



The Florida State University
College of Medicine

BMS 6601

Pathology 201

Fall 2010

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Instructors

Course Director

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Room 2350-K

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jose.diaz@med.fsu.edu (Please contact by email)

Faculty

Sebastian R. Alston, M.D.

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Facilitators

Small group, laboratory and PBL facilitators are drawn from the FSUCOM faculty and graduate students.

Course Overview

Course Goals

Virchow was called the “Pope” of Medicine and is considered the father of Pathology and modern medicine. His dictum “all cells come from other cells” altered the scientific views and the direction of medicine at the time. He established the “cellular theory” as the origin of disease and thought disease was produced by disturbances in the structure and function of cells.

The Pathology 201 Course is composed of the Immunology section, the General Pathology Section and the Cardiovascular and Respiratory Organ Systems section. During the fall semester at FSUCOM, Pathology 201 covers the Immunology section in which you learn about the basic mechanisms of host defense against infections and tissue damage, the diseases associated with inappropriate immune responses, such as immunodeficiencies, hypersensitivity reactions and autoimmune diseases. Pathology 201 course continues with the basic pathophysiology of the mechanisms of disease in Medicine (General Pathology). The knowledge gained from study of these basic mechanisms is subsequently applied to Systemic Pathology which begins toward the end of the fall semester with the Cardiovascular and Respiratory Organ Systems and continues during the spring semester with the Pathology 202 Course and the clerkships in the 3rd and 4th years. Material from systemic pathology will be used to reinforce the general pathology/pathophysiology principles learned during this course. This pathology course will incorporate gross pathologic, microscopic, laboratory, radiologic, and other material to assist you in understanding the disease processes and prepare you for licensing examinations. ***In summary, the knowledge gained from the study of pathology will integrate with other courses to provide you with a foundation for future patient care.***

Learning Objectives

Demonstrate knowledge, skills or ability on the following:

1. Definition of Pathology and the activities, tools, and roles involved in the practice of pathology.
2. General categories of disease conditions and the general mechanisms of disease.
3. Vocabulary to describe the immune system and its components.
4. Immune cell structure and function.
4. Immune cellular interactions.
5. Tissues that are part of the immune system.
6. Body's immune reactions to infections and tissue injury.

7. To problem solving and diagnostic reasoning to diagnose immunologic diseases.
8. To correlate microbial infection with immunologic findings.
9. To correlate immunologic conditions with pathologic findings.
10. Vocabulary that allows for description of disease processes and communicating findings to other health care workers and to patients.
11. Molecular and cellular basis for inflammatory disease states.
12. Molecular, genetics and cellular basis for neoplastic diseases.
13. Pathophysiology of pathologic conditions encountered in clinical practice.
14. To recognize abnormal gross and microscopic findings in the context of the clinical problem.
15. Interpretation of laboratory findings associated with disease conditions and be able to use the laboratory for diagnostic purposes, including indications for ordering and proper specimen collection.
16. Appropriate application of autopsy and surgical pathology findings to quality assurance for improvement of clinical practice.
17. To form differential diagnoses based upon pathologic findings.
18. Use of clinical-pathologic correlation to understand disease conditions.
19. Radiologic findings that accompany pathologic lesions.
20. To problem solving ability when presented with patient scenarios including pathologic findings (small group laboratory discussions and PBLs).
21. Skills in evidence-based medicine to obtain information involved in solving case-based problems.
22. To meet compliance standards when ordering laboratory tests.
23. Professionalism in working with colleagues and faculty.
24. Attitude of care and concern for patients and their families affected by pathologic disease states.
25. Treat patients, as represented by laboratory, pathology, and radiologic specimens and records, with respect, dignity, and confidentiality.
26. Fundamental mechanisms of cell injury, repair and adaptation.
27. Common neonatal, pediatric, congenital and common hereditary diseases and their diagnosis.
28. Pathogenesis and immunologic aspects of aging and principles of aging at the clinical, cellular and sub-cellular levels.
29. Pathogenesis, clinical, pathological and laboratory features of hemodynamic, vascular, cardiac and respiratory diseases.

30. To locate appropriate resources (e.g. journal articles) and apply the information to small group cases and other pathologic discussions/study.

Integration with FSU COM Goals and Objectives

Knowledge

- * Demonstrate knowledge about the application of the scientific bases of health, disease, and medicine to common and high impact medical conditions in contemporary society.
- * Describe the development, structure and function of the healthy human body and each of its major organ systems reviewed on this course (cardiovascular and respiratory) at the macroscopic, microscopic, and molecular levels.
- * Recognize and discuss the implications of altered structure and function (pathology and pathophysiology) of the body and its major organ systems reviewed on this course that is seen in the various diseases and conditions.
- * Identify changes in the structure and function of the human body associated with the aging process and be able to distinguish normal changes associated with aging from those that denote disease.
- * Describe the molecular basis of diseases and the way in which they affect the body (pathogenesis).
- * Demonstrate the ability to use basic biobehavioral and clinical science principles to analyze and solve problems related to the diagnosis, treatment, and prevention of disease.
- * Recognize the implications of cultural, social, economic, legal, and historical contexts for patient care.
- * Describe strategies to support lifelong learning via both print and electronic sources to assist in making diagnostic and treatment decisions (e.g., practice guidelines) and to remain current with advances in medical knowledge and practice (e.g., medical information data bases).

Skills

- * Demonstrate the appropriate use of laboratory tests and radiographic studies in making diagnostic and treatment decisions.
- * Demonstrate the ability to evaluate the patient's medical problems and to formulate accurate hypotheses to serve as the basis for making diagnostic and treatment decisions.
- * Demonstrate the ability to acquire new information and data and to critically appraise its validity and applicability to one's professional decisions, including the application of information systems technologies for support of clinical decision-making.

Attitudes/Behaviors

- * Demonstrate professionalism and high ethical standards in all aspects of medical practice, specifically competence, honesty,

integrity, compassion, respect for others, professional responsibility and social responsibility.

Course Format

Lectures/Discussions/Tutorials

Check locations for course activities in your FSUCOM master OUTLOOK class calendar. Note that due to room scheduling conflicts and other exigencies, the schedule is subject to change and the student is advised to check the electronic OUTLOOK version of the schedule frequently. Changes in the schedule will also be e-mailed to the class. The lectures are designed to cover the course content in an organized fashion, illustrating the concepts and allowing time for you to ask questions.

Small Groups Discussions (SMG)

Check the schedule for times and locations. You will be assigned to one of the learning community team rooms. Assignments for small group sessions will be made largely on the basis of College of Medicine policies and procedures, the number of groups, and room availability. To encourage more active participation among students, one student would be acting as a **team leader** of the SMG for each particular session. Students will rotate to take this role. The student team leader will be appropriately instructed and supervised by a **faculty facilitator** (one faculty for each large room rotating through the small rooms).

The last 30 minutes of each small group discussion will be a wrap up session given by faculty at the lecture room. Although attendance to lectures is not mandatory (lectures are video recorded and are available on line), attendance to all SMG discussions is mandatory for all year 2 students. SMG sessions are not video recorded, are very interactive and constitute a unique experience that must be taken on real time. While initial learning occurs by attending/reviewing and reading lecture and text book materials, the SMG discussions are the **"application" phase** of the learning process and as such, reinforce and place into clinical context your knowledge, testing your skills and proficiency on the six competency domains adopted at FSUCOM: 1) patient care, 2) medical knowledge, 3) practice-based learning, 4) communication skills, 5) professionalism and 6) system-based practice.

While it is not possible to be professionally competent without adequate knowledge, the knowledge alone does not guarantee competency, which is the practical translation of medical knowledge and some other additional skills necessary to practice medicine with the highest standards. Our SMG sessions are based on a "clinical case presentation" model. These sessions test your knowledge and competency in a simulated environment closely resembling real clinical situations.

The SMG sessions are a unique opportunity to apply your knowledge while interacting with faculty and other students. Students will be evaluated by student team leader and faculty for attendance and performance, including professionalism. Lack of attendance will be reported by the course coordinator to Student's Affairs. Lack of attendance which is not excused from Student's Affairs will be penalized with 1 point drop on the final

grade for each missed session. Since there are 9 sessions assigned to this course, a potential drop of 9 points will accumulate when missing all sessions without an excuse. This could make almost impossible to obtain a grade A on this course. Therefore, you are urged to attend all sessions unless a qualified excuse is granted by the Student's Affairs Office and the course director. In addition, some questions on the quizzes could be inspired on the cases discussed during the small group sessions.

CPC

The CPC are cases presented by groups of four to five medical students in a 40 minutes formal presentation followed by time for questions and according to the following format:

1. Case history, workup tests as per differential diagnosis and final diagnosis
2. Symptoms in a typical case
3. Pathophysiology of the disease
4. Epidemiology (occurrence, routes of transmission, prevalence, etc.)
5. Treatment methods
6. Prognosis

A group of faculty (pathologists and clinicians) will attend the presentations and grade it to a maximum of 20 points. Each integrating member of the group who presented the case will obtain the same individual score (group score transposed to each individual). Attendance to the CPC is mandatory for all year 2 students. The accumulated points for the CPC will not impact on the Pathology 201 course but would be integral part of the grade for the Pathology 202 course. For those students presenting their CPCs during the last block of the 2009 Fall semester (those presenting cardiovascular and pulmonary CPCs), their points will be transferred to the Pathology 202 course since the CPCs are complimentary to Systemic Pathology, most of which will be covered during the Spring 2010 semester.

Competencies

FSUCOM – Competencies -Course Title BMS 6601		
Competency Domains	Competencies Covered in the Course	Methods of Assessment
Patient Care	X	Internal Exams, Quizzes and Case Study Problem Solving in SMG Discussions
Medical Knowledge	X	Internal Exams, Quizzes and NBME customized Exam
Practice-based Learning	X	Case Study Problem Solving in SMG Discussions and Clinicopathological Correlations; evaluated by observation from

		faculty facilitators, course director and cross-peer student evaluation
Communication Skills	X	Case Study Problem Solving in SMG Discussions and Clinicopathological Correlations; evaluated by observation from faculty facilitators, course director and cross-peer student evaluation
Professionalism	X	Evaluated by observation from faculty facilitators, course director and cross-peer student evaluation during SMG and Clinicopathological Correlations
System-based Practice	X	Evaluated by observation from faculty facilitators and course director when working on the forensic and/or laboratory medicine aspects of the cases presented during SMG
NOTES:		

Policies

Americans with Disabilities Act

Candidates for the M.D. degree must be able to fully and promptly perform the essential functions in each of the following categories: Observation, Communication, Motor, Intellectual, and Behavioral/Social. However, it is recognized that degrees of ability vary widely between individuals. Individuals are encouraged to discuss their disabilities with the College of Medicine's [Director of Student Counseling Services](#) and the FSU Student Disability Resource Center to determine whether they might be eligible to receive accommodations needed in order to train and function effectively as a physician. The Florida State University College of Medicine is committed to enabling its students by any reasonable means or accommodations to complete the course of study leading to the medical degree.

[The Office of Student Counseling Services](#)

Medical Science Research Building
G146

Phone: (850) 645-8256 Fax: (850) 645-9452

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center

97 Woodward Avenue, South

Florida State University

Tallahassee, FL 32306-4167

Voice: (850) 644-9566

TDD: (850) 644-8504

sdrc@admin.fsu.edu

<http://www.fsu.edu/~staffair/dean/StudentDisability>

Academic Honor Code

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. (Florida State University Academic Honor Policy, found at <http://www.fsu.edu/~dof/honorpolicy.htm>.)

Attendance Policy

The College of Medicine has detailed attendance policies as they relate to each cohort and events that conflict with course schedules. See pages 27-29 of [FSUCOM Student Handbook](#) for details of attendance policy, notice of absences and remediation.

Required Materials

Required Texts

PATHOLOGIC BASIS OF DISEASE, 8th edition, by Robbins and Cotran.

BASIC IMMUNOLOGY, 3rd Edition, by Abbas and Lichtman.

PLEASE NOTE THAT STUDENTS ARE EXPECTED TO READ THE TEXTBOOKS. POWERPOINT SLIDES WILL NOT SUBSTITUTE FOR THE REQUIRED READINGS.

PowerPoint Lectures

The "Power Point Lectures" section has an electronic version of the PowerPoint lectures for the course. These are designed to supplement and organize the material in the textbook, but not be a complete substitute for it. **Reading the assigned chapters in Robbins is required.** The posted material represents subsets of the slides for a lecture which are posted prior to a lecture. Last moment changes or corrections may occur from time to time, thus the official version is the one available when the lecture begins. Copyright and other restrictions may prevent some images and other materials from being distributed.

Suggested Materials

Recommended Text

Robbins and Cotran REVIEW OF PATHOLOGY, 3rd Edition, by Klatt and Kumar

Electronic Supplement

WebPath, the Internet Laboratory for Pathology Education (<http://www.med.fsu.edu/webpath/webpath.htm>) is highly recommended for supplementation of the materials in the

textbook, lecture materials, small group discussions and problem based learning (PBL) exercises.

Grading

Assignments and weights

The material for examinations and quizzes will come from lectures, SMG sessions, and the textbook.

Exams

The format for examinations will be as follows:

Written examination items: multiple choice questions (single best answer and extended matching) based upon illustrations of gross and microscopic lesions, radiologic images, and charts, graphs, or drawings, from material covered in small group discussions, PBLs, textbooks, and lectures.

There will be four integrated 4-hour block examinations in the fall semester. These examinations will cover material in all the courses for the four weeks prior to each examination. The pathology component of each examination may include the following types of questions

Multiple choice written questions without illustrations

Multiple choice written questions with illustrations

There will be 9 SMG sessions for Pathology 6601 in the fall semester and 8 quizzes, 2 per block on the second and third week of the each block. The questions for the quizzes will test only the materials (lectures and SMG discussions) covered on the prior week. Thus, the final grade in Pathology 201 (BMS-6601) will be determined as follows:

Exam	Topic	Points
Block 1	Immunology	60
Block 2	Cell Injury, Inflammation, Neoplasia, Nutritional	60
Block 3	Genetic, Placental-Perinatal, Pediatric, Aging, Occupational, Trauma, Forensic, Vascular-Hemodynamic	60
Block 4	Cardiovascular and Respiratory Systems	60

Quizzes	
8 integrated quizzes	60 points

Thus, each block exam contributes approximately 20% to final grade (four blocks = 80%) and the combined eight quizzes contribute approximately another 20%, with approximately a final 300 possible points assuming none of the questions would be deleted.

Grading Scale

Grading for the course is based upon a numeric score calculated as a percentage achieved from all possible points, as follows:

Grade	Percentage
A	> 90.0 % correct
B	87.0 – 89.9 % correct
B+	80.0 – 86.9 % correct
C+	77.0 – 79.9 % correct
C	70.0 – 76.9 % correct
D	65.0 – 69.9 % correct
F	< 64.9 % correct