

SYLLABUS BIOL 2900 SECTION "C"

Fall, 2011

Course: Microbiology in Health and Disease

CRN: 81620

Office Hours: Before or after Class or by appointment

Semester Begins on

4. Cell phones are to be turned off during classes and examinations.
5. Students are responsible for reading and following the Biology Department policy on plagiarism.
6. **Since important concepts are explained in the classroom, missing classes may seriously impact grades.**
7. Make-up examination or quiz WILL NOT BE OFFERED, except under e

Week 1	
Subject(s)	Learning Objectives
General course information Introduction to Microbial World Introduction to Microscopy Personal and patient safety in healthcare environment Safety in microbiology laboratory	History of Microbiology, role of microbes in nature, well-being of other living things, science, health and diseases. Introduction to Microbiology Laboratory Safety, hand hygiene Proper handling and use of microscope
Week 2	
The Molecules of Life Microscopy and Cell Structure Use of Microscope, Practice of focusing on human blood components Practice of using oil immersion lens	Characteristics of prokaryotic and eukaryotic cells Principles of microscopy, use of microscopes Distinction of various groups of bacteria
Week 3	
FIRST QUIZ Microbial Metabolism, Physiology and Genetics Examination of microscopic life in pond water - Protozoa, Algae, Cyanobacteria Culture of normal environmental and body flora	How microbes live and multiply Study of higher forms of microbial life What grows where?

Week 6

Control of Microbial Growth – Disinfection and Sterilization
Demonstration of Steam sterilization and Sterility Check
Gram Stain of common pathogenic bacteria

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	
FOURTH QUIZ 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 <u>Etiology of common human infections:</u> 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	