University of Arkansas - Fort Smith
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General Syllabus

DHYG 3412 Oral Embryology and Histology

Credit Hours: 2 Lecture Hours: 2 Laboratory Hours: 0

Prerequisites: Admission to the Dental Hygiene program

Corequisites: DHYG 2111 Dental Anatomy and Occlusion, DHYG 2313 Radiology, DHYG 2432 Head and Neck Anatomy, DHYG 3102 Pre-Clinical Dental Hygiene, and DHYG 3103 Pre-Clinical Dental Hygiene Theory

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

Study of oral embryology and histology, including the application of pathophysiology to specific organ systems, extensively of the mouth. Emphasis on the identification and management of selected oral conditions.

B. Additional Information-None

II. Student Learning Outcomes

A. Subject Matter

Upon completion of this course, the student will:

1. Identify and name the regions of the head, neck, oral cavity, and pharynx.
2. Integrate the knowledge of these regions into the clinical practice of patient care and into the understanding of the developmental aspects of these regions.
3. Identify normal growth and development of the face and oral structures.
4. Describe the processes that occur at the cellular level in the growth and development of oral structures.
5. Explain the embryological development of the teeth.
6. Discuss cell growth and development and pathology involved.
7. Describe each of the basic histological types of tissues.

8. Discuss the complexities of the oral mucosa
9. Discuss the characteristics of the composition and development of the gingival and dentogingival junctional tissues.
10. Discuss histological features and embryological development of each orofacial structure.
11. Differentiate among enamel, dentin, and pulp tissue at the microscopic level.

Refer to *Graduate Competencies* in the Policy and Procedures Manual. These objectives increase knowledge in competencies listed above.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills: Students will identify a problem or issue. Students will use critical thinking skills to identify problems/issues and develop solutions/analysis. Students will research, evaluate and compare information from varying sources in order to evaluate authority, accuracy, and bias relevant to the problems/issues. Students will generate solutions/analysis of problems/ issues evaluated. Students will assess and justify the solutions and/or analysis.

Ethical Decision Making

Students will practice critical response to the writing of others, responsible use of research materials and intellectual property and the ethical use of persuasion. Students will practice and promote ethical behavior and high standards of care when discussing oral development issues. They will identify multiple ethical issues with thorough discussion of values and a framework for resolution.

Communication Skills (written and oral)

Students will communicate proficiently. Students will compose coherent documents appropriate to the intended audience. Students will effectively communicate orally in a public place.

III. Major Course Topics

A. Introduction to face and neck regions
B. Oral cavity and pharynx
C. Prenatal development
D. Development of the face and neck
E. Development of orofacial structures
F. Tooth development and eruption
G. Cell overview
H. Basic tissues
I. Gingival and dentogingival junctional tissues
J. Head and neck structures

K. Enamel
L. Dentin
M. Pulp
N. Periodontium: cementum, alveolar bone and periodontal ligament