

**BSC 1005      General Education Biology, Syllabus      Fall 2010 (2010-1)**

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**Goals and Objectives:** • Become acquainted with the basic chemistry of life, and with cells, the basic unit of life. • Learn the fundamental properties of life. • Understand some of the main processes that sustain life, such as cellular respiration, cell division, and photosynthesis. • Become acquainted with biological diversity. • Gain an understanding of genetics and evolution. • Understand how organisms interact with their environment.

**The Learning Outcomes:** Miami Dade College (MDC) has established ten Learning Outcomes to promote student learning. This course will help students master the following Learning Outcomes:

1. Communicate effectively using listening, speaking, reading, and writing skills.
3. Solve problems using critical and creative thinking and scientific reasoning.
4. Formulate strategies to locate, evaluate, and apply information.
8. Use computer and emerging technologies effectively.
10. Describe how natural systems function and recognize the impact of humans on the environment.

**Course outline\*\***

<b>Date</b>	<b>Topics</b>	<b>Required readings</b>
<b>8/24</b>	Introduction	Syllabus
<b>8/26</b>	Science as a Way of Learning	Chapter 1
<b>8/31</b>	Fundamental Building Blocks	Chapter 2
<b>9/2</b>	Fundamental Building Blocks	Chapter 2
<b>9/7</b>	Biological Molecules	Chapter 3
<b>9/9</b>	Biological Molecules	Chapter 3
<b>9/14</b>	The Cell	Chapter 4
<b>9/16</b>	The Cell	Chapter 4
<b>9/21</b>	The Plasma Membrane	Chapter 5
<b>9/23</b>	Review	
<b>9/28</b>	<b>Test 1</b>	<b>Chapters 1-5</b>
<b>9/30</b>	An Introduction to Energy	Chapter 6
<b>10/5</b>	Deriving Energy from Food	Chapter 7
<b>10/7</b>	Deriving Energy from Food	Chapter 7
<b>10/12</b>	Photosynthesis	Chapter 8
<b>10/14</b>	Photosynthesis	Chapter 8
<b>10/19</b>	Review	
<b>10/21</b>	<b>Test 2</b>	<b>Chapters 6-8</b>
<b>10/26</b>	Genetics and Cell Division	Chapter 9
<b>10/28</b>	Genetics and Cell Division	Chapter 9
<b>11/2</b>	Meiosis	Chapter 10
<b>11/4</b>	Meiosis	Chapter 10

11/9	Mendel and his Discoveries	Chapter 11
11/11	<b>Holiday</b>	
11/16	Chromosomes and Inheritance	Chapter 12
11/18	Review	
11/23	<b>Test 3</b>	<b>Chapters 9-12</b>
11/25	<b>Holiday</b>	
11/30	DNA structure and Replication Transcription, Translation, and Regulation	Chapters 13 & 14
12/2	Evolution	Chapter 16
12/7	An Interactive Living World	Chapter 33
12/9	<b>Review</b>	
12/14	<b>Test 4</b>	<b>Chapters 13, 14, 16 &amp; 33</b>
12/16	<b>Test 4</b>	<b>Chapters 13, 14, 16 &amp; 33</b>

**\*\* this is subject to change**

### **Important dates for Summer 2010**

August 23, 2010- First day of classes

August 27, 2010- Last day to drop classes with 100% refund

December 10, 2010- Last day of classes

Final class grades will be available at the <https://mymdc.mdc.edu/> website

### **REQUIRED:**

- **Biology Textbook**

Title: Biology: A Guide to the Natural World. Fourth Edition

Year: 2008

Author: David Krogh

Publisher: Pearson Benjamin Cummings

- **Mastering Biology Website**

Register at:

<http://www.masteringbiology.com/site>

### **GRADING**

- **Online Assignments & Practice Tests:** 30% (150 points)
  - Online assignments will be completed at [www.masteringbiology.com](http://www.masteringbiology.com)
  - The purpose of the online assignments and practice tests is for you to review the material presented in class.
  - Detailed instructions for the assignments and an assignment schedule will be administered in class.
- **Student Presentations:** 10% (50 points)
  - Students will work in groups of 4-5
  - Presentation topics will be chosen during the first week of class

- Each group will be scheduled to present during class. Presentations should be 5-10 minutes long and should include a visual aid (PowerPoint, PhotoStory, etc.) and a 2-3 page written report.
- **Tests:** 60% (300 points, 75 points each)
  - Questions will be multiple choice (approximately 50 questions per test)
  - Tests will cover text and lecture material.
  - Make-up tests will only be given to students with a *legitimate* excuse, such as a doctor's note. Students with unexcused absences will receive a zero for that test. The student is responsible for contacting the instructor within a week of the missed test to schedule a make-up.
- **Service-Learning Project**
  - Instead of taking one of the tests, or to replace the lowest test grade, students may choose to conduct a Service-Learning Project.
  - The Service-Learning Project involves 15 hours of service at a partner agency of the Center of Community Involvement (CCI) at MDC, and a written reflection about the experience.
  - Detailed instructions on how to conduct the Service-Learning Project will be administered during the first week of class.
  - Students **MUST** inform the instructor that they will be conducting a Service-Learning Project within the first two weeks of class. Within the first two weeks of class students **MUST** also choose a topic and the proposed partner agency where the service hours will be conducted.
  - The Service-Learning Project should be turned in no later than November 9, 2010.
- **Attendance and participation:**
  - Attendance is **MANDATORY**. Students are expected to participate in class and must read the assigned material prior to class.
  - Students that are absent more than three times during the semester might be dropped from the class.
  - Roll will be taken during the first five minutes of class. Arriving late to class will result in an unexcused absence.
  - Unexcused tardiness and absences will lower your grade.
  - Students must be present for the entire duration of the lecture. Leaving before class is over will result in a lowered grade.

To calculate final grades, the points a student obtained for “**Online Assignments & Practice Tests**”, “**Student Presentations**” and “**Tests**” will be added. The corresponding letter grade will be determined as shown below.

<b>Total points</b>	<b>Percentage (%)</b>	<b>Letter grade</b>
450-500	90-100	A
400-449	80-89	B
350-399	70-79	C
300-349	60-69	D
0-299	0-59	F

### **Academic Honesty**

Academic misconduct of ANY kind will not be tolerated. Academic misconduct includes cheating and plagiarism.

- Any student caught cheating will receive an F for that quiz or test.
- Plagiarism: to pass another's ideas as your own. Students should only present their original work.
- Unless otherwise stated assignments are individual. If the work, or a portion of the work of two students has the same ideas in the same order both students will receive a zero for that assignment.
- Any ideas that are not your own should be given the appropriate credit (i.e. citation).

In the event that academic misconduct occurs the procedures specified [Students Rights and Responsibilities Handbook](#) (pg. 19) will be followed.

\*\*The use of phones, pagers, etc. is **NOT** allowed during exams. Please turn off, or put on silent, all communication devices during class. Any student caught using an electronic device during a test or quiz will receive an F for that quiz or test.

### **Americans with Disabilities Act (ADA) Statement**

Students who have a disability that might affect their performance in the class are encouraged to contact Access Services, in confidence, as soon as possible. The office will aid in appropriate accommodations for the student. This is in accordance with Section 504 of the Rehabilitation Act of 1973 and the American with Disabilities Act of 1990.

### **Class Policies**

- No overrides will be given to students that were not registered in this class before the 100% refund date.
- Only “**ONE**” override will be given per student per course during any one semester.
- Any student that misses three consecutive classes without contacting the instructor (via email or phone) might be dropped from the course.
- If you miss a lecture test without a **VALID** medical excuse, I recommend that you drop the course.
- Cell phones and other communication devices should be turned off during class.
- A student that disrupts the class on repeated occasions will be asked to leave. A student may disrupt the class by:
  - Holding a conversation with a classmate during lecture
  - Leaving and returning to class
  - Disruptions caused by cell phones and other communication devices