

# Introduction to Microbiology

## Learning Guide, Module #1

### Overview

**Module 1** consists of two major components:

- **Part #1** – Review the Syllabus; Introduction to the Course Structure
- **Part #2** – Introduction to Microbiology

#### **Part #1**

In **Part #1**, the particulars of the syllabus, the course structure, and the modular approach to learning will be reviewed. In so doing, you will also become familiar with learning management system, Blackboard; and the Instructors Web Site. To this end, there are two videos and accompanying documents to get you started:

1. **Introduction to the Syllabus**
  - A. Video XXXX
  - B. Document [Syllabus](#)
2. **Introduction to the Course Structure**
  - A. Video XXXX
  - B. Document [Course Walkthrough](#)

It is also important that you read the documents posted in “Read Me First: Getting Started,” as well as the Syllabus and Course Information documents that are posted online. These documents are located on Blackboard.

#### ***“Read Me First: Getting Started”***

- A Welcome and Introduction to the Course
- Instructor Remarks About the Course
- Meet Your Instructor

#### ***“Syllabus and Course Information***

- About a Seven Week Accelerated Hybrid Course!
- Syllabus
- Assessment
- Testing Center

Part #1 you will do on your own. If you have any questions, please email me or address them at the beginning of the first lecture.

## **Part #2**

In **Part #2** will consider course curricular content associated with Module #1. This portion will begin with a look at historical theories regarding the cause of disease and historical figures in Microbiology development as a science. Then, bacterial nomenclature and cells type classification will be examined. Finally, microbial relationships will be described with particular emphasis on the major classifications of pathogens.

To aid in your mastery of the material, there are two outlines:

- [Reading Outline](#) – this outline will identify all major topics covered in the reading of the text. The outline will also provide room for note-taking. Reading should always be done before class. You will find that the outline is conveniently indexed directly to your text
- [Lecture Outline](#) – this outline will guide you in the F2F (Face to Face) lecture component. It too will provide room for note-taking.

You can always find these outlines on Blackboard, although the links are provided above.

## **Details**

**Part #1 - Learning Objectives** - In part #1 of this module, the student will:

1. Be familiar with essential information contained within the syllabus.
2. Demonstrate ability to access online resources and navigate the file structure.
3. Access documents within the module learning environment.
4. Locate online assistance such as the Learning Guides, Course Outlines, Lecture Outlines, and other learning venues.

**Part #2 - Learning Objectives** - In part #2 of this module, the student will:

1. Name historical figures and describe their particular contribution to microbiology and the Germ Theory of Disease.
2. Properly write the names of bacteria and describe the value of having a binomial nomenclature system.
3. Compare and contrast Eukaryotic cells and Prokaryotic Cells.
4. Describe the major divisions of microbiology.
5. Describe the major groups of pathogens and describe the characteristics that make each group unique.

6. Categorize and distinguish between the intermicrobial/species relationships presented.
7. Describe how temporal changes occur in a body upon the cessation of life and how these changes promote a changing microbiota therein.
8. Describe why disease-causing agents tend to become less pathogenic over time.

## READINGS

**Online Learning Assignments for Part #2** – If you have not done so already, upon completing the first class, the following readings listed below are formally assigned. Students are urged to begin mastery of the material well before the first class, if possible.

### **Textbook Reading Assignments**

<i>Introduction to Microbiology</i> Chapter 20, (Pages 259-276)	
Historical Perspectives	260-264
Nomenclature and Classification	264-267; 268-269
Cell Classifications	267-268
Microbiology Classifications	269
Pathogen Classifications	269-275

**Other Supportive Resources: Images, Animations, and Handouts** – there are various supportive tools available to the student under “Handouts and Supportive Links.” These links are designed to expand and elaborate on particular points of importance or complexity. A link to “Handouts and Supportive Links” can be found on Blackboard or the Instructor’s website.

### **In Class (Face to Face) discussions**

#### **Reading Assignment in preparation for Class (F2F) Time**

This is what happens after you die, but Moheb Costandi is required reading for this portion of the lecture. You can find this link in “Handouts and Supportive Links” on Blackboard.

This article will provide a detailed picture of the environmental changes that occur when a body stops living and how this directs progressive bacterial floral changes through time.

As time permits:

- There is a tendency for pathogenic organisms to become less pathogenic and drift toward commensal and even mutualistic relationships. Why this occurs may be discussed if time allows.
4. **Synthesis - After the In-Class (Face to Face) Period** – The first order of business (today) is to read through the online introductory documents associated with the course, syllabus, assessment etc., and get a clear understanding of how the course operates.

With this accomplished, immediate attention is to be turned to that mastery of the assigned readings and the topics discussed in class to prepare for the first exam. The exam is to be completed on the day designated on the syllabus.

5. **Assessment** – The modules officially begin and end on Tuesdays, and it is by Tuesday that an assessment exam is to be taken in the testing center at North Shore Community College within the normal hours of operation for the facility. Contact the Testing Center by phone or online regarding times that exams may be taken. It is strongly suggested that you take the exams early in the day to avoid potential problems. For more information regarding the nature of the assessments, see the document is called “Assessment,” which can be found under the Course Details page of Blackboard.