

University of Detroit Mercy School of Dentistry

Department of Biomedical Sciences

Course Syllabus

Oral Histology DBS 812

Course Information

Web Address: <http://knowledge.udmercy.edu>

Course Director:

Michelle Wheater, Ph.D. Office: Dental Building 4-205 Office Hours by appointment or contact Carol Grennan, Administrative Assistant. 313-494-6630 Phone: 313-494-6634 Email: wheatemi@udmercy.edu

WinterTerm, 2008

DS1 Students (Class of 2011)

Wednesdays, 10:00 – 11:50

Virtual Laboratory Fridays, 1:00 – 3:50

Credit Hours: 3.0

Prerequisites: DBS 813 Histology

Lecturers/Support Faculty

Lecturers:

Michelle A. Wheater, Ph.D.

Preclinical/Clinical Faculty:

Academic Policies:

All policies in the School of Dentistry Academic Policies Handbook including but not limited to academic integrity, mandatory attendance, professional decorum and dress code, identification (ID) badges, preclinical and classroom decorum, use of cell phone and electronic devices, examination policies and exam/quiz absences apply.

Accommodations:

If you would like to request a classroom, testing, preclinical, clinical, or other accommodation because of a legally protected disability, or if you might require any special assistance in the event of an emergency or evacuation, please contact the University of Detroit Mercy Office of University Academic Services (UAC) at 313-578-0310 or email your request for information to gallegem@udmercy.edu.

Student Evaluation of Instruction

Student feedback is valued by the faculty and the administration. All students are required to complete the School of Dentistry on-line course evaluation by a specified date. Failure to comply by posted deadline dates will result in the receipt of an F (Failing) grade of record for the Evaluation Responsibility Course. Only constructive, professional recommendations will be reported and considered.

Course Description

Purpose of the course:

The purpose of Oral Histology is to provide foundation knowledge of the development and related developmental abnormalities of the orofacial region and the teeth, and of structure-function relationships of the hard and soft tissues of the oral cavity.

Course Goals:

The goal of Oral Histology is to engage the dental student in learning the key foundation concepts of the embryological development of the face, oral cavity, and teeth, and of the structure and function of the hard and soft tissues of the teeth and oral cavity. The systematic application of this foundation knowledge will be applied to pathological conditions in succeeding courses.

Course Objectives:

At the conclusion of the course, the dental student will be able to:

- Describe key events in the embryologic development of the face and oral cavity and relate abnormalities in development to those key events
- Define the major morphological and physiological stages in odontogenesis, and relate abnormalities in tooth structure to defects in those stages
- Understand the formation, structure, and mineralization of dentin, and the fate of odontoblasts

- Describe the formation, structure, and mineralization of enamel, and the fate of ameloblasts
- Define the different types of cementum, and discuss the relationship of cementum cells and collagen fibers to cementum formation
- Define the histological layers of pulp, and innervation and vascular patterns
- Understand the development, structural components, and function of the periodontal ligament
- Discuss the development, structure, and functional changes of the alveolar process
- Define the histological and functional features of the mucosal areas of the oral cavity and lips
- Describe the major salivary glands as to development, cell structure, duct system and function.

Instructional Methods:

Material is initially introduced to the student using PowerPoint presentations in large group lecture. Opportunities for students to review material and to practice learning concepts are provided by virtual laboratory modules, interactive online reviews, and practice exam questions. A web site is maintained on the UDM Instructional Design Studio (IDS) Blackboard system for this course. This site will be used for posting lecture materials, relevant web-based materials, assignments, announcements, and course information.

School of Dentistry Competencies

Competency-based Education: Assumes that learning to become an entry-level professional is a progression through stages from novice to competent.

Stages of Progression to Competence:

F or Foundation Knowledge: Basic knowledge, skills, and attitudes needed to begin the journey to competence.

N or Novice Level: Ability to articulate or describe the appropriate skills, knowledge, and professional attitudes. Novices need structure, clarity of goals, single and clearly explained approaches.

B or Beginner Level: Combines the appropriate skills, knowledge, and professional attitudes, all of which are performed with guidance and correction.

C or Competent Level: Combines the appropriate supporting skills, knowledge, and professional attitudes, all of which are performed reliably without assistance.

	Competencies of the Graduating Dental Student	Addressed	Evaluated	Method
1.	The graduating student obtains, records, updates and organizes accurate and completed medical/dental histories including pertinent psychological and socioeconomic information.	NO	NO	NA NA NA
2.	The graduating student performs, records and organizes a physical assessment appropriate for dental care.	NO	NO	NA NA NA
3.	The graduating student determines differential, provisional or definitive diagnoses by correlating and interpreting examination and assessment findings.	YES	F	Written Evaluation Computer Simulation NA
4.	The graduating student develops alternative treatment plans which are sequenced to address the chief complaint, eliminate oral disease, restore function, and maintain health, and prevent oral disease consistent with assessment and diagnoses.	NO	NO	NA NA NA
5.	The graduating student establishes with the patient a mutually acceptable treatment plan.	NO	NO	NA NA NA
6.	The graduating student monitors and provides for patient comfort associated with dental care.	NO	NO	NA NA NA
7.	The graduating student delivers and/or manages the planned treatment in sequence and in accordance with accepted standards of care.	NO	NO	NA NA NA
8.	The graduating student promotes health maintenance and disease prevention.	YES	F	Written Evaluation Computer Simulation NA
9.	The graduating student applies the principles of infection control and environmental safety.	NO	NO	NA NA NA
10.	The graduating student makes professional decisions	NO	NO	NA

	affecting the practice of dentistry based on values that satisfy legal and ethical principles and service to society.			NA NA
11.	The graduating student performs routine self evaluation.	YES	NO	NA NA NA
12.	The graduating student applies business and practice management skills.	NO	NO	NA NA NA
13.	The graduating student demonstrates interpersonal skills to function successfully in a multicultural work environment.	YES	NO	NA NA NA
14.	The graduate critically evaluates the validity of new information, new products, and/or techniques and their relevance to the practice of dentistry.	YES	NO	NA NA NA

Course Policies

- Use of Blackboard: In addition to hard copies, all course materials will be posted on Blackboard. Virtual laboratory modules will also be available on Blackboard for student review. Online image exams are administered through Blackboard. Course information will be disseminated through Blackboard announcements.
- Protocol for missed quizzes and exams: It is expected that each student will come prepared for each lecture session. All notifications of absences or illnesses **MUST** be made to the Course Director in addition to the Registrar's Office.
 - Exams:* Make-up examinations in the event of an excused absence will be given within one week of the scheduled exam. Failure to take an exam will result in a zero (0) grade for that exam.
 - Quizzes:* If the student is unable to take the scheduled quiz, notification must be given to the Course Director **on the day of the quiz**. Email notification of an absence is acceptable. *The student will be permitted to take the quiz ONLY if notification of an absence was given on the day of the scheduled quiz.*
- Tardiness and/or behaviors during class: Students that are late for class will NOT enter the classroom after the lecture has started. If there is a pause in the lecture, entrance may be made with a minimum of disturbance. If a student's behavior is such that it is disturbing other students in the class, that student may be asked to leave the class. There will be NO active cell phones, audible beepers, food, or restroom breaks allowed during class. Drinks are permissible.
- Examination policies: **Students who arrive late to a scheduled exam will be permitted to take the examination UNLESS other students have completed the exam and have already left the examination room.** The student will not be given extra time to complete the exam and must complete the exam within the designated time. During the exam, the student will place bookbags, backpacks, notes, coats, and hats in a designated area of the examination room. All cell phones and beepers will be off during the examination. PDAs and tablets are not permitted during the exam.
- Tablet PC utilization expectations: Histology is a visual discipline, and concepts are best understood using a text and image approach. PowerPoint presentations will be posted on Blackboard before each lecture, so the student is encouraged to use the tablet PC to view the lecture material both before and during the actual lecture. The virtual lab modules are online, and the student is required to utilize this material as a component of the course.
- Attendance Policy: Students will sign-in for each lecture. Students are permitted to be absent for 5 lectures without penalty. Students absent for 6-10 lectures will have 5 points deducted from the total course points, and students absent for more than 10 lectures will have 10 points deducted from the total course points.

Textbook and Resource Materials

- Recommended textbook:
Antonio Nanci, Author. Ten Cate's Oral Histology: Development, Structure, and Function. 7th edition.
Mosby ISBN-10: 032304557X ISBN-13: 978-0323045575
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- Online resources:
See the Blackboard site

Evaluation and Grading

Grading Scale

A	=94-100%
A-	=90-93%
B+	=87-89%
B	=83-86%
B-	=80-82%
C+	=77-79%
C	=73-76%
C-	=70-72%
D	=60-69%
F	=below 60%
W	Withdraw, no credit
I	Incomplete, a temporary grade not of record

In calculating the final course percentage, the score will be rounded to whole numbers. A score of 89% to 89.4% will be considered 89%, a grade of B+. A score of 89.5% to 89.9% will be considered 90%, a grade of A-.

Course Grade Components

Mid-term Exam	100 points	45.5%
Mid-term Image Exam	10 points	4.5%
Final Exam	100 points	45.5%
Final Image Exam	<u>10 points</u>	4.5%
	220 points TOTAL	

Course Evaluation Methods

Mid-Term Exam

50 MCQ will be drawn from the lecture material covered in Section One of the course. There will be no image-based questions in the mid-term exam. Each MCQ is worth 2 points for 100 points total.

Final Exam

50 MCQ will be drawn from the lecture material covered in Section Two of the course. The final exam is not cumulative. There will be no image-based questions in the final exam. Each MCQ is worth 2 points for 100 points total.

Image Exams

There will be 2 online image exams given during the term. The exams will consist of 10 images relevant to the lecture material. There will be a 10 minute time limit for each image exam, they will be available online for an announced period of time, and they can be taken **only one time**.

Lab Modules

A Lab Module relevant to each lecture will be posted on Blackboard for student review. The Lab Modules are intended to function as self-review tools, and will NOT be graded. NO grades or points will be given for the Lab Modules.

DBS 812 ORAL HISTOLOGY COURSE SCHEDULE

DATE	TOPICS	LECTURERS	READINGS/ASSIGNMENTS
Wednesday, Jan 16 10:00 – 11:50 AM			
Friday, Jan 18 1:00 – 3:50 PM Virtual Lab			
Wednesday, Jan 23 10:00 – 11:50 AM	Introduction to the course <i>Lecture:</i> Events in the first month of embryogenesis	Wheater	PowerPoints online or hard copy
Friday, Jan 25 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #1:</i> Events in the first month of embryogenesis
Wednesday, Jan 30 10:00 – 11:50 AM	<i>Lecture:</i> Pharyngeal apparatus and neural crest	Wheater	PowerPoints
Friday, Feb 1 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #2:</i> Pharyngeal apparatus and neural crest
Wednesday, Feb 6 10:00 – 11:50 AM	<i>Lecture:</i> Development of the face and oral cavity	Wheater	PowerPoints
Friday, Feb 8 1:00 – 3:50 PM Virtual Lab		Self-Study	<i>Lab Module #3:</i> Development of the face and oral cavity
Wednesday, Feb 13 10:00 – 11:50 AM	<i>Lecture:</i> Odontogenesis	Wheater	PowerPoints
Friday, Feb 15 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #4:</i> Odontogenesis
Wednesday, Feb 20 10:00 – 11:50 AM	<i>Lecture:</i> Dentinogenesis and Dentin	Wheater	PowerPoints
Friday, Feb 22 1:00 – 3:50 PM Virtual Lab		Self-Study	<i>Lab Module #5:</i> Dentinogenesis and Dentin
Wednesday, Feb 27 10:00 – 11:50 AM	<i>Lecture:</i> Amelogenesis and Enamel	Wheater	PowerPoints
Friday, Feb 29 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #6:</i> Amelogenesis and Enamel
Wednesday, Mar 5 10:00 – 11:50 AM	MID-TERM EXAM	Wheater	
Friday, Mar 7 1:00 – 3:50 PM Virtual Lab	IMAGE EXAM 1		Online posted on Blackboard

Wednesday, Mar 12 10:00 – 11:50 AM	<i>Lecture:</i> Cementogenesis, Cementum, Root Formation	Wheater	PowerPoints
Friday, Mar 14 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #7:</i> Cementogenesis, Cementum, Root Formation
Wednesday, Mar 19 10:00 – 11:50 AM	<i>Lecture:</i> Periodontal Ligament and Alveolar Bone	Wheater	PowerPoints
Friday, Mar 21 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #8:</i> Periodontal Ligament and Alveolar Bone
Wednesday, Mar 26 10:00 – 11:50 AM	<i>Lecture:</i> Pulp	Wheater	PowerPoints
Friday, Mar 28 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #9:</i> Pulp
Wednesday, Apr 2	<i>Spring Break</i>		
Friday, Apr 4	<i>Spring Break</i>		
Wednesday, Apr 9 10:00 – 11:50 AM	<i>Lecture:</i> Oral Cavity	Wheater	PowerPoints
Friday, Apr 11 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #10:</i> Oral Cavity
Wednesday, Apr 16 10:00 – 11:50 AM	<i>Lecture:</i> Salivary Glands	Wheater	PowerPoints
Friday, Apr 18 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #11:</i> Salivary Glands
Wednesday, Apr 23 10:00 – 11:50 AM	<i>Lecture:</i> Gingiva	Wheater	Powerpoints
Friday, Apr 25 1:00 – 3:50 PM Virtual Lab		Self-study	<i>Lab Module #12:</i> Gingiva
Wednesday, Apr 30 10:00 – 11:50 AM	Review for Final Exam		
Friday, May 2 1:00 – 3:50 PM Virtual Lab	IMAGE EXAM 2		Online posted on Blackboard

The Final Examination will be given during the Final Exam Period and the date will be announced.