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, and then we will take a look at some aspects of public health and medical microbiology.

Course Duration

May 4th 2015 - June 15th 2015 (6 weeks)

Prerequisite

Nursing students (except students with special permission)

Textbook and Course Materials

Microbiology: An Introduction.12th Edition by Tortora, Funke and Case (required text).

Course Requirements

Internet connection Access to Desire 2 Learn (D2L)

Course Structure

This course will be delivered entirely online through the course management system *Desire 2 Learn* delivery platform. You will need your user name and password information to login onto the course from the *D2L home page*.

In Desire2Learn, you will access online modules, and additional resources, if necessary.

Technical Assistance

If you need technical assistance at any time during the course or to report a problem you can contact: mycourselink@lakeheadu.ca or CEDL office: cedl@lakeheadu.ca or Phone: (807) 346-7730.

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 well-being. 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. Therefore you should be able to describe all these processes at the end of the course

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 when necessary.

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

Part 3: Course Outline

Important Note: Refer to the course calendar for specific information. Activities and assignments will be explained in detail within each week's corresponding learning module as required. **Pay attention to important dates and times**. If you have any questions, please contact me.

| Module | Topic | Readings | Exam |
|--------|--|----------|--|
| 1 | The microbial world and you | Chapters | Date/time |
| 2 | Functional anatomy of prokaryotic and eukaryotic | 4 | |
| | cells | | |
| 3 | Microbial metabolism | 5 | |
| | Midterm Exam 1 – Modules 1, 2 & 3 | | May 18 th / 9:00 am -10: am est |
| 4 | Microbial growth and control | 6 & 7 | |
| 5 | Microbial genetics | 8 | |
| 6 | Biotechnology and DNA technology | 9 | |
| | Midterm Exam 2 - Modules 4, 5 & 6 | | June 1 st / 9:00 am -10: am est |
| 7 | Principles of disease and epidemiology | 14 | |
| 8 | Microbial mechanisms of pathogenicity | 15 | |
| | Final Exam – All Modules (1 – 8) | | June 15th / 9:00 am -11: am est |

Grading Policy

Graded Course Activities

| Description | Percentage Points | |
|----------------------------|-------------------|--|
| 2 Midterm Exams (30% each) | 60% | |
| 1 Final Exam | 40% | |
| Total Points | 100 | |

Note: All exams will be multiple-choice questions delivered online

Exam dates and times are strict. The only excuse will be a detailed note from a doctor, if you are sick or otherwise, submitted to Director of Nursing and me. Otherwise, failure to sit for a quiz or exam will be accorded a zero grade for that session

Viewing Grades

You will be notified when grades are ready to be viewed.

Part 4: Course Policies

Build Rapport

If you find that you have any trouble keeping up with readings or other aspects of the course, make sure you let me know as soon as possible. As you will notice, building rapport and effective relationships is key to becoming an effective professional. Make sure that you are proactive in informing me when difficulties arise during the semester so that I can help you find a solution. Welcome and have fun with microbiology!

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