TEXAS CHIROPRACTIC COLLEGE

DIVISION OF BASIC SCIENCES

DEPARTMENT OF ANATOMY

Course Syllabus

Course Title: Histology **Course Number: AN 1542**

Time Requirement: (hours/week) **Credit Units: 5 credits**
Lecture: 4 hours
Lab: 2 hours

Days and Times of Course: Lectures: Monday: 1:00 -2:00 in R-204
Tuesday: 11:00 -12:00 in R-204
Wednesday: 3:00-4:00 in R-204
Friday: 12:00-1:00 in L-206

Lab: Thursday: 10:00-12:00 in LB-1

Trimester/Year: Summer, 2010
Contact Information:
Course Professor: Isis Zaki, M.D., M.S., Ph.D.
Office: 321 (AUD)
Office hours: Monday-Friday: open (no appointment needed)
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Scholar360 address: http://scholar360.com/txchiro/
Phone: (281) 998-6094

Lab Professor: Tom Schultea, Ph.D
Office: Smith Building

Holidays:

- **Memorial Day: Monday May 31**
- **Independence Day: Monday July 5**
- **Homecoming: July 15-17**

General Course Description:
This course is devoted to the study of the microscopic structure of cells, tissues and organs of various systems of the human body with emphasis on the nervous, muscular and skeletal tissues. Instruction is carried out in lecture and laboratory sessions. Labs include PowerPoint presentations of histological slides, reviews of slides (online and from CD), functional correlations assignments and I-clicker exercises.

The course is primarily concerned with the relationship between microscopic structure and function, which is one of the chiropractic principles underlying health and disease states. Clinical correlations are also highlighted to demonstrate relevance to future clinical experiences.

Course Objectives: At conclusion of this course, a successful student should be able to:
(1) Know the different cellular components and their overall functions.
(2) Be familiar with the histologic structure of the four basic tissues of the body.
(3) Understand the microscopic structure of the integumentary, cardiovascular, lymphatic, digestive, respiratory, endocrine, urinary, male and female reproductive systems

Learning outcomes: At the end of this course, students should be able to:
(1) Correlate the microscopic structure with the function of hemopoietic, skeletal, muscular and nervous tissues.
(2) Apply relationship between structure and function of above tissues to relevant clinical situations.
(3) Correlate microscopic structure with function of organs of the following systems: Integumentary, cardiovascular, lymphatic, digestive, respiratory, endocrine, urinary, male and female reproductive systems.
(4) Apply relationship between structure and function of above systems to relevant clinical situations.

CCE Competencies:
The council on Chiropractic Education has set competencies that are required for the graduate of any Doctor of Chiropractic Program. Many of these competencies are indirectly touched on by courses in the Basic Science Department. An example is listed below.
Diagnostic studies**:**
"Identify the pathophysiologic process responsible for the patient's clinical presentation, and understand the natural history of the disorder"
Relationship to course content**:**
Histology is a foundation course in Basic Science. Knowledge obtained in this course serves as a building block for the understanding of normal cellular anatomy. Before any pathology can be diagnosed, normal microscopic structure of tissues must be understood.

Teaching Philosophy:
- Prompting students for learning and creating an exciting teaching atmosphere through asking questions about their levels of knowledge on various topics of the course and relating them to clinical conditions that they might face in the future.
- Asking students during lectures to keep them alert and attentive and to enforce the lecture material and clarify missed or difficult concepts. It also serves as a rapid feedback mechanism about their level of understanding and directs the instructor to clarify certain topics of the course.

Student Responsibilities
This program prepares students to be good primary health care providers.
Students should act professionally to meet the challenges of such program by coming to class on time, by being ready to learn and by paying attention. Side talks during lectures or labs are not

tolerated. Students should make the most of the time in class and ask questions. Every student should participate in answering questions during lectures and in the reading assignments in the labs and at home.
Working on any material other than class material is not accepted.
Interruption of the class by any type of misconduct will subject the student to a penalty.
Use of the lab tops for anything not related to the topic being discussed in class (e.g., e-mailing, internet, etc.) will subject the student to an academic penalty.
Sleeping in the class is NOT accepted and is considered as absence.
If a student leaves the class without excuse, he/she will not be allowed to come back.

Cellular Phones:
Electronic communication devices are to be turned off or placed in silent mode when in classroom. These devices are NOT allowed to be on your person during testing situations. Cellular phones may NOT be answered during class time with prior permission from the faculty member. Texting or e-mailing is NOT allowed during class time. Cell phones will be taken if used during class time.
There is no first time warning. Failure to comply with these rules will subject students to administrative/academic penalty.

Exam Protocol:
Students should take the scheduled lecture and lab examinations and quizzes on time.
Students are expected to do their own work during exams. **Academic dishonesty will not be tolerated** and will result in the student being taken before academic affairs. Students will be asked to sit every other seat and every other row during exams. All note packs, books, backpacks should be placed in the front of the classroom. Hats are to be turned back. No cell phones, pagers or lab tops will be allowed out on the desks. Students who come late to exams are not allowed extra time. Students are not allowed to take exams if students have submitted their answers and left the classroom.

Modes of Instruction:
(1) Lectures with PowerPoint presentations.
(2) Self-directed learning assignments.
(3) Clinical correlations.
(4) I-clickers

Required Texts:
(1) Lecture Note Pack, available on scholar360 and at the library.
(2) Di Fiore's Atlas of Histology, Erocschenko,V P. 11th edition, LWW, 2008

Recommended Textbooks:
(1) Basic Histology, Janqueira,C; Carneiro J and Kelly R O. Appleton and Lang, 2005
(2) Histology, Michael Ross, Kaye and Pawlina, 5th edition, LWW, 2007
(3) Review Questions For the NBCE Examinations. Parts I and II, Mosby, 2006

<u>Required Lab Material:</u>
- The Di Fiore's Atlas of Histology

Assessment of Student's Achievements

- Lecture examinations in the multiple choice questions format
- Written Assignments
- Quizzes

Grading Method: Lecture Exam #1 **= 50 points**
Lecture Exam #2 **= 50 points**
Lecture Exam #3 **= 50 points**
Quizzes: **= 20 points**
Final Lecture Exam (comprehensive) = **80 points**
3 Lab Exams: **50 x 3** = **150 points**
Total points **= 400**

Your final grade = your total points/400x100
Neither extra credit points nor curving of scores will be considered for final grades

Grading Scale:
A= 90-100%
B= 80-89%
C= 70-79%
F= 69% and below

Make Up Examination Policy: A new policy approved by TCC cabinet on June 9, 2009

3.0 POLICY

3.1 Students must notify faculty before missing any examination. If an examination is missed for good and sufficient reason and the student has notified the faculty member in advance, a make-up examination may be given subject to a fee of $40.00. The fee for the make up examination is a minimum of $75.00 if a standardized patient is required for the exam. Additional required standardized patient hours may increase this $75.00 minimum fee. All intra-term examinations must be made up prior to final examinations. Missed final examinations must be made up within the first week of the next trimester. A student may be allowed a maximum of two missed examination dates for good and sufficient reason per trimester. These two missed examination dates are for all enrolled courses in a trimester, not for each individual course. Any request for additional make up examinations will require documentation substantiating the absence and must be approved by the Dean of Academic Affairs.

5.0 PROCEDURES

5.1 The student must notify the instructor that he/she will miss a scheduled examination prior to the administration of the exam.

5.2 The student will request a Make Up Examination Request form from the Assessment Center.
5.3 The Assessment Center will verify that the student has not exceeded the two allowed missed examination dates before providing the student with the Make Up Examination Request Form. (If the student has exceeded the two allowed missed examination dates, follow procedures 5.11 and 5.12 before proceeding to 5.4)
5.4 The student will sign an authorization for the appropriate make up examination fee to be charged to his/her account by the Business Office.
5.5 The faculty member will sign the Make Up Examination Request form, verifying that the student is eligible for a make up examination.
5.6 The faculty member will provide a make up examination to the Assessment Center prior to the scheduled make up examination date.
5.7 The Assessment Center will provide a secure testing environment for the make up examination.
5.8 After administration of the make up examination, the Business Office will debit the student's account and credit the student scholarship fund and, if applicable, the standardized patient account for the appropriate amounts.
5.9 The Assessment Center will return the completed examination to the faculty member for grading.
5.10 If the final examination from the previous trimester is being made up, the faculty member will provide the Registrar's Office with the student's final course grade prior to the end of the add/drop period.
5.11 If the student has exceeded the two allowed missed examination dates and is requesting an additional make up examination, the student will submit substantiating documentation to the Dean of Academic Affairs.
5.12 Upon submission of the substantiating documentation, the Dean of Academic Affairs will determine if an additional make up examination will be allowed.

THERE ARE NO MAKE UP EXAMS FOR THE MISSED LAB EXAMS OR QUIZZES

Incompletes: Refer to Student Handbook:
Course assignments and examinations must be completed prior to the final examination in this course. Assignments and examinations not completed receive **a grade of zero**.

Course Withdrawal:
The student completes a withdrawal form in the registrar's office. Withdrawal is allowed during the appropriate time of the trimester with a grade "W". Withdrawal after the date will result in a grade of "WF".

Attendance policy:
Attendance in all lectures and labs is required. A student is subject to academic penalty if absences exceed **10% (8 hours).** Absences exceeding 20% subject a student to dismissal from a course and a **WF grade**. **Three (3) incidences of tardiness may constitute an absence.**

Retention of Examinations:
The course professor will retain all the scantrons. If any student desires to review any exam, he/she can contact the lead instructor to set an appointment.

ANY DOCUMENTATION OF COURSE GRADES WILL BE KEPT BY THE LEAD INSTRUCTOR UNTIL THE SECOND FRIDAY OF THE FOLLOWING TRIMESTER. AFTER THAT TIME, THE GRADES MAY NOT BE REVIEWED.

Disclaimer statement:

The syllabus is a representation of the course content, organization and evaluation procedures. The faculty teaching this course reserves the right to reasonably alter the sequence of activities, evaluation and assignment dates. Every effort will be made to inform the class members of such changes. Students are responsible to follow the syllabus and any change instituted by the faculty.

ALL CELL PHONES AND PAGERS SHOULD BE TURNED OFF DURING LECTURES, LABS AND EXAMS

HISTOLOGY (AN 1542) COURSE OUTLINE, SUMMER 2010

Weeks	Topics
Week 1	- Cytology
Week 2	- Epithelial tissue
Week 3	- Connective tissue proper - Cartilage
Week 4	- Bone
Week 5	- **Lecture Exam # 1 (Cytology, Epithelium, CT, Cartilage, Bone)** - Blood - Muscle tissue
Week 6	- Nervous tissue
Week 7	- Integumentary system
Week 8	- **Lecture Exam # 2 (Blood, Muscle, Nervous & Integumentary system)** - Circulatory system - Lymphatic tissue - Oral Cavity
Week 9	- Digestive Tube - Digestive Glands
Week 10	- Respiratory system
Week 11	- **Lecture Exam # 3 (Cir., Lymph., Digestive & Respiratory systems.)** - Endocrine system
Week 12	- Urinary system - Male reproductive system

Week 13	- Female reproductive system - Breast.
Weeks 14&15	**- Final Lecture Exam: COMPREHENSIVE**

Histology Lab Schedule

Weeks	Topics
Week 1	- Preparation and Staining of Histological Slides - Epithelial tissue
Week 2	- Connective tissue proper - Cartilage
Week 3	- Bone - Blood
Week 4	- Muscular tissue - Nervous tissue
Week 5	- **Lab Exam # 1 (Epi., CT, Cartilage, Bone, Blood)** - Nervous tissue - Integumentary system
Week 6	- Circulatory system - Lymphoid tissue
Week 7	- Oral cavity and digestive tube
Week 8	- Accessory digestive glands
Week 9	- **Lab Exam # 2 (Muscle, Nervous, Integumentary, Circulatory, Lymphatic, Oral cavity, Digestive tube)** - Respiratory system - Endocrine system
Week 10	- Urinary system - Male reproductive system
Week 11	- Female reproductive system - Female breast
Week 12	- Final review
Week 13	**- Final Lab Exam (Digestive glands, Respiratory, Endocrine, Urinary, Male and Female Reproductive Systems, Breast)**

Note: the dates of the quizzes : TBA