



**DHYG 1010 Oral Embryology and Histology**  
**COURSE SYLLABUS**  
**Fall Semester 2017**

**COURSE INFORMATION**

Credit Hours/Minutes: 1 Semester Credit Hour/750 Minutes  
Class Location: Room #906 Health Science Annex  
Class Meets: Tuesdays 8:00am-8:50am  
CRN: 20208

**INSTRUCTOR CONTACT INFORMATION**

Course Director: Lori V. DeFore, RDH, BS, BTh  
Office Location: Room #909, Health Sciences Annex (HSA)  
Office Hours: M: 7:30-8:30am & 5-5:30pm; T: 7:30-8:00am & 12:00-5:30pm; W: 7:30-8:00am; 10-10:30am & 5-5:30pm; Th: 7:30-9:00am  
Email Address: [ldefore@southeasterntech.edu](mailto:ldefore@southeasterntech.edu)  
Phone: 912-538-3251  
Fax Number: 912-538-3278

**REQUIRED TEXTS**

Illustrated Dental Embryology, Histology, and Anatomy, 4<sup>th</sup> ed., Fehrenbach & Popowics. 2015. Elsevier/Saunders.

Student Workbook for Illustrated Dental Embryology, Histology and Anatomy, 4th ed., Fehrenbach & Popowics. 2015. Elsevier/ Saunders.

**REQUIRED SUPPLIES & SOFTWARE**

Notebook, pen, paper, computer & color printer access

**COURSE DESCRIPTION**

This course focuses on the study of cells and tissues of the human body, with emphasis on those tissues that compose the head, neck, and oral cavity. Topics include: cellular structure and organelles, histology of epithelium, histology of muscle tissue, histology of nerve tissue, histology of connective tissue, embryological development of the head and neck, tooth development, and development of supporting structures.

**MAJOR COURSE COMPETENCIES (CC)**

1. Cellular Structure and Organelles

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2. Histology of Epithelium
3. Histology of Connective Tissue
4. Histology of Muscle Tissue
5. Histology of Nerve tissue
6. Histology of Oral Mucosa and Orofacial Structures
7. Embryological Development of the Head and Neck
8. Tooth Development
9. Development of Tooth Supporting Structures

### **PREREQUISITE(S)**

Program Admission

### **GENERAL EDUCATION CORE COMPETENCIES (GC)**

STC has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

### **STUDENT REQUIREMENTS**

Students are responsible for the policies and procedures in the STC E-Catalog, Dental Hygiene Program Handbook, and Dental Hygiene Clinic Manual. During an examination, the following procedures must be followed: All books and personal belongings must be placed at the back of the classroom. Students will be asked to rotate seats prior to the beginning of the test. Test proctor will personally examine each desk to ensure that no writing is present on desk. Computer monitors should be facing the front of the classroom during test. When a student completes the test, he/she may raise hand and turn paper in to proctor. Student must remain in seat until test time is complete to avoid distracting other students. Students who have completed testing should be as quiet as possible and avoid any activity that might make those students who are still testing feel pressured or rushed. Students may not go to the bathroom during the test session. Test proctor must observe students at all times and notify students when there are ten remaining minutes left of the total exam time. Test proctor should routinely walk around classroom and observe testing. Test proctor should refrain from grading papers, reading materials, or using computer during the test. Students caught with cheat sheets or cell phones will be considered cheating and a zero will be issued for the examination. The STC academic dishonesty policy will be enforced. Once the test begins, no talking is allowed. Once the test begins, tardy students may not enter the classroom.

Students are expected to exhibit professional behavior at all times. Each student must show respect and concern for fellow students and for the course instructors/supervising dentists. Insubordination will not be tolerated, and disciplinary measures will be enacted. No cell phones or smart electronic devices are allowed to be turned on in the classroom, clinic, or locker area. If a student is observed in possession of his/her cell phone or smart electronic device during class, a critical incident will be issued. A student cannot use his/her cell phone or smart electronic device during class. There are no exceptions to this rule and do not ask. If you have a personal situation going on, please advise your instructor and give your family the clinic receptionist's phone number for emergency contact. You should not have your cell phone or smart electronic device in the class! Personal phone calls must be handled after class.

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Prior to the discussion of each chapter in class, the student is expected to complete the following:

1. Read the assigned chapter(s) and be prepared to actively participate in class discussions and activities.
2. Complete any assignments or homework given by the course director.
3. Complete and know the learning objectives for each topic.
4. View any videos applicable to dated lesson plan material.
5. Obtain materials from the course Materials Drive: M/Dental Hygiene/DHYG 1010. Prior to class, print any materials available to be used in this class for study and during lecture.
6. Students are advised to check their e-mails regularly for any additional information that is related to the class or the Dental Hygiene Program.

## ATTENDANCE GUIDELINES

Class attendance is a very important aspect of a student's success. Being absent from class prevents students from receiving the full benefit of a course and also interrupts the learning process. Southeastern Technical College considers both tardiness and leaving early as types of absenteeism. Responsibility for class attendance rests with the student. Regular and punctual attendance at all scheduled classes is required for student success. Students will be expected to complete all work required by the instructor as described in the individual course syllabus. Students who stop attending class, but do not formally withdraw, may receive a grade of F and face financial aid repercussions in upcoming semesters. Instructors are responsible for determining whether missed work may be made up and the content and dates for makeup work is at the discretion of the instructor. Excused absences will be evaluated on a case-by-case basis by the program director. Examples of excused absences would be a car accident on the way to class/clinic or unexpected hospitalization of the student. Please do not plan a vacation or schedule a routine medical/dental appointment during the designated class/clinical times. Unexcused absences will not be made up and may lead to the student's failure of the course. Program director must be notified of any absences prior to scheduled clinic/class session.

Attendance is counted from the first scheduled class meeting of each semester. To receive credit for a course, a student must attend at least 90% of the scheduled instructional time. Assignments missed due to tardiness or absences must be made up at the convenience of the instructor. Any student attending less than the required scheduled instructional time (90%) may be dropped from the course as stated below in the Withdrawal Procedure.

Tardy means arriving after the scheduled time for instruction to begin. Early departure means leaving before the end of the scheduled time. Three (3) tardies or early departures equal one (1) absence for the course.

**For this class, which meets 1 session per week for 15 weeks, the maximum number of sessions a student may miss for attendance purposes is 2 sessions during the semester.**

## ADDITIONAL ATTENDANCE GUIDELINES FOR HEALTH SCIENCES

Requirements for instructional hours within Health Science programs reflect the rules of respective licensure boards and/or accrediting agencies. Therefore, these programs have stringent attendance policies. Each program's attendance policy is published in the program's handbook and/or syllabus which specify the number of allowable absences. All provisions for required make-up work in the classroom or clinical experiences are at the discretion of the instructor.

## **SPECIAL NEEDS**

Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Helen Thomas, 912-538-3126, [hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu), to coordinate reasonable accommodations.

## **SPECIFIC ABSENCES**

Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

## **PREGNANCY**

Southeastern Technical College does not discriminate on the basis of pregnancy. However, we can offer accommodations to students who are pregnant that need special consideration to successfully complete the course. If you think you will need accommodations due to pregnancy, please advise me and make appropriate arrangements with Helen Thomas, 912-538-3126, [hthomas@southeasterntech.edu](mailto:hthomas@southeasterntech.edu).

## **WITHDRAWAL PROCEDURE**

Students wishing to officially withdraw from a course(s) or all courses after the drop/add period and prior to the 65% portion of the semester (date will be posted on the school calendar) must speak with a Career Counselor in Student Affairs and complete a Student Withdrawal Form. A grade of "W" is assigned when the student completes the withdrawal form from the course.

Students who are dropped from courses due to attendance (see your course syllabus for attendance policy) after drop/add until the 65% point of the semester will receive a "W" for the course. Abandoning a course(s) instead of following official withdrawal procedures may result in a grade of 'F' being assigned.

After the 65% portion of the semester, the student will receive a grade for the course. (Please note: A zero will be given for all missed assignments.)

There is no refund for partial reduction of hours. Withdrawals may affect students' eligibility for financial aid for the current semester and in the future, so a student must also speak with a representative of the Financial Aid Office to determine any financial penalties that may be assessed due to the withdrawal. All grades, including grades of 'W', will count in attempted hour calculations for the purpose of Financial Aid.

**Remember** - Informing your instructor that you will not return to his/her course does not satisfy the approved withdrawal procedure outlined above.

## **MAKEUP GUIDELINES**

Students are allowed to make up only one missed exam excluding the final examination. This is only if they have an excused absence approved by the instructor. The make-up exam may be given in a different format than the original exam. A doctor's excuse and/or additional documentation will be requested. Ten points will be deducted from the test for taking the test late. All other missed exams/quizzes/class preparation assessments will result in a grade of zero. If you enter the classroom late, you will not be allowed to take the exam, and you will be issued a zero for the exam. PLEASE be on time! Projects are due on the date specified on the lesson plan at the start time of the class. Projects will not be accepted late for any reason!

Failure to complete homework assignments will result in one point being deducted from the final course grade for each assignment not completed by the deadline specified. Late or incomplete assignments will still need to be completed and turned in for instructor review and feedback. If you are going to be absent, you should deliver your assignment to your instructor prior to the deadline to ensure credit.

### **ACADEMIC DISHONESTY POLICY**

The STC Academic Dishonesty Policy states All forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline. The policy can also be found in the STC Catalog and Student Handbook.

### **PROCEDURE FOR ACADEMIC MISCONDUCT**

The procedure for dealing with academic misconduct and dishonesty is as follows:

#### **1. First Offense**

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

#### **2. Second Offense**

Student is given a grade of "WF" for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

#### **3. Third Offense**

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of third offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

### **STATEMENT OF NON-DISCRIMINATION**

The Technical College System of Georgia and its constituent Technical Colleges do not discriminate on the basis of race, color, creed, national or ethnic origin, sex, religion, disability, age, political affiliation or belief, genetic information, disabled veteran, veteran of the Vietnam Era, spouse of military member or citizenship status (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

The following individuals have been designated to handle inquiries regarding the nondiscrimination policies:

<b>ADA/Section 504 - Equity- Title IX (Students) - OCR Compliance Officer</b>	<b>Title VI - Title IX (Employees) - EEOC Officer</b>
Helen Thomas, Special Needs Specialist Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 108 Phone: 912-538-3126 <a href="mailto:hthomas@southeasterntech.edu">hthomas@southeasterntech.edu</a>	Blythe Wilcox, Director of Human Resources Vidalia Campus 3001 East 1 <sup>st</sup> Street, Vidalia Office 138B Phone: 912-538-3147 <a href="mailto:bwilcox@southeasterntech.edu">bwilcox@southeasterntech.edu</a>

## GRIEVANCE PROCEDURES

Grievance procedures can be found in the Catalog and Handbook located on STC’s website.

## ACCESS TO TECHNOLOGY

Students can now access Blackboard, Remote Lab Access, Student Email, Library Databases (Galileo), and BannerWeb via the mySTC portal or by clicking the Current Students link on the [STC website](#).

## TCSG GUARANTEE/WARRANTY STATEMENT

*The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

## EVALUATION PROCEDURES

### EXAMS

Students will be given a total of 4 examinations. The four examinations include 3 examinations throughout the semester and 1 comprehensive final examination at the end of the semester. A total of 100 points may be earned on each examination.

#### Exams:

- (1) Chapters 3, 4, 5, & 6 Dental Embryology**
- (2) Chapters 7, 8, 9, & 10 Dental Histology**
- (3) Chapters 11, 12, 13 & 14 Dental Histology**
- (4) Final Comprehensive Exam including all chapters and information included in this course of study.**

A comprehensive final examination will be given at the end of the semester, and no make-up exam will be allowed for the final examination. **Failure to take the final examination on the specified date will result in a grade of zero.** The final exam will include Chapters 3-14.

A **GROUP PROJECT** will be assigned to students on the first day of instruction. A total of 100 points may be earned on the group project. **Please follow the Power Point Project Information Guideline (Appendix A), the Grading Rubric (Appendix B), and the Self-Assessment Checklist (Appendix C) when compiling your Project.** **All Appendices will be provided on the first day of class.** Your overall grade is calculated from these formatting guidelines and instructions. All three appendices are contained in the course syllabus. **A hand-written, weekly progress report, two paragraphs minimum in length, from each group, will be expected to be turned in at the beginning of each class session to ensure project progress and to enable instructor to provide feedback. Students also need to bring proof of work completed.** The group project will involve assigned topics

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to paired students. The team members will be responsible for presenting a 10 minute overview of a developmental condition and its direct correlation to dental anomalies such as: disturbances that cause cleft palate, ectodermal dysplasia's dental affects, syphilis and *Treponema pallidum* and its effects on the dentition, fetal alcohol syndrome and dental effects, Down Syndrome and dental effects, or another which the instructor may assign. Each student will participate in the oral presentation and in the preparation of a Power Point Presentation. **Late projects will receive a grade of zero. Refer to your Lesson Plan in this Syllabus for the Power Point Project Presentation due date.**

Workbook assignments and handout completions **for homework** will be assigned throughout the semester. They are intended to give each student additional understanding of oral embryology and histology. The instructor will verify that each assignment is completed as well as give feedback. **The work will be checked on each test day and is directly related to the material covered on the test on that day.** (Example: Exam on chapters 1 & 2: the assignments checked and graded will be on chapters 1 & 2 from the workbook and any other worksheets, charts or assigned materials related to the chapters being studied.) A deduction of one point per each incomplete or late assignment will be calculated in the final course grade component.

### CLASS PREPARATION ASSESSMENT

A class preparation assessment and grade will be given at the beginning of class sessions as noted in the lesson plan. Each student shall randomly draw one question. The question will cover some topic or portion of the course material the student should have read and studied as noted in the syllabus lesson plan. If a student demonstrates prior class preparation by answering the question correctly, a session grade of one hundred (100) shall be recorded. If a student fails to demonstrate prior class preparation by answering the question incorrectly, a session grade of zero (0) will be recorded. The student will be allowed to remain in class, but shall be required to report to campus on Thursday of the same week at 7:00 am and study the course material until 12:00 noon to ensure time has been spent studying, and that application and understanding of course material may be achieved.

### GRADING POLICY

Assessment/Assignment	Percentage
Exam 1	15%
Exam 2	15%
Exam 3	15%
Exam 4 (Final)	20%
Group Project	15%
Class Preparation Assessments (8 averaged together)	20%
Point Deductions for Late or Incomplete Assignments	

### GRADE CALCULATION

Exam 1 \_\_\_\_ X.15= \_\_\_\_

Exam 2 \_\_\_\_ X.15= \_\_\_\_

Exam 3 \_\_\_\_ X.15= \_\_\_\_

Exam 4 (Final) \_\_\_\_ X.20= \_\_\_\_

Group Project \_\_\_\_ X.15= \_\_\_\_

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### **Class Preparation Assessment**

Class Preparation Assessment #1 \_\_\_\_\_

Class Preparation Assessment #2 \_\_\_\_\_

Class Preparation Assessment #3 \_\_\_\_\_

Class Preparation Assessment #4 \_\_\_\_\_

Class Preparation Assessment #5 \_\_\_\_\_

Class Preparation Assessment #6 \_\_\_\_\_

Class Preparation Assessment #7 \_\_\_\_\_

Class Preparation Assessment #8 \_\_\_\_\_

(8 averaged together) \_\_\_\_\_ X.20= \_\_\_\_\_

**Point Deductions for late or Incomplete Assignments-** \_\_\_\_\_

**Final Course Grade=** \_\_\_\_\_

### **GRADING SCALE**

<b>Letter Grade</b>	<b>Range</b>
A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

### **LIBRARY RESOURCES**

The address of the Southeastern Technical College Library website is listed below: [STC Library resources](#). This link will provide additional information on citations using APA format. The link will also provide access to Galileo, Online Catalog, Net Library on campus, Net Library off campus, periodicals, and newspapers. In addition, you may seek additional assistance in person by visiting the librarian in the Medical Technology Building or the librarian in the main building.

### **WEBSITES FOR SELF-ASSESSMENT AND APPLICATION OF CRITICAL THINKING SKILLS**

[Elsevier health website](#)

[Quizlet Embryology and Histology website](#)

### **INSTRUCTIONAL DELIVERY METHODS**

The following methods will be utilized to facilitate learning: lecture may employ PowerPoint presentations with handouts, workbook activity sheets, homework assignments, multimedia presentations, group discussions, independent reading assignments, research activities, interactive websites, games and group collaboration.



### Dental Hygiene Program Goals

- A. To provide comprehensive preparation of competent individuals in the arts and sciences pertinent to the discipline of dental hygiene.
- B. To provide comprehensive preparation of competent individuals in the clinical and laboratory experiences, which are necessary to develop skills in rendering professional dental hygiene patient care to the public.
- C. To provide an environment which will foster respect for the Dental Hygiene Professional Code of Ethics and Conduct and assure recognition and acceptance of the responsibilities of the profession of dental hygiene.
- D. To prepare the graduates of the basic two-year curriculum in dental hygiene to fulfill the dental hygienist's role in community oral health services.
- E. To teach students to conduct critical reviews of current literature as a means of research and life-long learning.
- F. To teach students to seek life-long learning through continuing education courses on the latest products and developments in dentistry and medicine.

**CHAPTER 3: PRENATAL DEVELOPMENT**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Outline the preimplantation period, including the major events that occur during this first week of prenatal development. (A,B,D)
3. Integrate a study of the preimplantation period of prenatal development into the development of the orofacial structures and the clinical considerations due to developmental disturbances associated with these structures. (A,B,D)
4. Outline the second week of prenatal development during the embryonic period, including the major events that occur. (A,B,D)
5. Outline the third week of prenatal development during the embryonic period, including the major events that occur. (A,B,D)
6. Outline the fourth week of prenatal development during the embryonic period, including the major events that occur. (A,B,D)
7. Integrate the study of the embryonic period of prenatal development into orofacial development and the clinical considerations due to developmental disturbances associated with these structures. (A,B,D)
8. Outline the fetal period of prenatal development, including the major events that occur after the fourth week until birth within this period. (A,B,D)
9. Integrate the study of the fetal period of prenatal development into orofacial development and the clinical considerations due to developmental disturbances associated with these structures. (A,B,D)
10. Identify the structures present during prenatal development on a diagram. (A,B,D)

**CHAPTER 4: FACE AND NECK DEVELOPMENT**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Outline the events that occur during facial development, describing each step in its formation. (A,B,D)
3. Identify the structures present during facial development on a diagram. (A,B,D)
4. Integrate the study of the facial development into understanding the observed orofacial structures and the clinical considerations due to developmental disturbances of these structures. (A,B,D)
5. Outline the events that occur during neck development, describing each step in its formation. (A,B,D)
6. Identify the structures present during neck development on a diagram. (A,B,D)
7. Integrate the study of neck development into understanding the observed orofacial structures and the clinical considerations due to developmental disturbances of these structures. (A,B,D)

**CHAPTER 5: OROFACIAL DEVELOPMENT**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Outline the events that occur during palatal development, describing each step of its formation. (A,B,D)
3. Integrate the study of palatal development into understanding the present structure and the clinical considerations due to developmental disturbances involved in palatal development. (A,B,D)
4. Identify the structures present during palatal development on a diagram. (A,B,D)

5. Outline the events that occur during nasal cavity and nasal septum development. (A,B,D)
6. Integrate the study of nasal cavity and nasal septum development into understanding the present structure. (A,B,D)
7. Identify the structures present during nasal cavity and nasal septum development on a diagram. (A,B,D)
8. Outline the events that occur during the tongue development, describing each step of its formation. (A,B,D)
9. Integrate the study of tongue development into understanding the present structure and the clinical considerations due to developmental disturbances involved in tongue development. (A,B,D)
10. Identify the structures present during tongue development on a diagram. (A,B,D)

#### **CHAPTER 6: TOOTH DEVELOPMENT AND ERUPTION**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Outline the five stages of tooth development. (A,B,D)
3. Integrate the study of tooth development into understanding the present tooth anatomy and the clinical considerations due to developmental disturbances. (A,B,D)
4. Outline the process of root development. (A,B,D)
5. Integrate the study of root development into understanding the present tooth anatomy and the clinical considerations due to developmental disturbances. (A,B,D)
6. Discuss periodontal ligament and alveolar process development. (A,B,D)
7. Identify the structures present during tooth crown and root development as well as the periodontal ligament and alveolar process development on a diagram. (A,B,D)
8. Outline the events that occur during tooth eruption. (A,B,D)
9. Integrate the study of tooth eruption into understanding the present tooth anatomy and the clinical considerations due to developmental disturbances. (A,B,D)
10. Identify the structures present during tooth eruption on a diagram. (A,B,D)

#### **CHAPTER 7: CELLS**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Discuss cell properties and components, including the cell membrane, cytoplasm, organelles, and inclusions. (A,B,D)
3. Identify the components of the cell on a diagram. (A,B,D)
4. Outline the cell cycle, describing the phases of mitosis that are involved. (A,B,D)
5. Describe the extracellular materials surrounding the cell and its intercellular junctions. (A,B,D)
6. Integrate the study of cell anatomy into the further study of dental histology. (A,B,D)

#### **CHAPTER 8: BASIC TISSUE**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Discuss basic tissue properties. (A,B,D)
3. Describe epithelium properties, including its histology, classification, regeneration, and repair. (A,B,D)
4. Describe basement membrane properties, including its histology. (A,B,D)

5. Integrate the study of the histology of both epithelium and the basement membrane into the further study of dental histology. (A,B,D)
6. Discuss connective tissue properties, including its histology, classification, turnover, and repair. (A,B,D)
7. Describe specialized connective tissue properties. (A,B,D)
8. Describe cartilage properties, histology, development, repair, and aging. (A,B,D)
9. Describe bone properties, histology, development, remodeling, repair, and aging. (A,B,D)
10. Describe blood properties, plasma, and blood components. (A,B,D)
11. Integrate the study of the basic histology of connective tissue into understanding the clinical considerations of the orofacial region. (A,B,D)
12. Describe muscle properties, classifications, and histology. (A,B,D)
13. Describe nerve tissue properties and histology as well as the nervous system divisions. (A,B,D)
14. Integrate the study of the histology of both muscle and nerve tissue into the further study of dental histology. (A,B,D)
15. Identify the components of each basic tissue on a diagram. (A,B,D)

#### **CHAPTER 9: ORAL MUCOSA**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. List and describe the types of oral mucosa, characterizing each type of epithelium associated with the oral cavity. (A,B,D)
3. Discuss the clinical considerations for oral mucosa pathology, integrating it into patient care. (A,B,D)
4. Identify the components of each type of oral mucosa on a diagram. (A,B,D)
5. List and discuss the clinical correlations associated with the regional differences in the oral mucosa, integrating it into patient care. (A,B,D)
6. Discuss tongue and lingual papillae properties as well as oral mucosa pigmentation and the clinical considerations for both. (A,B,D)
7. Discuss the turnover times for regions of the oral cavity and associated clinical correlations, as well as repair and aging considerations, integrating it into patient care. (A,B,D)

#### **CHAPTER 10: GINGIVAL AND DENTOGINGIVAL JUNCTIONAL TISSUE**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. List and describe each type of gingival tissue. (A,B,D)
3. Describe the histologic features of each type of gingival tissue and the clinical considerations for gingival tissue esthetics, integrating it into patient care. (A,B,D)
4. Identify the components of each type of gingival tissue on a diagram. (A,B,D)
5. Describe dentogingival junctional properties, histology, and development. (A,B,D)
6. Identify the structure of the dentogingival junctional tissue on a diagram. (A,B,D)
7. Discuss the clinical considerations for gingival tissue pathology, integrating it into patient care. (A,B,D)
8. Discuss turnover of the dentogingival junctional tissue and its clinical implications. (A,B,D)

#### **CHAPTER 11: HEAD AND NECK STRUCTURES**

1. Define and pronounce the key terms in this chapter. (A,B,D)

2. Discuss gland properties. (A,B,D)
3. Discuss salivary gland properties, including its histologic features and development, as well as the clinical considerations concerning salivary gland pathology, integrating it into patient care. (A,B,D)
4. Discuss thyroid gland properties, including its histologic features and development, as well as the clinical considerations concerning thyroid gland pathology, integrating it into patient care. (A,B,D)
5. Discuss properties of lymphatics, including the lymph nodes and intraoral tonsillar tissue, and the clinical considerations concerning lymphoid tissue pathology, integrating it into patient care. (A,B,D)
6. Discuss the properties of the nasal cavity and paranasal sinuses, as well as clinical considerations concerning each of them, integrating it into patient care. (A,B,D)
7. Identify the components of head and neck structures on a diagram. (A,B,D)

#### **CHAPTER 12: ENAMEL**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Describe the enamel properties and the clinical considerations concerned with enamel structure, integrating it into patient care. (A,B,D)
3. Discuss the processes involved in the apposition and maturation stages of enamel, as well as the clinical considerations concerned with enamel formation and pathology, integrating it into patient care. (A,B,D)
4. Discuss the histology of enamel and the clinical considerations for dental procedures concerning enamel, integrating it into patient care. (A,B,D)
5. Identify the components of the enamel on a diagram. (A,B,D)

#### **CHAPTER 13: DENTIN AND PULP**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Discuss the dentin-pulp complex. (A,B,D)
3. Describe the properties of dentin and the clinical consideration for dentin structure, integrating it into patient care. (A,B,D)
4. Describe the processes involved in the stages of apposition and the maturation of dentin. (A,B,D)
5. Outline the types of dentin and discuss the clinical considerations for dentin pathology, integrating it into patient care. (A,B,D)
6. Discuss the histology of dentin. (A,B,D)
7. Describe pulp properties, including its anatomic components. (A,B,D)
8. Discuss the histology of pulp and the clinical considerations for pulp pathology and repair, integrating it into patient care. (A,B,D)
9. Identify the components of both the dentin and the pulp on a diagram. (A,B,D)

#### **CHAPTER 14: PERIODONTIUM: CEMENTUM, ALVEOLAR PROCESS, AND PERIODONTAL LIGAMENT**

1. Define and pronounce the key terms in this chapter. (A,B,D)
2. Give an overview of periodontium properties, including its components. (A,B,D)
3. Identify each individual component of the periodontium on a diagram. (A,B,D)

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4. Discuss cementum properties and the clinical considerations with cementum structure, integrating it into patient care. (A,B,D)
5. Discuss cementum development, histology, types, and repair as well as the clinical considerations for cementum pathology, integrating it into patient care. (A,B,D)
6. Discuss alveolar process properties, including jaw anatomy and histology. (A,B,D)
7. Discuss the clinical considerations with the alveolar process, integrating it into patient care. (A,B,D)
8. Describe periodontal ligament properties. (A,B,D)
9. Identify the fiber groups of the periodontal ligament on a diagram and discuss the functions assigned to each of them. (A,B,D)
10. Discuss the clinical considerations for periodontal ligament pathology and repair, integrating it into patient care. (A,B,D)

## DHYG 1010 Oral Embryology and Histology

### Fall Semester 2017 lesson plan

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area	ADEA
8/15 Week 1	Chapter 3	<p>First day of class/Introduction to Course—Syllabi, Outline, Rules, Regulations Coverage.</p> <p><b>Prenatal Development</b> <i>Discussion with PPTS</i></p> <p>Create a Timeline on the periods of prenatal development: Pre-implantation, Embryonic and Fetal periods; Outline occurrences during the 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> Weeks of the Embryonic Period.</p> <p><i>Videos: Germ Layers, Gastrulation, Embryonic Folding</i></p> <p><i>Case Study:</i> Down Syndrome</p>	<p>Complete Workbook and any related assignments prior to class.</p> <p>Read the Textbook Material prior to each class session.</p> <p><i>Review PPTs on M:Drive for study aids</i></p> <p>WORKBOOK Pgs. 8-11; Glossary Exercises: Pgs. 84-93 Unit II Case Studies 1-5: Pgs. 219-228</p> <p>Assign topics for projects</p> <p>OCTOBER 17, 2017 Group Projects Due</p>	CC 1-7 GC c	PC 2-3 HP 4-5

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area	ADEA
8/22 Week 2	Chapters 4-5	<p><b>Face and Neck Development</b></p> <p>Class Preparation Assessment #1</p> <p><b><i>Discussion with PPTS</i></b></p> <p>Discuss facial development and the formation of: the stomodeum, oral cavity, mandibular arch, lower face, frontonasal process, upper face, maxillary process, and midface.</p> <p>Discuss neck development and the formation of: the primitive pharynx and the branchial arches.</p> <p>Group Activity: Compare the five facial processes with the mature facial structures.</p> <p><b>Orofacial Development</b></p> <p>Outline Palatal Development Events: The formation of the primary and secondary palate and completion of palate.</p> <p>List the steps that occur during the formation of the body, base and completion of tongue development.</p> <p><i>Videos: Face, Palate, and Pharyngeal Arches Formation</i></p>	<p>WORKBOOK Pgs. 11-15</p> <p>Tongue Histology PPT</p> <p>Tooth Development PPT</p> <p>Complete Workbook and any related assignments</p> <p>Project Progress Report Due</p>	<p>CC 6,7</p> <p>GC c</p>	<p>PC 2-3</p> <p>HP 4-5</p>

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area	ADEA
8/29 Week 3	Chapter 6	<p><b>Tooth Development and Eruption</b></p> <p>Class Preparation Assessment #2</p> <p><i><b>Discussion with PPTS</b></i></p> <p>Worksheet: Compare/Contrast 6 Tooth Development Stages</p> <p>Worksheet: Tissue Comparison of Enamel, Dentin, Cementum &amp; Alveolar Bone</p> <p><i>Videos: Tooth Development</i></p> <p>Case Studies: Ankyloglossia &amp; Cervical Cysts</p>	<p>Complete Workbook and any related assignments</p> <p>Project Progress Report Due</p>	<p>CC 8,9 GC c</p>	<p>PC 2-3 HP 4-5</p>
9/5 Week 4	Chapter 6 CONT.	<p><b>Tooth Development and Eruption Continued</b></p> <p><i><b>Discussion with PPTS</b></i></p> <p>Pairs Activity: Developmental disturbances during: Initiation, Bud, Cap, Apposition &amp; Maturation, Root Formation, &amp; Eruption.</p> <p>Activity: Root Formation: Outline the Formation Processes of: Root Dentin, Cementum, Pulp, Multi-Rooted Teeth, Alveolar Bone &amp; the Periodontal Ligament.</p>	<p>Complete Workbook and any related assignments:</p> <p>WORKBOOK Pgs. 16-21</p> <p>Unit III Case Studies 1-5: Pgs. 229-238</p> <p>Cell Structure Sheet on M: Drive</p> <p>Project Progress Report Due</p>	<p>CC 8,9 GC c</p>	<p>PC 2-3 HP 4-5</p>

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area	ADEA
9/12 Week 5	Chapters 3-6	Chapters 3-6	<p><b>EXAM 1</b> <b>Chapters</b> <b>3-6</b></p> <p>Allow instructor to view chapter assignments for credit.</p> <p>Project Progress Report Due</p>	CC 4, 5 GC a,c	PC 2-3 HP 4-5
9/19 Week 6	Chapters 7-8	<p><b>Cells</b></p> <p>Class Preparation Assessment #3</p> <p><b>Discussion with PPTS</b> <i>Video: Tour of a Cell</i></p> <p>Worksheets: Cell Organelles &amp; Functions and Mitosis Phases</p> <p><b>Basic Tissue</b> <i>Video: Four Tissue Types</i></p> <p>Activities: Using Individual Index Cards, List and Classify Connective Tissue Types by Location and Function.</p> <p>List the location and function of the 3 Connective Tissue types.</p>	<p>Complete Workbook and any related assignments</p> <p>WORKBOOK Pg. 22</p> <p>Project Progress Report Due</p>	CC 1-5 GC c	PC 2-3 HP 4-5

<b>Date/ Week</b>	<b>Chapter/ Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>	<b>ADEA</b>
9/26 Week 7	Chapters 8-9	<p><b>Basic Tissue Continued</b></p> <p>Class Preparation Assessment #4</p> <p><i>Discussion with PPTS</i></p> <p>Index Card Activity: List the Location and Types of Muscle. <i>Video: Three Types of Muscle</i></p> <p><b>Oral Mucosa</b></p> <p>Game: Types of Mucosa Worksheets: Oral Mucosa &amp; Gingiva</p>	<p>Complete Workbook and any related assignments WORKBOOK Pg. 23</p> <p>Project Progress Report Due</p>	CC 2-6 GC c	PC 2-3 HP 4-5
10/03 Week 8	Chapters 9-10	<p><b>Oral Mucosa Continued</b></p> <p>Class Preparation Assessment #5</p> <p><i>Discussion with PPTS</i></p> <p>Activity: Tongue drawing and labeling</p> <p><b>Gingival and Dentogingival Junctional Tissue</b></p> <p>Activity: List the types of gingival tissue and defining characteristics of each.</p>	<p>Complete Workbook and any related assignments WORKBOOK Pgs. 28-32</p> <p>Project Progress Report Due</p>	CC 2-6 GC c	PC 2-3 HP 4-5
10/10 Week 9	<b>Chapters 7-10</b>	<b>Chapters 7-10</b>	<p><b>EXAM 2</b></p> <p><b>Chapters 7-10</b></p> <p>Chapter assignments due Project Progress Report Due</p>	CC 2, 3, 4 GC a,c	PC 2-3 HP 4-5
10/17 Week 10		<p><b>POWER POINT GROUP PRESENTATIONS THIS CLASS SESSION</b></p>	<p>Provide PPT Grading Rubric and Self-Assessment Checklist for Instructor</p>	CC 1-9 GC a-c	PC 2-3 HP 4-5

Date/ Week	Chapter/ Lesson	Content	Assignments & Tests Due Dates	Competency Area	ADEA
10/24 Week 11	Chapter 11	<p><b>Head and Neck Structures</b></p> <p>Class Preparation Assessment #6</p> <p><b><i>Discussion with PPTS</i></b></p> <p>Game: Salivary Gland Comparison Worksheet: Fill in the Blank Key Terminology Handouts: Salivary Gland Development, Salivary Gland Mnemonic &amp; Lymph nodes</p>	<p>Complete Workbook and any related assignments</p> <p>WORKBOOK Pgs. 33-38</p>	<p>CC 7 GC c</p>	<p>PC 2-3 HP 4-5</p>
10/31 Week 12	Chapters 12-13	<p><b>Enamel</b></p> <p>Class Preparation Assessment #7</p> <p><b><i>Discussion with PPTS</i></b></p> <p>Handout: Enamel Conditions Mnemonic</p> <p><b>Dentin and Pulp</b></p> <p>Game: Dentin Types Activity: Draw and Label Exercise Research: Find a clinical consideration related to dentin structure and the proper recommendations for patients with the condition.</p>	<p>Complete Workbook and any related assignments</p> <p>WORKBOOK Pg. 39 UNIT II &amp; III Review Exercises: Pgs. 205-212</p>	<p>CC 8 GC c</p>	<p>PC 2-3 HP 4-5</p>

<b>Date/ Week</b>	<b>Chapter/ Lesson</b>	<b>Content</b>	<b>Assignments &amp; Tests Due Dates</b>	<b>Competency Area</b>	<b>ADEA</b>
11/07 Week 13	Chapter 14	<b>Periodontium: Cementum, Alveolar Process, and Periodontal Ligament</b>  Class Preparation Assessment #8  <b>Discussion with PPTS</b>  Activity: Two groups Compare and Contrast Cementum Types Videos: Cementogenesis & Alveolar Bone Histology	Complete Workbook and any related assignments  WORKBOOK Pgs. 40-43	CC 9 GC c	PC 2- 3 HP 4- 5
11/14 Week 14	<b>Chapters 11-14</b>	<b>Chapters 11-14</b>	<b>EXAM 3 Chapters 11-14</b>  Allow instructor to view chapter assignments for credit.	CC 7,8,9 GC a,c	PC 2- 3 HP 4- 5
11/21 Week 15	<b>Chapters 3-14</b>	<b>Interactive Final Review</b>		CC 7,8,9 GC a,c	PC 2- 3 HP 4- 5
11/22 and 11/23	NO CLASS	<b>THANKSGIVING HOLIDAYS</b>	Study for Final Exam		
11/30 8:00am Special day Thurs.	<b>Chapters 3-14</b>	<b>FINAL EXAM</b>	<b>COMPREHENSIVE FINAL EXAM # 4</b>	CC 1-9 GC a,c	PC 2- 3 HP 4- 5

**\*This lesson plan is subject to change at the discretion of the instructor.**

**Competency Areas (CC):**

1. Cellular Structure and Organelles
2. Histology of Epithelium
3. Histology of Connective Tissue
4. Histology of Muscle Tissue
5. Histology of Nerve Tissue
6. Histology of Oral Mucosa and Orofacial Structures
7. Embryological Development of the Head and Neck
8. Tooth Development

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9. Development of Tooth Supporting Structures

**General Core Educational Competencies (GC):**

- a) The ability to utilize standard written English.
- b) The ability to solve practical mathematical problems.
- c) The ability to read, analyze, and interpret information.