The Florida State University
College of Medicine

BMS 6302

Systemic Medical Microbiology and Infectious Disease

Spring 2011

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Instructors

Course Director

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Course Overview

Course Goals

Building upon the principles learned in General Medical Microbiology and Infectious Disease (BMS 6301), the medical student studies in detail infectious diseases in organ systems. The biological characteristics and pathologic mechanisms of infectious bacteria, viruses, fungi and parasites are covered. Functional and clinical implications are presented in the form of relevant clinical case examples that include the use of laboratory testing for diagnosis and treatment.

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.

Course Objectives

Medical Knowledge Competency

- Apply concepts from the microbiology knowledge base (principles of microbial taxonomy, structure, physiological function, and pathogenesis) to better understand patient cases.
- Employ the vocabulary for describing the taxonomy of microbial organisms and the diseases they produce in discussions of patient information.
- Analyze the various mechanisms by which different categories of microorganisms cause dis-ease and recognize the related signs and symptoms in the human body.

Patient Care

- Differentiate among laboratory testing methods to diagnose infections, including appropriate specimen collection, ordering of tests
- Interpret test results in the context of the patient's disease presentation and findings.
- Propose a differential diagnosis set for the infectious diseases common to each organ system.
- Choose among the general categories of therapeutic modalities available to treat infections.
- Identify the effect of age on the types of infections seen in the life-cycle, including those seen in perinatal, pediatric, and geriatric patients.
- Demonstrate problem solving ability and diagnostic reasoning with infectious diseases.
- Analyze the clinical manifestations in the history and physical examination that point to infection.
- Correlate microbial infection with radiologic imaging findings.
- Assess public health surveillance and measures to deal with infections in a population.

Professionalism

- Practice professional attitudes and behaviors in interactions with others.

Integration with COM Goals and Objectives

Medical Knowledge Competency

- Demonstrate 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 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 that are seen in 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 de-note disease.
- Describe the molecular basis of diseases and maladies 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.
- Employ 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).

Patient Care

- Demonstrate the appropriate use of laboratory tests and radiographic studies in making diagnostic and treatment decisions.
- Evaluate the patient's medical problems and to formulate accurate hypotheses to serve as the basis for making diagnostic and treatment decisions.
- Acquire new information and collect 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.
- Organize, record, research, present, critique, and manage clinical information.
- Practice effective and compassionate communication, both verbally and in writing, with patients, their families, colleagues and others with whom physicians must exchange information in carrying out their responsibilities.
- Demonstrate the ability to work effectively as part of a health care team, with appreciation for the multiple contributions of

other health care professionals and agencies to the health of the individual and the health of the community.

Professionalism

- Apply the principles of professionalism and high ethical standards in all aspects of medical practice, specifically competence, honesty, integrity, compassion, respect for others, professional responsibility and social responsibility.
- Demonstrate awareness of the health care needs of aging patients and a willingness to care for the elderly.

Course Format

Combination of lectures sessions, Team-Based Learning and case-based, small-group discussion sessions

Competencies

FSUCOM – Competencies –Microbiology 202 BMS 6302		
Competency Domains	Competencies Covered in the Course	Methods of Assessment
Patient Care	X	Multiple Choice Examination; TBL Individual & Group Readiness Assessment Test
Medical Knowledge	X	Multiple Choice Examination; TBL Individual & Group Readiness Assessment Test
Practice-based Learning	X	Multiple Choice Examination; TBL Individual & Group Readiness Assessment Test
Communication Skills	X	Peer, Self & Facilitator Evaluation of Small Group Exercises
Professionalism	X	Peer, Self & Facilitator Evaluation of Small Group Exercises
System-based Practice		
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 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) 645-8256Fax: (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

Principles and Practice of Infectious Disease

Class schedules, weekly assignments, and information on coverage of exams are posted on the Blackboard website for this course. Copies of all handouts, summaries, lecture topic summaries, answers to the cases discussed in class 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 ~20 multiple choice questions. There will also be small group session quizzes; team-based learning sessions (TBL); a case assessment summary; and a problem-based learning written assessment in this course. The final grade will be based upon the total score calculated from the total number of points as follows:

Four integrated block examinations	40%(10% each)
Integrated quiz scores (Quiz #10,11,13,15,17) (5 total; drop lowest 1; only 4 count) Note: only excused absences qualify to be dropped	12% (3% each)
TBL sessions (two total) 90% of the credit is from the GRAT score 10% is from the IRAT score (individual)	28% (7% each)
Comprehensive final examination	20%
TOTAL	100%

Rubric

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

Grade	Percentage
A	> 90.0 % 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