

Common Course Outline
DNHY 102
Oral Histology and Embryology
2 Credits

The Community College of Baltimore County

Description

DNHY 102 – 2 Credits – Oral Histology and Embryology examines the general histology and embryology with emphasis on the microscopic structures of the various components of the orofacial structures, teeth and surrounding tissues.

2 credits; 2 lecture hours per week

Co-Requisites: DNHY 110, DNHY 111, DNHY 113, and DNHY 115

Overall Course Objectives

Upon completion of this course, the students will be able to:

1. define and pronounce key terms;
2. discuss the components and functions of the cell, the cell membrane, cytoplasm, organelles, and inclusions;
3. describe the components of the following organ systems: digestive system, respiratory system, vascular system, lymphatic system, endocrine system, urinary system, and reproductive system, and special senses;
4. discuss the periods of prenatal development of the face and palate, especially the major events that occur during the early weeks;
5. outline the development of the oral pharynx and the pharyngeal arches;
6. identify and describe the skeletal components and the development of the tissues of the face;
7. describe the origin of the tooth formative cells and the role of induction in tooth formation;
8. outline the stages of tooth formation and the mineralization of enamel and dentin;
9. describe the development of the tissues that surround the developing teeth;
10. describe the embryology, location, composition, structural and clinical importance of enamel, dentin-pulp complex, cementum, bone, collagen, alveolar process and periodontal ligaments;
11. discuss the histological structure of oral mucous membrane, the histology, function and distribution of salivary glands and the location, clinical importance structure and function of the gingival; and
12. apply the knowledge of the basic histology as it relates to specific histology of the orofacial region.

Major Topics

- I. Terminology
 - a. Descriptive terms
 - b. The Tooth: Function and Terms
 - c. Fundamental and preventive curvatures
 - d. Dentition
- II. General Histology
 - a. Basic tissues and organ systems
- III. Oral Histology
 - a. Soft tissues of the oral cavity
 - b. Supporting structures: Periodontium
 - c. Development of the orofacial complex
 - d. Enamel, dentin, pulp
 - e. Root formation and attachment apparatus
 - f. Root morphology
- IV. General Embryology
 - a. Oral and facial development
 - b. Tooth development: eruption and shedding
 - c. Formation of enamel
 - d. Formation of dentin
 - e. Development of pulp, cementum, and periodontal ligaments
 - f. Head and neck structures

Course Requirements

Grading procedures will be determined by the individual faculty member but will include the following:

Grading/exams: a minimum of two quizzes, a minimum of two written assignments utilizing appropriate academic resources, mid-term examination, and final examination.

Other Course Information

This course is a required course in the dental hygiene degree program. A grade of “C” or better is required for all dental hygiene courses in order to progress within the program.

Revised: 5/16/19