

SYLLABUS BIOL 2900 SECTION S “C” AND “D”

Spring, 2011

Course: Microbiology in Health and Disease

Office Hours: Before or after Class or by appointment

Semester Begins on January 10, 2011 and ends on May 2, 2011

21201	BIOL	2900	C	4.00	Microbiology in Health/Disease	Main Campus
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2. Students are advised to consult the VSU Student Handbook, Undergraduate Catalog, Semester Calendar, Schedule of Classes, & Registration Guide for information about VSU policies and procedures regarding registration, drop/add, and withdrawal. Students are not permitted to withdraw after midterm except in cases of hardship.
3. Students requesting classroom accommodations or modifications because of a documented disability should contact the Access Office for Students with Disabilities, 1115 Nevins Hall.
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 exceptional and unavoidable circumstance. If offered, it will be at the discretion of the Instructor, AND will not carry full earned points.
8. Changes to this syllabus may be made during the Semester.

GRADES:

- (1) There will be periodic quizzes, a mid-term examination and a final examination. Quizzes and exams typically consist of multiple choice, matching, fill-in blanks type of questions, including some open book. However, students may be challenged with questions that may require creative thinking and true understanding of concepts in order to answer them correctly.
- (2) In addition, there may be special assignments and projects which will be announced in the class.
- (3) Vocabulary, spelling and pronunciation of medical terms may be important parts of assignments, quizzes and examinations.
- (4) Lab. portion of testing will be merged with lectures.
- (5) Periodic quizzes will be worth a total of 150 points.
- (6) Mid-term examination will be worth 150 points.
- (7) Special projects or presentations will be worth 50 points.
- (8) Final examination worth 50t2rm exam

GRADING SCALE:

Grade A = 90 -100% or between 540 and 600 points

Grade B = 80 - 89% or between 480 and 539 points

Grade C = 70 – 79% or between 420 and 479 points

Grade D = 60 – 69% or between 360 and 419 points

Grade F = Less than 60% or 359 or less points

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 4	
Host Defense Mechanisms – Role of normal flora and physical barriers to infections Natural and Acquired Immunity Study of growth acquired from environmental and body flora Colony characteristics and simple stain of recovered bacteria	How physical make-up of human body defend against infections What are natural, acquired and artificial means of combating infections Are our counters, keyboards, drains, toilet seats, door handles AND our mouths, skin and noses STERILE? What do they grow?
Week 5	
SECOND QUIZ Infectious Disease Process – How Microbes survive host defenses and cause infection Importance of Gram Stain Gram Stain of bacteria recovered from previous exercise	Organism mutation, virulence, drug resistance, avoidance of phagocytosis Gram Stain as an important diagnostic tool

Week 12

THIRD QUIZ

Antimicrobial Susceptibility Results – Their Interpretation and Applicability to patient care

Clinically significant aerobic Non-Enteric Gram Negative bacteria – Pseudomonas, Acinetobacter, Haemophilus

How the results from a Microbiology laboratory may be applied in patient treatment