

TEXAS CHIROPRACTIC COLLEGE
DIVISION OF BASIC SCIENCES
DEPARTMENT OF PATHOLOGY AND MICROBIOLOGY
COURSE SYLLABUS

Course Title: Systems Pathology II

Course number: PA 4330

Trimester: Summer, 2010

Credit hours: 3 credits (45 hours)

Course meeting time:

Total Lecture Hours (*No labs*): 45 (3 hours/week):

- Monday: 1:00-1:54, R-200**
- Tuesday: 1:00-1:54, R-200**
- Friday: 2:00-2:54, L-203**

Course professor: Dr. Ezzat Mikhail, M.D., D.T.M. & H., D.M. Sc., M.S., Ph. D.
Chair of Pathology and Microbiology Department

Course prerequisites: General Pathology, Endocrine and Neurophysiology

Office hours: Monday through Friday,
Any time from 9:00-4:00 (no appointment required).

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Scholar 360 address: <http://scholar360.com/txchiro/>

Holidays:

- Memorial Day: Monday, May 31**
- Independence Day: Monday, July 5**
- Homecoming: Thursday and Friday, July 15-17**

Required Readings:

- (1) Basic Pathology: Kumar, V.; Abbas, A. K.; Fausto, N. and Mitchell, R. N., 8th edition, Saunders, Philadelphia, 2007.
- (2) Lecture Note Pack: A hard copy of the lecture notes is provided by the instructor in the library for the students to make copies.

Suggested readings:

Review Questions For the NBCE Examinations. Pat I and II, Mosby, 2006

COURSE DESCRIPTION:

This course presents the pathologies of hematopoietic, vascular, cardiac, and respiratory systems. Emphasis is given to pathogenesis and morphologic changes that occur. Case-based approach utilizes student's knowledge in critical thinking and reasoning to reach a proper diagnosis.

COURSE OBJECTIVES:

After studying each chapter, the student should be familiar with the following topics:

I. DISEASES OF BLOOD CELLS AND BLOOD COAGULATION:

- (1) Understand the blood indices and how to calculate them.
- (2) Be aware of the classification of anemias.
- (3) Know sickle cell anemia, spherocytosis and thalassemias, realize the cause, clinical and laboratory findings.
- (4) Be aware of iron deficiency anemia.
- (5) Have a knowledge of anemia due to deficiency of vitamin B12/folic acid.
- (6) Be interested in the major types of lymphomas and leukemias, understand the qualitative and quantitative changes in the peripheral blood
- (7) Know the types of Hodgkin lymphoma according to the microscopic pattern and the importance of this distinction.
- (8) Appreciate the elements of normal hemostasis
- (9) Understand bleeding due to platelet disorders/deficiency of coagulation factors.

II. DISEASES OF THE HEART:

- (10) Be familiar with the etiology of congestive heart failure and understand the clinical findings of right and left-side heart failure.
- (11) Be aware of the syndromes of ischemic heart disease
- (12) Know the complications of myocardial infarct. Appreciate the usefulness of cardiac troponin and creatine kinase assays in the assessment of chest pain
- (13) Understand the pathogenesis of acute rheumatic fever and rheumatic heart disease.
- (14) Know the hemodynamic changes that result from mitral stenosis and mitral regurge.
- (15) Be aware of the effect of chronic hypertension on the heart and blood vessels.
- (16) Realize the significance of congenital heart diseases, their impact on blood flow and cardiac chambers.
- (17) Know the types of cardiomyopathy and their pathogenesis.
- (18) Be familiar with the causes and types of pericarditis

III. DISEASE OF THE BLOOD VESSELS:

- (19) Understand the pathological processes important in the formation of an atheroma.
- (20) Be aware of the most important complications of atherosclerosis
- (21) Know the cause of most aneurysms
- (22) Be familiar with the etiology of vasculitis, realize the involved blood vessels and the clinical significance of each type.
- (23) Have a knowledge of the clinical importance of thrombophlebitis

IV. DISEASES OF THE RESPIRATORY SYSTEM:

- (24) Know the types of atelectasis
- (25) Be familiar with the types of asthma, realize the pathogenesis and the underlying pathology.
- (26) Be aware of the main categories of chronic obstructive and restrictive lung diseases and their pathogenesis
- (27) Understand the types of emphysema and the role of smoking.
- (29) Have a good grasp of the role of smoking in respiratory diseases.
- (30) Realize the consequences of pulmonary thromboembolism.
- (31) Be familiar with the two main anatomic varieties of pneumonia “community-acquired pneumonia” and “nosocomial pneumonia”
- (32) Have knowledge of the etiology, pathological lesions and clinical features of lung abscess and bronchiectasis
- (33) Be aware of lung lesion in primary TB and how it differs from secondary TB.
- (34) Know the classification, risk factors and prevalence of bronchial carcinoma.

LEARNING OUTCOMES:

- (1) The student must demonstrate ability to:
 - List the types of anemias and the associated morphological changes.
 - Distinguish the qualitative and quantitative disorders of WBCs.
 - Explain the different mechanisms of bleeding disorders.
 - Describe the diseases of the cardiovascular system.
 - Identify the upper and lower respiratory tract diseases.
- (2) The student should be able to describe the etiology, pathogenesis and histological changes that occur in any organ/system during the disease state. He/she should be able to interpret the clinical course and the possible outcomes of the different diseases.
- (3) The student should demonstrate the ability to assimilate and synthesize the information presented in this course to acquire enough knowledge for clinically-based practice.

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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. One example is given 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:

The course content will enable the students to integrate clinical findings and diagnostic studies, identify the abnormal structural or functional relationships, recognize and correlate significant information and integrate the data in a manner that facilitates reaching a proper diagnosis.

Teaching philosophy:

1. To offer easy comprehensive lectures that explain different topics and how they relate to their career as health care providers.
2. To stress the clinicopathological relationship and how they are similar or dissimilar from other pathologies creating a differential diagnosis.

Student responsibilities:

1. **Student should read the weekly assigned topics from the appropriate chapters of the recommended textbook.**
2. **Active participation in classroom discussions is highly encouraged.**
3. **Students should come to the class in time ready to learn. Side talks during lectures and labs are not tolerated.**
4. **Working on any material other than the class topic is not accepted.**
5. **Interruption of the class by any type of misconduct will subject the student to a penalty. Use of lab tops for anything not related to the topic being discussed in class (e.g. e-mailing, internet, etc.) will subject the students to academic penalty.**
6. **Sleeping in the class is not accepted and is considered as absence.**
7. **If a student leaves the class without excuse, he/she will not be allowed to come back.**

8. **Cellular phones: Electronic communication devices are to be turned off or placed on the silent mode when in classroom. These devices are NOT allowed to be on your person during testing situations. Texting or e-mailing is NOT allowed during class time. Cell phone 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.**

Modes of instruction:

Lectures with PowerPoint presentations.

Assessment of student’s achievements:

- Questions format is the multiple-choice question type.
- Four lecture examinations are scheduled, graded as follows:
 - First Midterm Exam = 50 points
 - Second Midterm Exam = 50 points
 - Third Midterm Exam = 50 points
 - Final Exam = 50 points
- Five quizzes = 5 x 5 = 25 points.
- Total points = 225 points (Final grade= student’s total points ÷225 x 100)

- Neither **extra credit points nor curving of the scores are considered in the final grades**

Grading scale:

- A = 90%-100%
- B = 80%-89%
- C = 70%-79%
- F = below 70%

Attendance Policy:

- (1) Regular and punctual attendance at all scheduled classes is expected. A student is subject to academic penalty if absences exceed **10% (4.5 hours)**. Absences exceeding **20% (9 hours)** subject a student to dismissal from a course.
- (2) Three incidences of tardiness may constitute an absence.
If justifiable cause can be shown for the absenteeism, the student may maintain enrollment in the class.

Examinations:

- (1) 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 will be placed in the front of the room. Hats are to be turned back. No cell phones, pagers or lab tops will be allowed out on the desks.
- (2) **No make-up exams for quizzes**
- (3) **Make-up for lecture exams will be in an essay format**

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.

Course Withdrawal:

The student completes a withdrawal form in the registrar's office. Withdrawal is allowed through the 40th day of the trimester with a grade "W". Withdrawal after the date will result in a grade of "WF".

Students with disabilities: Refer to Student Handbook

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 to benefit students.

COURSE OUTLINE AND EXAMINATION SCHEDULE

Weeks	Topics	Reading Assignments
1	- Introduction to scope of the course - Cardiac Pathology: Heart failure	Chapter 11
2	- Cardiac Pathology: Coronary artery disease (angina, myocardial infarction)	Chapter 11
3	- Cardiac Pathology: Cardiomyopathy, Congenital Heart diseases - Diseases of the Pericardium - Quiz # 1	Chapter 11
4	- Exam #1: (Cardiac pathology, Lecture exam) - Diseases of Blood Vessels: Arteriosclerosis, Hypertensive vascular disease	Chapter 10
5	- Diseases of Blood Vessels: Aneurysms, Vasculitis, Tumors - Quiz # 2	Chapter 10
6	- Exam #2 (Diseases of blood vessels, Lecture exam) - RBC disorders: Hemorrhagic and Hemolytic anemias	Chapter 12
7	- RBC disorders: Iron deficiency anemia, Megaloblastic and Aplastic anemias - Quiz # 3	Chapter 12
8	- WBC disorders: Lymphoma	Chapter 12
9	- WBC disorders: Lymphomas and Leukemias	Chapter 12
10	- Bleeding disorders - Quiz # 4	Chapter 12
11	- Exam #3: (Diseases of Hematopoietic and Lymphoid systems, Lecture exam) - Pulmonary Pathology: Atelectasis , Obstructive and Restrictive lung diseases	Chapter 13
12	- Pulmonary Pathology: Infections (Pneumonias, TB, Lung abscess)	Chapter 13
13	- Pulmonary pathology: Vascular lung diseases Tumors of lung Diseases of pleura, Disease of the upper respiratory tract - Review - Quiz # 5	Chapter 13
14 & 15	- Final Exam (Pulmonary pathology, Lecture exam)	

Student Honor Code

Student Name: _____

Course: Pathology: Systems II

I have read Texas Chiropractic College's policy on Academic Dishonesty as published in the 2006-2008 Student Handbook pages 47-48, understand its provisions, and pledge my honor that I will not violate it.

Printed Name

Signature

Date