SYLLABUS BIOL 2900 Spring, 2014

Course: Microbiology in Health and Disease

Instructor: Prafull C. Shah **Office: BC 2092**

Office Hours: After classes, or

(2) Vocabulary, spelling and pronunciation of medical terms may be important parts of quizzes and examinations.
(3) Lab. portion of testing will be merged with lectures.
(4) Periodic quizzes will be worth a total of 200 points.
(5) Mid-term examination will be worth 100 points.
(6) Final examination will be worth 100 points.
(7) Between quizzes, mid-term, and final examination, each student can earn a maximum of 400 points.

GRADING SCALE:

Week 4

Host Defense Mechanisms – Role of normal flora and physical barriers to infections

Natural and Acquired Immunity

Week 9	
Continuation of Antimicrobial Agents Continuation of Aerobic Gram Positive Cocci Differentiation of Gram Positive Cocci in a laboratory	Treatment of microbial infections
Week 10	
Clinically significant aerobic Enteric Gram Negative bacteria – Escherichia, Salmonella, Shigella Differentiation of Gram Negative Bacilli in a laboratory	Introduction to Enterobacteriaceae, and their impact on humans
Week 11	
Clinically significant aerobic Non-Enteric Gram Negative bacteria – Pseudomonas, Acinetobacter, Haemophilus Antimicrobial Susceptibility testing – Principles and procedures Antimicrobial Susceptibility Results – Their Interpretation and Applicability to patient care	How the results from a Microbiology laboratory may be applied in patient treatment Introduction to non-enteric aerobic bacteria, and their impact on humans How antimicrobial treatment parameters are determined
Week 12	
Clinically significant: Gram Negative diplococci – Neisseria, Moraxella Gram Positive Bacilli - Bacillus, Listeria Spiral bacteria – Treponema, Leptospira	Introduction to Neisseria, Bacillus, and Spirochaetes, and their impact on humans
Week 13	
Clinically significant anaerobic bacteria – Clostridium, Bacteroides	Introduction to anaerobic bacteria , and their impact on humans
Week 14	
Clinically significant miscellaneous microorganisms – Viruses, Parasites, Chlamydia, Mycobacteria, Fungi, Yeasts **Etiology of common human infections:** Urinary tract, Respiratory, Gastro-intestinal, Genito-urinary, Skin and Wound infections	Introduction to non-bacterial Microbial pathogens Agents responsible for most common infections

Week 15	
Review and interpretation of important laboratory results Epidemiology, Emerging Diseases and Public Health Role of Infection Control Personnel Review	Challenges posed by MRSA – “The Superbug”, CDAD, EHAC and other emerging, important infections and how to control them
Week 16	
Final Examination End of Semester	