

# **Undergraduate Course Syllabus**

**BIO 212: Microbiology** 

Center: Online Credits: 3

#### **Course Prerequisites**

BIO 205, BIO 211

### **Course Description**

Microbiology focuses on the impact of pathogenic organizations and their role in immunology and disease. Course content will focus on the etiology of microbial infections, the interaction between microbe and host, and preventive measures. The laboratory course component will allow students to participate in online experiments that will provide clarity into the symptomatology, etiology, pathogenesis, epidemiology, prevention, and best practices in the treatments of infectious diseases.

#### **Course Outcomes**

- Examine pathogenesis and prevention of bacterial and viral infection in humans
- Evaluate preventive and protective measures, such as the aseptic technique, to reduce incidence of infection
- Analyze the basic principles of antibiotic/antiviral/antizoonotic therapy in clinical practice
- Describe common pathogenic microorganisms causing states of disease
- Examine the foundations of immune therapy in prevention of virulent disease

### **Required Materials**

Using your learning resources is critical to your success in this course. Please purchase directly through SNHU's online bookstore, <u>MBS Direct</u>, rather than any other vendor. Purchasing directly from the bookstore ensures that you will obtain the correct materials and that the Help Desk, your advisor, and the instructor can provide you with support if you have problems.

American Psychological Association. (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC. ISBN: 9781433805615

Access code for MyLab, which includes the following eBook:

Bauman, R. (2014). Microbiology with diseases by body system (4th ed). Pearson. ISBN: 9781323058848

Optional Materials (physical textbook):

Bauman, R. (2014). Microbiology with diseases by body system (4th ed). Pearson. ISBN: 9780321943682

### **Instructor Availability and Response Time**

Your class interaction with your instructor and your classmates will take place in Blackboard on a regular, ongoing basis. Your instructor will be active in Blackboard at least five days a week, and you will normally communicate with your instructor in the open Blackboard discussion forum so that your questions and the instructor's answers benefit the entire class. You should send emails directly to your instructor only when you need to discuss something of a personal or sensitive nature, and in those cases your instructor will generally provide a response within 24 hours.

### **Grade Distribution**

Assignment Category	Number of	Point Value	Total Points	
Assignment Category	Graded Items	per Item	Total Polits	
Discussions	2	20	40	
Homework	8	20	160	
Quizzes	4	100	400	
Final Project				
Milestone One	1	25	25	
Milestone Two	1	75	75	
Final Project	1	300	300	
		Total Course Points:	1,000	

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

### **University Grading System: Undergraduate**

		Total Points.	1,000	
<u>Grade</u>	Numerical Equivalent	<u>Points</u>	Points Equivalent	
			Lower	Upper
Α	93-100	4	930	1000
A-	90-92	3.67	900	929
B+	87-89	3.33	870	899
В	83-86	3	830	869
B-	80-82	2.67	800	829
C+	77-79	2.33	770	799
С	73-76	2	730	769
C-	70-72	1.67	700	729
D+	67-69	1.33	670	699
D	60-66	1	600	669
F	0-59	0	0	599
I	Incomplete			
IF	Incomplete/Failure*			
IP	In Progress (past end			
w	of term) Withdrawn			

<sup>\*</sup>Incomplete and Incomplete/Failure: Any student requesting an "I" grade must complete a Student Petition and Contract for a Grade of Incomplete and submit it to the proper offices prior to the final day of the term/semester. The petition will specify a deadline by which the coursework must be completed. The incomplete automatically becomes an "IF" if work has not been completed and a grade has not been submitted by the specific deadline.

### **Grading Guides**

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Course Information area in the Assignment Guidelines and Rubrics folder.

### **Weekly Assignment Schedule**

The Learning Modules area in Blackboard contains one module folder for each week of the course. All reading and assignment information can be found in the folders. All assignments are due by 11:59 p.m. Eastern Time on the last day of the module week.

In addition to the textbook readings that are listed, there may be additional required resources within each module in Blackboard.

Module	Topics and Assignments
1	Introduction to Prokaryotes and Chemistry
	Microbiology With Diseases by Body System, Chapters 1, 2, and 3
	1-1 Discussion: Preventing, Diagnosing, and Treating
	1-2 Homework: Module One
	1-3 Final Project Review
2	General Prokaryotes, Nutrition, and Growth
	Microbiology With Diseases by Body System, Chapters 5 and 6
	2-1 Homework: Module Two
	2-2 Quiz: Modules One and Two
	2-3 Final Project Milestone One: Virus and Bacterium Selections
3	Operon Regulation
	Microbiology With Diseases by Body System, Chapters 7 and 8
	3-1 Discussion: Operons
	3-2 Homework: Module Three
4	Viruses and Oncogenesis
	Microbiology With Diseases by Body System, Chapters 7 (reread) and 13
	4-1 Homework: Module Four
	4-2 Quiz: Modules Three and Four
5	Antibiotics and Microbicides
	Microbiology With Diseases by Body System, Chapters 9 and 10
	5-1 Homework: Module Five
	5-2 Final Project Milestone Two: Disease Pathology and Management
6	Immunity and Vaccination
	Microbiology With Diseases by Body System, Chapters 15, 16, and 17
	6-1 Homework: Module Six
	6-2 Quiz: Modules Five and Six
7	Specific Microbial Diseases
	Microbiology With Diseases by Body System, Chapters 19, 22, and 24
	7-1 Homework: Module Seven
	7-2 Final Project Submission: Analysis of Infectious Disease Processes
8	Environmental and Foodborne Diseases
	Microbiology With Diseases by Body System, Chapter 25
	8-1 Homework: Module Eight
	8-2 Quiz: Modules Seven and Eight

### **Attendance Policy**

Online students are required to post to the Blackboard discussion board during the first week of class. If a student does not submit a posting to the discussion board during the first week of class, the student is automatically withdrawn from the course for non-participation. Review the <u>full attendance policy</u>.

#### **Late Assignments Policy**

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the full late assignment policy.

### **SNHU College of Online and Continuing Education Guide to Student Success**

Review the guide to student success.

### **Diversity and Disability Statement**

The College of Online and Continuing Education (COCE) at SNHU values diversity and inclusion. SNHU strives to create inclusive and welcoming academic environments. If there are aspects of the instruction or design of this course that present barriers to your inclusion, please notify the Disability Resource Center (DRC) as soon as possible. We will work with you and your instructor to address needs and concerns.

We encourage all students with known or suspected physical, medical, sensory, psychiatric, and/or learning disabilities to register with the Disability Resource Center (DRC) in order to assess learning needs and take advantage of available academic accommodations and support services. We look forward to hearing from you. Our contact information is below.

Disability Resource Center (DRC) (877) 591-4723 (select option 4) (877) 520-8916 (fax) drc@snhu.edu

We welcome COCE students, faculty, and staff to consult with the Disability Resource Center (DRC) on disability-related questions or concerns.

### **Academic Honesty Policy**

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the <u>full academic honesty policy</u>.

#### **Copyright Policy**

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the <u>full copyright policy</u>.

# **SNHU College of Online and Continuing Education Withdrawal Policy**

Review the <u>full withdrawal policy</u>.

# **Southern New Hampshire University Policies**

More information about SNHU policies can be found on the <u>policy page</u>.