

# MICROBIOLOGY

<b>Instructor:</b>	Dr. Ronald Sizemore	<b>BIO 425</b>
<b>Office:</b>	Center for Marine Science 1118 , Friday 1002A	<b>Spring 2010</b>
<b>Telephone:</b>	962-2304	<b>Office hours: MWF 9:00-9:45</b>
<b>Email:</b>	Sizemorer@uncw.edu	<b>or by Appointment</b>

<u>No.</u>	<u>Date</u>	<u>LECTURE</u>		<u>LABORATORY</u>		
		<u>Topic</u>	<u>Chapter</u>	<u>Date</u>	<u>Lab Number</u>	
1	Jan 6	Microbiology	1	Jan 7	Lab Protocol	
2	Jan 8	History	1			
3	Jan 11	Microscopes	4	Jan 12	1, 5	
4	Jan 13*	Cell Biology	4	Jan 14	6, 8	
5	Jan 15	----	4			
<b>*** Martin Luther King Holiday January 18 ***</b>						
6	Jan 20	Microbial Nutrition	5	Jan 19	10, 11, 12	
7	Jan 22	Microbial Metabolism	5	Jan 21	14	
8	Jan 25	Microbial Growth	6	Jan 26	15, 16, 17	
9	Jan 27	Control of Microbial Growth	20	Jan 28	18(demo), 9, 19	
<b>10</b>	<b>Jan 29</b>	<b>TEST I</b>	-			
11	Feb 1	Control of Growth (contd.)	20	Feb 2	20, 26, 28	
12	Feb 3	Molecular Biology	7	Feb 4	26, 28, DNA Extraction	
13	Feb 5	----	7			
14	Feb 8	Gene Regulation	8	Feb 9	38, 39	
15	Feb 10	----	8	Feb 11	40, Decarboxylase Rx	
16	Feb 12	Bacterial Genetics	10			
17	Feb 15	----	10	Feb 16	30	
18	Feb 17	Virology	9	Feb 18	31, 32, 34	
19	Feb 19	Human-Microbe Interactions	21			
<b>20</b>	<b>Feb 22</b>	<b>TEST II</b>	-	Feb 23#	58	
21	Feb 24	Immunology	22	<b>Feb 25</b>	<b>LAB TEST I</b>	
22	Feb 26	Epidemiology	25			
23	Mar 1	Person to Person Diseases	26	Mar 2	36	
24	Mar 3	----	26	Mar 4	36	
25	Mar 5	Vector Transmitted Diseases	27			
<b>*** Spring Vacation – March 6 – March 14 ***</b>						
26	Mar 15	Diseases (contd.)	27	Mar 16	36	
27	Mar 17	Water Treatment & Waterborne Diseases	28	Mar 18	36	
28	Mar 19	Diseases (contd.)				
29	Mar 22	Food Microbiology	29	Mar 23	DNA ext.& PCR	
<b>30</b>	<b>Mar 24</b>	<b>TEST III</b>	-	Mar 25	Gel & Gene Clean	
31	Mar 26	Clinical Microbiology	24			

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		<u>Topic</u>			<u>Lab number</u>
32	Mar 29	Microbial Genomics	15	Mar 30	Gel & Gene clean
33	Mar 31	Genetic Engineering	31		
		<b>*** Easter Vacation - April 1</b>			
		<b>- 4***</b>			
34	Apr 5	Biotechnology	31	Apr 4	Sequencing
35	Apr 7	Microbial Systematics	11	Apr 6	Seq. analysis, 47
36	Apr 9	Industrial Microbiology	30		
37	Apr 12	- - - -	30	Apr 14	47, 52
38	Apr 14	Metabolic Diversity	17	Apr 16	47, 52, Propagated Epidemic
39	Apr 16	Prokaryotic Diversity: Bacteria	12		
40	Apr 19	Prokaryotic Diversity (contd.)	12	Apr 20	33,46,51
<b>41</b>	<b>Apr 21</b>	<b>TEST IV</b>	-	Apr 22	<b>LAB TEST II</b>
42	Apr 23	Prokaryotic Diversity: Archaea	13		
43	Apr 26	Prokaryotic Diversity (contd.)	13		

**\*\*\* April 28 – 8 am – FINAL EXAM \*\*\***

\* January 13 = Last Day to add or drop without a grade

# February 24 = Last day to withdraw with W

**THE DEPARTMENT OF BIOLOGICAL SCIENCES STRONGLY SUPPORTS  
THE ACADEMIC HONOR CODE AS STATED IN THE STUDENT HANDBOOK AND  
CODE OF STUDENT LIFE AND WILL NOT TOLERATE ACADEMIC DISHONESTY**

### Grading:

#### Lecture Grade:

<b>Tests (4)</b>	<b>150 points each</b>
<b>Final exam</b>	<b>150 points</b>
	<b><u>Lecture subtotal</u> = 750 points</b>

#### Laboratory Grade:

<b>Lab Tests</b>	<b>100 pts</b>
<b>(2 –50 points each)</b>	
<b>Unknown Culture ID</b>	<b>50 points</b>
<b>Lab Notebooks</b>	<b>50 points</b>
<b>Evaluation</b>	<b>50 points</b>
	<b><u>Lab subtotal</u> = 250 points</b>
<b>TOTAL</b>	<b>100 % = 1000 points</b>

#### Total Points for Course

#### Grades:

**A = 90 – 100 %**

**B = 80 – 89 %**

**C = 70 – 79 %**

**D = 60 –69 %**

**F = > 60%**

**W = < 60 %**

**( +/- Grades will not be assigned in this course)**

**Note:**

1. **Test dates** will not be changed except under extraordinary circumstances (e.g. hurricanes, snowstorms, etc).
2. Copies of the **old tests** are available for viewing on the Internet at <http://people.uncw.edu/sizemorer/rkswww> (this site contains other material relevant to the course).
3. **You are NOT allowed to drop or miss a TEST.** If uncontrollable circumstances prevent you from taking a test, you **MUST** notify me (e.g. telephone or email and leave a message) with an acceptable excuse at or before the time of the test. The instructor reserves the right to define what is an acceptable excuse. General examples: **Simply not being prepared is NOT an acceptable excuse**, while sickness, family emergencies and transportation problems are generally sufficient excuses. If you are excused from taking a test, the 3 remaining tests will count 200 points each (the Final Exam will still count 150 pts). Missing 2 tests will result in a grade of 0 for the second missed test.
4. Please be sure to **turn off** your cell phones before lecture starts and **during exams.** **Restroom breaks** are not allowed during exams.
- 5 **Attendance** at lectures is strongly recommended but not required. You are required to attend when tests are given. Attendance in **laboratory is mandatory** and any absences could result in a lower lab grade. **Tardiness** is disruptive to the class and will result in lower evaluation scores.
6. A **lab coat** is required for every lab. Safety goggles will be worn for some labs. A set of colored pencils is needed for laboratory drawings.

**TEXT:**

**Lecture:** M. T. Madigan, J. M. Martinko and J. Parker. **Brock Biology of Microorganisms** (11<sup>th</sup> Edition, 2006). Used copies available online. (This text is not required but is recommended)

**Laboratory: Custom Lab Manual taken from H. J. Benson. Microbiological Applications** You must buy a new lab manual – used manuals are unacceptable! Manual are available in local bookstore. Do not order this manual online as the manual is customized for this course (Required)

**UNCW practices a zero-tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273, Campus Police at 962-3184, or Wilmington Police at 911. For University or community resources visit <http://uncw.edu/wrc/crisis.htm>.**