

Part 1: Course Information

Instructor Information

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Course Description

This is an introductory microbiology course for the health sciences. Thus, the focus will be on basic microbiological issues involving human health and wellbeing. We will deal with aspects of microbial cell biology of importance to our understanding of microbial functions in health and disease, then we will take a look at some aspects of public health and medical microbiology.

Course Duration

January 6th 2014 – April 4th 2014

Lecture Time

Mondays: 8:30AM – 10:00AM
Tuesdays: 9:30AM – 11:00AM

Location

RB2047

Restrictions

Nursing students (or with permission)

Textbook and Course Materials

Microbiology: An Introduction. 11th Edition by Tortora, Funke and Case (required text).

Course Structure

This is a lecture course, and hence your attendance and participation in class is critical to your success. Failure to attend classes will certainly jeopardize your level of understanding, which will ultimately reflect on you grade. You are therefore advised make class attendance a priority.

Part 2: Course Objectives

This course is designed for you as a nursing student to understand the important roles microorganisms play in human health and wellbeing. Although well engrained in the minds of everybody, including health care professionals that microbes are harmful, they are more beneficial than detrimental to us.

To really appreciate how microbes affect our health, you need to understand the basic biology of microorganisms, including microbial anatomy, physiology, growth, genetics, and metabolism. This core knowledge is what will lead you to recognize microbes as etiologic agents of disease, their mechanisms of pathogenicity, modes of spread, sensitivity to chemotherapy and resistance to some antimicrobial agents.

You will meet these course objectives by thoroughly studying the various modules (spending at least 3 hours per week on each module), preparing for each exam/quiz, and contributing to discussions as necessary.

Use the study objectives and questions in the power point presentations, as well as questions at the end of each chapter as a guide to test your comprehension of the contents in the chapter. Please enjoy microbiology by challenging yourself!!!

Part 3: Course Outline

LECTURE SCHEDULE

Week	Lecture topic	Chapters
1	The microbial world and you	1
2	Functional anatomy of prokaryotic and eukaryotic cells	4
3	Microbial metabolism	5
4	Midterm 1	
5	Microbial growth and control	6/7
6	Microbial genetics	8
7	Biotechnology and DNA technology	9
8	Midterm 2	
9	Principles of disease and epidemiology	14
11	Microbial mechanisms of pathogenicity	15
12	Basic Immunology	16-19

Grading Policy

Graded Course Activities

Description	Percentage Points
2 Midterm Exam (25% each)	50%
1 Final Exam	50%
Total Points	100

**BIO 2713 WA 2014: INTRODUCTION TO MICROBIOLOGY
COURSE SYLLABUS**