Spring 2000	Inactive:
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UC Transfer:		Effective:		Inactive:
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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. Integrate an understanding of development, structures, systems, and anatomy of the head and neck into clinical dental hygiene practice.
2. Differentiate between the normal and abnormal/pathologic when conducting a physical examination of the patient's head and neck structures.

Objectives:

Students will be able to:

1. Describe the process of embryologic and prenatal development of the orofacial structures and the clinical considerations due to developmental disturbances within these periods.
2. Discuss the stages of tooth development including eruption and exfoliation patterns and the clinical considerations due to developmental disturbances.
3. Discuss the histological features of basic tissues; epithelium, connective tissue, nerve tissue, and muscle tissue.
4. Discuss the histological features, development, and properties of the enamel, dentin, pulp, cementum, alveolar process, and periodontal ligament.
5. Identify the types of oral mucosa, discuss the regional differences, and integrate this knowledge into patient care.
6. Identify and describe the skeletal, lymphatic, vascular, nervous, and the muscular systems associated with the head and neck region.
7. Identify and describe the function of the glands associated with the head and neck.
8. Describe the anatomy, movements and associated muscles and ligaments of the temporomandibular joint.
9. Accurately identify and use the anatomical landmarks needed for successful local anesthesia.
10. Apply knowledge of head and neck structures to extraoral and intraoral examination in clinical hygiene courses.
11. Differentiate between normal and abnormal/pathological findings on dental radiographs.

Topics and Scope:

I. Orofacial Structures*

- A. Face and neck region
- B. Oral cavity and pharynx

II. Dental Embryology*

- A. Prenatal development
- B. Face and neck development
- C. Orofacial development
- D. Tooth development and eruption

III. Dental Histology

- A. Cells
- B. Basic tissue
- C. Oral mucosa
- D. Enamel, dentin, pulp, cementum, alveolar process, periodontal ligament
- E. Gingiva and dentogingival junctional tissue

IV. Head and Neck Anatomy*

- A. Surface anatomy
- B. Systems
 - 1. skeletal
 - 2. nervous
 - 3. vascular
 - 4. muscular
 - 5. lymphatic
- C. Temporomandibular joint
- D. Glandular tissue
- E. Fasciae and spaces
- F. Radiographic interpretation of anatomical structures and deviations from normal*

V. Anatomy of Local Anesthesia*

VI. Spread of Infection

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

VII. Laboratory Exercises

- A. Identification of phases of embryological and fetal development
- B. Identification of phases of tooth development and eruption
- C. Identification of orofacial structures
- D. Identification of surface anatomy of the face and neck
- E. Identification of vascular, skeletal, musculature, nervous, lymphatic systems anatomy in the head and neck
- F. Identification of temporomandibular anatomy
- G. Identification of the glands associated with the head and neck regions. Identification of fasciae and spaces in the head and neck regions
- H. Identification of anatomy and deviations from normal on radiographs
- I. Identification of anatomical landmarks for local anesthesia
- J. Identification of routes of the spread of infection in the head and neck regions

Assignment:

Lecture

- 1. Reading 20-40 pages per week

2. 5-8 quizzes, 2 midterms and final

Laboratory

1. Lab exercises: 8-12

2. Local anesthesia: identification of landmarks and clinical considerations: 2-4

3. 1 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 problem solving assessments and 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.

Local anesthesia - identification of landmarks and evaluation of clinical considerations

Problem solving
10 - 20%

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

Lab exercises: drawings, models, skulls

Skill Demonstrations
25 - 35%

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

Quizzes and exams

Exams
50 - 60%

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

None

Other Category
0 - 0%

Representative Textbooks and Materials:

Illustrated Anatomy of the Head and Neck. 5th Ed. Fehrenbach, Margaret and Herring, Susan. Elsevier. 2017

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

Head and Neck By Numbers. 3rd Ed. Siggard, Felicia. 2013

Instructor prepared materials