



The Florida State University
College of Medicine

BMS 6602

Pathology 202

Spring 2012

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Instructors

Course Director

Jose Diaz, M.D., Ph.D.

Room 2350-K

Office Hours: 8am-6pm (12-2:00 pm preferred) by appointment.

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

Faculty

John Blackmon, M.D. (Assistant Course Director)

Office Hours: 8am-6pm (12-1:00 pm preferred) by appointment.

john.blackmon@med.fsu.edu (Please contact by email)

Facilitators

Small group facilitators are drawn from the FSUCOM faculty

Course Overview

Course Goals



Rudolf Virchow (1821 - 1902)

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 202 course in the spring semester covers the pathophysiology of disease in medicine by organ systems for all the organs (Systemic Pathology), except for the cardiovascular and respiratory systems which were already covered in the Pathology 201 course. Material from the systemic pathology lectures and small group discussions will be used to elaborate further about the general pathology/pathophysiology principles learned during the Pathology 201 course. There is no specific section for Laboratory Medicine in this course. However, all important laboratory tests, the interpretation of their results and the guidelines for its appropriate and cost-effective ordering are covered in the lectures and the small group discussions about each organ system in the Pathology 202 course (also in Doctoring) for each specific disease. The knowledge gained from the study of organ system diseases correlates with other courses during the semester, particularly with Doctoring and will be applied to clerkships in the 3rd and 4th years. This 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 as well as provide you with a foundation for future patient care. ***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. Demonstrate knowledge of the molecular, genetic and cellular basis for the diseases affecting the organ systems covered in this course.
2. Demonstrate knowledge of the pathophysiology of the conditions encountered in clinical practice for all the organ systems covered in this course.
3. Demonstrate the ability to recognize abnormal gross and microscopic findings in the context of the clinical problem for all the organ systems covered in this course.
4. Demonstrate the ability to interpret laboratory findings associated with the disease conditions for all the organ systems covered in this course and be able to use the laboratory for diagnostic purposes, including indications for ordering and proper specimen collection.
5. Demonstrate knowledge of the appropriate application of autopsy and surgical pathology findings to quality assurance for improvement of clinical practice.
6. Demonstrate the ability to form differential diagnoses based upon pathologic findings.

7. Demonstrate knowledge of the use of clinical-pathologic correlation to understand disease conditions.
8. Demonstrate knowledge of the radiologic findings that accompany pathologic lesions affecting the organ systems covered in this course.
9. Demonstrate problem solving ability when presented with patient scenarios including pathologic findings.
10. Demonstrate skills in evidence-based medicine to obtain information involved in solving case-based problems.
11. Develop the ability to meet compliance standards when ordering laboratory tests.
12. Demonstrate professionalism in working with colleagues and faculty.
13. Demonstrate an attitude of care and concern for patients and their families affected by pathologic disease states.
14. Treat patients, as represented by laboratory, pathology, and radiologic specimens and records, with respect, dignity, and confidentiality.
15. 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

Locations for all course activities are indicated in the class calendar in OUTLOOK. Materials for each activity can be found on the course's Blackboard site. **Note:** the schedule is subject to change, and the student is advised to check the electronic version of the schedule (OUTLOOK class calendar) frequently. Notification of changes in the schedule will also be e-mailed to the class and posted as Announcements on Blackboard.

Lectures/Discussions/Tutorials

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)

Attendance and participation in all Small Group Discussions is mandatory. You will be assigned to a Team in one of the LCs. Assignments will be posted on Blackboard. 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 LC, rotating through the small rooms).

The last 30 minutes of each SMG will be a wrap up session given by faculty in the lecture room. Attendance to all SMG discussions, including the final wrap-up, is mandatory. 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 in the six competency domains: 1) patient care, 2) medical knowledge, 3) practice-based learning, 4) communication skills, 5) professionalism and 6) systems-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.

Clinical-Pathologic Correlation (CPC)

The CPC are cases presented by groups of four to five medical students in a 40 minute 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

Attendance at the CPC sessions is mandatory for the whole class and not just for the presenters. A group of faculty will attend the presentations and assess it as Outstanding (3), Satisfactory (2) or Unsatisfactory (1). Each member of the group who presented the case will obtain the same individual score. A score of Satisfactory or better is necessary to pass the course.

Competencies

FSUCOM – Competencies –Pathology 202BMS 6602		
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, NBME customized Exam and Problem Solving in SMG Discussions
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: ** Patient care is only evaluated from a simulated perspective; practice-based learning and systems-based learning are minimally and peripherally evaluated.		

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](#))

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 28-30** of [FSUCOM Student Handbook](#) for details of attendance policy, notice of absences and remediation.

BMS 6602 Attendance Policy

"It will be the responsibility of the course/education directors to clearly state in their respective course/clerkship syllabi the implications for having an un-excused absence from a scheduled educational or examination activity in a course or clerkship." For BMS 6602, students with more than 2 such absences in the Fall Term will not receive academic credit for the course and a grade of "F" will be submitted to the Registrar. Students who have an unexcused absence from an examination or a quiz will lose the entire score (points) awarded for that examination or quiz, and the final grade for the course will reflect this loss. Lack of attendance to SMG discussions or CPCs which is not excused from Student's Affairs will be penalized with 1 point drop on the final grade for each missed session.

Required Materials

Required Texts

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

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 on Blackboard has an electronic version of the PowerPoint presentations 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

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

Written examination items will include 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, textbooks, and lectures.

Block Examinations

There will be four integrated block examinations in the spring semester. These examinations will cover material in all the courses for the four weeks prior to each examination. Each of these examinations will include 60 questions from Pathology and may include the following types of questions

Multiple choice questions without illustrations

Multiple choice questions with illustrations

Exam	Topic	Questions
Block 5	Urinary System, Digestive System	60
Block 6	Female and Male Reproductive System, Endocrine System and Head and Neck	60
Block 7	Hematology, Musculoskeletal System: bone, soft-tissues and muscle	60
Block 8	Central and Peripheral Nervous System, Eye and Skin	60

Quizzes

There will be 9 integrated quizzes, 2 to 3 per block, each with approximately 8 questions from Pathology. The questions for quizzes will test only the materials (lectures and SMG discussions) covered during the previous week. Unexcused absence from a scheduled examination or quiz will result in a grade of zero (0 %) being assigned for that examination or quiz.

Final Comprehensive Exam

There will be a final comprehensive exam (covering both fall and spring semesters), which will be a customized NBME subject exam.

Small Group Sessions

There will be 8 small group discussion sessions specific to the Pathology course. There will be also some SMG integrated with other courses, but these will not contribute to the grade in Pathology 202.

Attendance is mandatory for all students and performance must be satisfactory or better to pass the course. Satisfactory is defined as being present and punctual to each assigned activity, staying engaged during the session, listening respectfully to others and contributing regularly, exhibiting understanding of the topic by previous review of the assigned materials (lecture power points and reading of text book chapters or any other assigned readings) and demonstrating analytical thinking ability. When the student is acting as a leader, he or she will be evaluated by the assigned faculty for compliance with the goals and objectives of the particular SMG discussion he/she is leading. In addition, assigned student leaders must attend the preview session to prepare them for their role.

Clinical-Pathologic Correlation (CPC)

Each student will take part in one Clinical-Pathologic Correlation (CPC) exercise and will receive the same score as the whole group based on the following scale: 1. Unsatisfactory 2. Satisfactory and 3. Outstanding. A score of Satisfactory or better is required to pass the course. Attendance to the CPC sessions is mandatory for the whole class and not just for the presenters. Since the CPC began during the Pathology 201 course you are already familiar with this activity. Those who presented their CPC during the Fall semester will receive their CPC score in the Spring semester.

Grading Scale

FSU COM has adopted a **pass/fail grading system** used in the curriculum for the first and second years. See [page 31 of Student Handbook](#) for details.

To receive a grade of Pass, a student must fulfill all of the following requirements:

- 1) An average of $\geq 70\%$ correct from all combined block exams and quizzes. The final average is cumulative and results from dividing the total number of correct answers by the total number of questions (approximately 240 block exams questions + 72 quiz questions).
- 2) A Passing score, as determined by the course director, on the Pathology content of the final comprehensive (NBME) exam.
- 3) Satisfactory attendance and participation in all Small Group discussions, including the faculty wrap ups, as determined by the faculty facilitator and course director.
- 4) Satisfactory attendance and participation in the CPC sessions, as determined by the faculty participants and course director

Students with more than 2 unexcused absences will receive a grade of "Fail."