



The Florida State University
College of Medicine

**General Medical
Microbiology and
Infectious Disease**

BMS 6301

Fall 2010

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Instructors

Course Director

Mary T. Johnson, Ph.D.

Office: OME, Room 2200H

Office Hours: MWF 12:00-1:30pm, other times by appointment

Phone: 644-9649

Email: mary.johnson@med.fsu.edu

Small Group Facilitators

Ewa (Ava) A Bienkiewicz, Ph.D. 3110-D(8/27 & 10/5 only)

Yoichi Kato, M.D., Ph.D. 3130-F(9/17, 9/24, 9/30)

Gail Galasko, Ph.D. 3350-D (1st 2 sessions)

Sanjay S Kumar M.S., Ph.D. 3130-G (remaining 3 sessions)

Jamila I Horabin Ph.D. 3130-E

John Blackmon, M.D.

Mohamed Kabbaj Ph.D. 3300-G

Choogon Lee Ph.D. 3170-E

Akash Gunjan Ph.D. 2300A (1st 2 sessions)

Yanchang Wang Ph.D. 3350H (remaining 3 sessions)

Johanna Paik, Ph.D. 2300-B (1st 2 sessions)

Xian-Min Yu B.M., D.Sc.H 2300-C (remaining 3 sessions)

Branko Stefanovic Ph.D. 3170-G

Tim Megraw, Ph.D. 2350-B

Steve Marks, Ph.D.

Yi Zhou Ph.D. 3190-G

Course Overview

Course Goals

This course provides learning opportunities in the basic principles of medical microbiology and infectious disease. It covers mechanisms of infectious disease transmission, principles of aseptic practice, and the role of the human body's normal microflora. The class is divided into four thematic areas: bacteriology, virology, mycology and parasitology. Relevant clinical examples are provided. The course provides the conceptual basis for understanding pathogenic microorganisms and the mechanisms by which they cause disease in the human body, as well as presenting concepts concerning host-parasite relationships and their association with human immunological phenomena. It also provides opportunities to develop informatics and diagnostic skills, including the use and interpretation of laboratory tests in the diagnosis of infectious diseases. Bacterial culture and antimicrobial susceptibility testing; microscopy for bacterial, fungal and parasitic agents; and other forms of laboratory testing for the identification of infectious organisms and evaluation of host immune parameters are important diagnostics aspects that are incorporated throughout the learning activities.

Learning Objectives

NOTE: Course-specific learning objectives that are matched to the FSU COM competency domains will be provided for each lecture, small group session and TBL session.

Knowledge

- K1. Describe microbial taxonomy and nomenclature as well as their relationship to structure, physiology, and function of organisms.
- K2. Categorize the microbial organisms with regard to virulence factors and disease characteristics, and correlate these aspects with specific patient populations at-risk for infection.
- K3. Summarize the major pathogen types and the diseases that they produce in humans.
- K4. Diagram at least six patient specimen collection and testing methods
- K5. Outline the general categories of anti-microbial therapeutics and the typical infections they are effective for treating.
- K6. Demonstrate knowledge of public health surveillance and measures to deal with infections in a population.
- K7. Organize your knowledge of the effect of age on clinical presentations of infections across the life cycle, including those seen in perinatal, pediatric, and geriatric patients.

Skills

- S1. Interpret laboratory findings for each diagnostic method within the context of the patient's clinical presentation and history of present illness.
- S2. Produce a problem solving strategy and demonstrate diagnostic reasoning ability with respect to specific infectious diseases.
- S3. Develop an ability to use evidence-based medicine to determine methods for diagnosis and treatment of infections.
- S4. Relate specific signs and symptoms appearing as clinical manifestations in the patient history and physical examination to the presence of infection.
- S5. Relate at least three radiologic findings to specific microbial infections.
- S6. Demonstrate the ability to organize, record, research, present, critique, and manage information.

Attitudes/Behaviors

- A1. Demonstrate professional attitudes and behaviors towards others.
- A2. Articulate the unique patient populations most at-risk for infections and how this information applies to future practice settings.

Course Format

Combination of lectures, online supplemental materials, laboratories, and 2-hour case-based, small-group discussion sessions (see topical syllabus).

Competencies

FSUCOM – Competencies -Course Title BMS 6301		
Competency Domains	Competencies Covered in the Course	Methods of Assessment
Patient Care		
Medical Knowledge	X	Written exams and quizzes
Practice-based Learning		
Communication Skills	X	Small group sessions and TBL sessions
Professionalism	X	Small group sessions and TBL sessions
System-based Practice		

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 Text

Medical Microbiology, 6th Ed. (2008) Murray, Rosenthal, and Pfaller, Elsevier-Mosby, ISBN: 0-323-5470-6.

Electronic Resources

<http://www.cdc.gov/mmwr/>

Access Medicine/Harrison's Online

Class schedules, weekly assignments, and information on coverage of exams are posted on the Blackboard website for this course. Copies of lecture topic summaries, and Power Point presentations are also posted at this site.

Grading

Assignments and weights

The material for examinations and quizzes will come from lectures, small group sessions, material on the Blackboard site for the course, **and the textbook**. The format for written examinations will be multiple choice questions (single best answer).

There will be four integrated block examinations in the Fall semester. These examinations will cover material in all the courses for the four weeks prior to each examination. The microbiology component of each examination will consist of ~34 multiple choice questions. There will also be eight small group session quizzes and one parasitology presentation (using informatics skills) in this course. The final grade will be based upon the total score calculated from the total number of points as follows:

Questions on Exam #1 (integrated block examination)	=	17 %	
Questions on Exam #2 (integrated block examination)	=	20 %	
Questions on Exam #3 (integrated block examination)	=	20 %	
Questions on Exam #4 (integrated block examination)	=	10 %	
Questions on the eight integrated quizzes	=	18 %	
Small group participation			
Facilitator & Peer Evaluation	=	5%	} = 15 %
Reflection on process	=	5%	
Portfolio assignment	=	5%	
TOTAL			= 100%

Grading Scale

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

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