

**BMS 6602**  
**SYSTEMIC PATHOLOGY & LABORATORY MEDICINE**  
**2006-7**

**Syllabus**

There will be handouts for all the lectures. These are designed to supplement and organize the material in the textbook, but not be a complete substitute for it.

**Course Objectives**

Specific objectives accompany each lecture handout. The systemic pathology course in the Spring semester at FSUCOM covers the pathophysiology of disease in medicine by organ systems. The knowledge gained from study of these systems will correlate with other courses for each organ system in the Spring semester and be applied to clerkships in the 3<sup>rd</sup> and 4<sup>th</sup> years. This pathology course will incorporate gross pathologic, microscopic, laboratory testing, and radiologic material to assist you in understanding the disease processes and prepare you for licensing examinations. The knowledge gained from a study of pathology will integrate with other courses to provide you with the means for assessment and diagnosis of patients under your care.

**Course Schedule**

Check locations for lectures in the course master schedule included with the Outlook calendar for the class. Materials for these events can be found at the course's Blackboard Web Site (<http://campus.fsu.edu>).

See this Outlook calendar schedule for dates and times. The lectures are designed to cover the course content in an organized fashion, illustrating the concepts and allowing time for you to ask questions. You will be assigned to one of the laboratory or small group rooms. Assignments for small group sessions will be made on the basis of the number of groups and available faculty facilitators.

**Required Textbook**

PATHOLOGIC BASIS OF DISEASE, 7th edition, by Robbins (same as for the Pathology 6601 course).

**Computer Resources**

Multimedia exercises covering the small groups/laboratories/PBLs/tutorials, as well as images supporting the classroom sessions, and the examination question banks, are available via the World Wide Web at:

<http://www.med.fsu.edu/webpath/webpath.htm>

## Course Faculty and Office Hours

The senior faculty for the course are Dr. Edward C. Klatt (course director), who can be contacted at voice mail 644-9397 and Dr. Morton H. Levitt who can be contacted at 644-0498

Office hours for Dr. Klatt: Monday through Friday by appointment, and generally from 7 am to 8 am and from 3:30 pm to 5:30 pm, room 1310-K

Dr. Klatt's e-mail address is:

[Edward.Klatt@med.fsu.edu](mailto:Edward.Klatt@med.fsu.edu)

Dr. Levitt's e-mail address is:

[Morton.Levitt@med.fsu.edu](mailto:Morton.Levitt@med.fsu.edu)

Small group, laboratory and PBL facilitators are drawn from the FSUCOM faculty. Additional assigned faculty for this semester include:

Dr. John Blackmon  
Dr. Gail Galasko  
Dr. Yoichi Kato  
Dr. Edward Klatt  
Dr. Choogon Lee  
Dr. Morton Levitt  
Dr. Charles Ouimet  
Dr. Mike Overton  
Dr. Graham Patrick  
Dr. Xian-Min Yu

## Examinations/Grading

The material for examinations and quizzes will come from lectures, small group sessions (including laboratory and PBL), tutorial sessions, radiology sessions, clinical-pathologic correlation sessions, the webpath web site, and the textbook.

The format for examinations may include the following:

- Written examination items: multiple choice questions (single best answer) worth one point.
- Practical examination items: multiple choice (single best answer) questions based upon illustrations of gross, microscopic, or radiographic lesions or charts and graphs, from material covered in laboratories, small groups, and lectures, worth one point.
- Essay questions, worth 10 points.

There will be five integrated block examinations and a final comprehensive examination in the Spring semester. Each block examination will cover material in all the courses, including pathology, for the weeks prior to each examination. The final examination will cover material for the whole year (both semesters) in the manner of a USMLE step 1 examination. The pathology components for the integrated examinations will be as follows:

Section	Points
Cardiovascular/Pulmonary section	56
Renal/Gastrointestinal section	64
Reproductive/Endocrine section	69
Hematology/Musculoskeletal section	76
Neuroscience/Dermatology section	53
Final Comprehensive exam	110

There will be 22 small group/laboratory/PBL sessions for Pathology 6602 in the Spring semester with a 6 point quiz given at the beginning of each of these sessions, with a total of 132 questions.

Each student will take part in one Clinical-Pathologic Correlation exercise, worth a maximum 20 points.

There will be two NBME Comprehensive Basic Science Examinations given that will count toward the grade in pathology and will be worth the equivalent of a maximum 30 points each, assigned in a proportion to the overall score in relation to the class performance on that exam (30 points for the highest score, and lower scores ranked by percentage from that).

Thus, the final grade in Pathology 6602 will be determined as follows:

428 multiple choice/short answer/essay questions
132 Small group/laboratory quizzes
20 Clinical-Pathologic Correlation Exercise
60 NBME Comprehensive Basic Science Examinations
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640 total points

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

A	= > 90 % correct
B+	= 87 – 89.9% correct
B	= 80 – 86.9 % correct
C+	= 77 – 79.9% correct
C	= 70 – 76.9 % correct
D	= 65 – 69.9 % correct
F	= < 64.9 % correct

**The following Attendance, Remediation, Honor Code, and ADA policies have been adopted by the Florida State University College of Medicine for all courses:**

## **FSU COM ATTENDANCE POLICY**

### **COM Philosophy**

#### **We believe that:**

Professionalism is a major component of our medical curriculum. We believe students should conduct themselves appropriately in the various educational activities of the curriculum. This conduct includes coming to educational activities on-time, using the laptop computers only for course work during the educational activity, and not disrupting the class if late. The faculty should also demonstrate professionalism, by starting and ending all scheduled educational activities on time and providing a course schedule with clearly explained course policies in the course syllabus. Any changes in the schedule should be given to the students in a timely manner.

Students will be accountable and personally responsible for attending all educational activities (small groups, labs, clinical experiences, examinations, lectures, computer sessions, etc.).

Unexcused absences reflect negatively on the goals and objectives of the medical curriculum and demonstrate unprofessional behavior by the respective student.

We owe it to our state legislature and the citizens of the State of Florida to provide a quality educational program that meets the needs of our students in preparing them for the M.D. degree.

### **Attendance Policy**

Students are expected to attend all scheduled activities. Students are expected to be on time. Being on time is defined as being *ready to start* at the assigned time. If a student has an emergency that prevents her/him from attending a scheduled activity, s/he is to call and notify the Office of Student Affairs (Year 1/2) or the Regional Campus Dean (Year 3/4) and request that they inform the supervisors/professors/clerkship faculty/education director for that activity. If at all possible, the student should also call and at a minimum, leave a message with one of the course/clerkship directors. *It is important that students realize that their absence or tardiness negatively impacts a number of other people.* Attendance, including tardiness, is part of the student's evaluation for professionalism. Negative evaluations may result in decreased grades and in severe cases, referral to the Student Evaluation and Promotion Committee.

### **Procedure for Notification of Absence**

#### **Year 1/2**

If the student knows in advance of an upcoming legitimate absence, the "Advance Notification of Absence from Educational Activity(ies)" form should be completed with signatures from the student, the Assistant Dean for Student Affairs, the course faculty member and the Course Director. The form will be filed in the Office of Student Affairs. The implications for the

absence (e.g., remediation, course grade adjustment, make-up exam, etc.) will be given to the student by the course director and final decisions regarding these actions shall rest with the course director.

If the absence occurs due to an unforeseen emergency, the student should contact the course director and the Assistant Dean for Student Affairs immediately to report the absence including the reason for the absence. The implications for the absence (e.g., remediation, course grade adjustment, make-up exam, etc.) will be given to the student by the course director and final decisions regarding these actions shall rest with the course director.

### **Year 3/4**

If the student knows in advance of an upcoming legitimate absence, the “Advance Notification of Absence from Educational Activity(ies) form should be completed, signed by the student and given to the regional campus dean. The Regional Campus Dean will forward the request to the Education Director for the discipline, who after consultation with the Regional Campus Dean and the Clerkship Director, will make the final decision regarding the student’s request and give the student the implications for the absence (e.g., remediation, course grade adjustment, make-up exam, etc.). Final decisions regarding implications for the student’s grade shall rest with the education director. The clerkship director will notify the faculty member of the decision. The form will be filed in the Office of Student Affairs.

If the absence occurs due to an unforeseen emergency, the student should contact the clerkship director and the Regional Campus Dean immediately to report the absence including the reason for the absence. The Regional Campus Dean will notify the Education Director for the discipline, who after consultation with the clerkship director and regional campus dean will make the final decision regarding implications of the student’s absence. The implications for the absence (e.g., remediation, course grade adjustment, make-up exam, etc.) will be given to the student by the education director. Final decisions regarding implications for the student’s grade shall rest with the education director. The clerkship director will notify the faculty member of the decision. The form will be filed in the Office of Student Affairs.

### **Remediation Policy for Absences from Examinations, Quizzes, Small Group Sessions, Laboratory Sessions, Clinical Learning Center Sessions, Preceptor visits, and Clerkship Call**

The remediation policies for absences from examinations, quizzes, small group sessions, laboratory sessions and clerkship call are:

1. **POLICY ON MISSED EXAMINATIONS:** Students are required to take major in-term and final examinations. According to the curriculum committee a student can only be excused from an examination by a course/education director decision based on the personal situation of the student. The course/education director will determine the time of the exam make-up session. **All examinations must be made up within 1 week of returning to class.** Also, according to the curriculum committee decision and the existence of the FSU-COM honor code, the student will be given the same examination given to the other students.

2. **POLICY ON MISSED QUIZZES:** Students are required to take scheduled and unscheduled quizzes in the courses. A student can only be excused from a quiz by a course director decision based on the personal situation of the student. The student must make arrangements with the course/education director to make up a missed quiz. **All quizzes must be made up within 1 week of returning to class.** Also, according to the curriculum committee decision and the existence of the FSU-COM honor code, the student will be given the same quiz given to the other students.
  
3. **POLICY ON MISSED SMALL GROUP SESSIONS, LABORATORY SESSIONS, CLINICAL LEARNING CENTER SESSIONS, PRECEPTOR VISITS, AND CLERKSHIP CALL:** The student should contact the course director, small group leader or education director for instructions on remediation of the missed session and material covered. Missed small group sessions must be made up within 1 week of returning to class. They will be made up by handing in the answers to the questions in the small group session and a 1 page discussion of the material covered in the session. In BMS 6601, some small group sessions include a quiz as well as case discussions; in such a case, arrangements must be made, according to these policies, for remediating both missed activities.

### **Remediation Policy for Students Who Fail a Course**

Remediation of courses/clerkships will be planned and implemented by a combined decision of the Evaluation and Promotion Committee in collaboration with the course/education director.

### **Un-excused Absences**

“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 Spring 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.**

### **Academic Honor Code:**

Students are expected to uphold the Academic Honor Code published in the Florida State University Bulletin and the Student Handbook: *The Academic Honor System of the Florida State University is based on the premise that each student has the responsibility (1) to uphold the highest standards of academic integrity in the student’s own work, (2) to refuse to tolerate violations of academic integrity in the University community, and (3) to foster a high sense of integrity and social responsibility on the part of the University community.*

## **Students with Disabilities (ADA Statement):**

Students with disabilities needing academic accommodations should:

1. Register with and provide documentation to the student disability Resource Center (SDRC);
2. Bring a letter to the instructor from the SDRC indicating you need academic accommodations. This should be done within the first week of class. Specific arrangements should be settled with the instructor 5 working days prior to each exam for which accommodations are being requested.

## **Copyright and Electronic Use:**

This course web site and Blackboard site may contain copyrighted materials that are used in compliance with U.S. Copyright Law. Under that law, materials may not be saved to your computer, revised, copied, or distributed without permission. They are to be used in support of instructional activity as part of this course only and shall be limited to the duration of the course, unless otherwise specified by the instructor or owner of the material. You may only download or print materials at the direction of your instructor, who knows which materials are copyrighted and which are not.

In addition, the Medical Library licenses a number of e-books for which specific chapter/sections in the book(s) may be pertinent to this course. It is important to remember that copying or printing the entire text is not compliant with copyright laws. Please copy and/or print only those portions you need for your personal use. Do not revise, copy, or distribute these materials to anyone not currently an FSU faculty, student or staff member.

## **Evaluations**

Student evaluations of the course are an important way of improving medical education. Not only are your comments and suggestions valued, but the evaluation process represents one way for you to become familiar with the peer review process. Peer review is an important quality management function in all branches of medicine. In order for peer review to work properly, it must be taken seriously both by the evaluators as well as those being evaluated. Therefore, we ask that you give careful consideration to evaluations. When making comments, consider what you would say if you were face to face with the person to whom the comments are directed. How would you react if the comments were directed at you? Give thought to how learning resources were used in regard to the way you learn best. What worked for you and what did not? How is your time used optimally? Are you making adequate progress? Are you being challenged to improve? Be specific. Ultimately, your use of the evaluation process can help you learn how to improve your own medical practice.

## **Course Objectives**

### **Knowledge**

1. Demonstrate the application of the scientific bases of health, disease, and medicine to common and high impact medical conditions in contemporary society.
2. Describe the development, structure and function of the healthy human body and each of its major organ systems at the macroscopic, microscopic, and molecular levels.
3. Recognize and discuss the implications of altered structure and function (pathology and pathophysiology) of the body and its major organ systems that are seen in various diseases and conditions.
4. 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.
5. Describe the molecular basis of diseases and maladies and the way in which they affect the body (pathogenesis).
6. 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.
7. Describe strategies to support life long 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**

8. Demonstrate the appropriate use of laboratory tests and radiographic studies in making diagnostic and treatment decisions.
9. 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.
10. 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.
11. Demonstrate the ability to organize, record, research, present, critique, and manage clinical information.

### **Attitudes/Behaviors**

12. 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.
13. Display the personal attributes of compassion, honesty, and integrity in relationships with patients, families, communities and the medical profession.
14. Exhibit well-developed interpersonal skills in providing information and comfort to patients and their families.



FSU COM Competency	Pathology Objective
Professional attitudes and behaviors	12
Ethical judgment	13
Communication with patients, families and colleagues	14
Application of basic biomedical and behavioral sciences to patient care	1,2,3,4,5,6
Essential clinical skills	8,9
Problem solving and critical thinking	6,11
Life-long learning skills and management of information	7,10
Awareness of social, cultural, and community context of health, illness, and care	1,4

## Topical Outline for the Course

### Cardiovascular System

Session	Format	Faculty	Topic(s)
1	Lecture	Levitt	Atherosclerosis & hypertension
2	Lecture	Levitt	Ischemic heart disease & myocardial infarction
3.	Lecture	Levitt	Cardiomyopathy & congestive heart failure
4	Lecture	Levitt	Valvular heart disease
5	Lecture	Levitt	Valvular heart disease
6	Lecture	Levitt	Pericarditis, Tumors
7	Lecture	Levitt	Cardiac diseases
8	Tutorial	Levitt	Cardiovascular diseases
9	Lecture	Levitt	Congenital heart disease
10	Tutorial	Levitt	Congenital heart disease
11	Laboratory	9 faculty	Cardiovascular diseases
12	Large group	Payer	Radiologic correlations
13	Large group	Klatt, Levitt	Student CPC #1, #2

### Pulmonary System

Session	Format	Faculty	Topic(s)
1	Lecture	Klatt	Infections
2	Lecture	Klatt	Infections
3	Lecture	Klatt	Obstructive lung diseases
4	Lecture	Klatt	Restrictive lung diseases
5	Lecture	Klatt	Congenital diseases
6	Lecture	Klatt	Neoplasms
7	Large group	Payer	Radiologic correlations
8	Laboratory	9 faculty	Pulmonary pathology 1
9	Lecture	Klatt	Cytopathology
10	Large group	Payer	Radiologic correlations
11	Laboratory	9 faculty	Pulmonary pathology 2

### Renal System

Session	Format	Faculty	Topic(s)
1	Lecture	Levitt	Renal 1 - Congenital & neoplastic diseases
2	Lecture	Levitt	Renal 2 - Congenital & neoplastic diseases
3	Lecture	Levitt	Renal 3 - Interstitial diseases
4	Lecture	Levitt	Renal 4 - Vascular diseases
5	Laboratory	9 faculty	Renal diseases laboratory
6	Lecture	Levitt	Renal 5 - Neoplastic diseases
7	Tutorial	Klatt	Urinalysis
8	Lecture	Levitt	Renal 6 - Glomerulonephritis
9	Lecture	Levitt	Renal 7 - Glomerulonephritis
10	Tutorial	Klatt	Renal and Urinary tract: Laboratory testing
11	Large group	Payer	Radiologic correlations
12	Large group	Klatt, Levitt	Student CPC #3, #4
13	Small groups	9 faculty	Renal biopsies small groups

## Gastrointestinal System

Session	Format	Faculty	Topic(s)
1	Lecture	Levitt	Upper GI tract
2	Lecture	Levitt	Upper GI tract
3	Lecture	Levitt	Upper GI tract
4	Large group	Payer	Radiologic correlations
5	Large group	Klatt, Levitt	Student CPC #5, #6
6	Lecture	Levitt	Colon
7	Lecture	Levitt	Colon
8	Lecture	Levitt	Pancreas
9	Lecture	Levitt	Biliary tract
10	Laboratory	9 faculty	Gastrointestinal pathology 1
11	Large group	Payer	Radiologic correlations
12	Large group	Klatt, Levitt	Student CPC #7, #8
13	Lecture	Klatt	Liver
14	Lecture	Klatt	Liver
15	Large group	Payer	Radiologic correlations
16	Large group	Klatt, Levitt	Student CPC #9, #10
17	Laboratory	9 faculty	Gastrointestinal pathology 2
18	Tutorial	Klatt	GI Laboratory testing

## Reproductive System

Session	Format	Faculty	Topic(s)
1	Lecture	Levitt	Breast
2	Lecture	Levitt	Vagina & cervix
3	PBL	9 faculty	Reproductive PBL session 1
4	Lecture	Levitt	Endometrium
5	Lecture	Levitt	Myometrium
6	PBL	9 faculty	Reproductive PBL session 2
7	PBL	Klatt	Reproductive PBL session wrap-up
8	Lecture	Klatt	Ovary
9	Lecture	Klatt	Gestational trophoblastic diseases
10	Laboratory	9 faculty	Reproductive pathology 1
11	Lecture	Klatt	Male genital tract
12	Lecture	Klatt	Male genital tract
13	Laboratory	9 faculty	Reproductive pathology 2
14	Large group	Payer	Radiologic correlations
15	Large group	Klatt, Levitt	Student CPC #11, #12

## Endocrine System

Session	Format	Faculty	Topic(s)
1	Lecture	Klatt	Diabetes mellitus
2	Lecture	Klatt	Thyroid
3	Lecture	Klatt	Parathyroid
4	Lecture	Klatt	Adrenal
5	Lecture	Klatt	Pituitary
6	Laboratory	9 faculty	Endocrine pathology

7	Lecture	Levitt	Head & neck pathology
8	Lecture	Levitt	Head & neck pathology
9	Large group	Payer	Radiologic correlations
10	Large group	Klatt, Levitt	Student CPC #13, #14
11	Laboratory	9 faculty	Head & neck pathology

### Hematology Organ System

Session	Format	Faculty	Topic(s)
1	Lecture	Klatt	Basic hematology
2	Lecture	Klatt	RBC disorders
3	PBL	9 faculty	Hematology PBL session 1
4	Lecture	Klatt	Hemoglobinopathies 1
5	Laboratory	9 faculty	Hemoglobinopathies 2
6	PBL	9 faculty	Hematology PBL session 2
7	PBL	Klatt	Hematology PBL session wrap-up
8	Lecture	Levitt	Leukocyte disorders 1
9	Lecture	Levitt	Leukocyte disorders 2
10	Lecture	Levitt	Leukocyte disorders 3
11	Lecture	Levitt	Leukocyte disorders 4
12	Laboratory	9 faculty	WBC disorders
13	Lecture	Levitt	Coagulation disorders
14	Lecture	Levitt	Leukocyte disorders 5
15	Lecture	Klatt	Transfusion medicine
16	Large group	Klatt, Levitt	Student CPC #15, #16
17	Laboratory	9 faculty	Hematopathology

### Musculoskeletal System

Session	Format	Faculty	Topic(s)
1	Lecture	Levitt	Bone, joint, & soft tissue diseases
2	Lecture	Levitt	Bone, joint, & soft tissue diseases
3	Laboratory	9 faculty	Bone diseases laboratory
4	PBL	9 faculty	Musculoskeletal PBL session 1
5	Lecture	Klatt	Muscle diseases
6	Large group	Payer	Radiologic correlations
7	Large group	Klatt, Levitt	Student CPC #17, #18
8	Large group	Payer, Klatt	Radiologic correlations
9	PBL	9 faculty	Musculoskeletal PBL session 2
10	PBL	Levitt	Musculoskeletal PBL session wrap-up
11	Small groups	9 faculty	Muscle diseases small groups

### Central Nervous System

Session	Format	Faculty	Topic(s)
1	Lecture	Klatt	Congenital diseases
2	Lecture	Klatt	Vascular diseases
3	Lecture	Klatt	Infections

4	Lecture	Klatt	Infections
5	Lecture	Levitt	Degenerative & demyelinating diseases
6	Lecture	Levitt	Degenerative & demyelinating diseases
7	Lecture	Levitt	Degenerative & demyelinating diseases
8	Lecture	Levitt	Peripheral nerve diseases
9	Lecture	Levitt	CNS tumors
10	Laboratory	9 faculty	CNS diseases laboratory
11	Large group	Payer	Radiologic correlations
12	Large group	Klatt, Levitt	Student CPC #19
13	Lecture	Klatt	Ophthalmic pathology
14	Lecture	Klatt	Ophthalmic pathology
15	Laboratory	9 faculty	Ophthalmic diseases laboratory
16	Large group	Payer	Radiologic correlations
17	Lecture	Levitt	Dermatopathology
18	Lecture	Levitt	Dermatopathology
19	Lecture	Levitt	Dermatopathology/ SUSSAI forms
20	Small groups	9 faculty	Dermatopathology small groups