BIOL 101 – Principles of Biology  
Fall 2008

Instructors  
TR 8:00 ------ Dr. Jim Daniels, Pratt 103; phone 4470; geneflow@huntingdon.edu  
MWF 8:00---- Dr. Erastus Dudley, Pratt 105; phone 4582; tdudley@huntingdon.edu  
9:30 TR ------- Dr. Paul Gier, Pratt 106; phone 4510; pgier@huntingdon.edu  
9:15 MWF---- Dr. Steve Guthrie, Pratt 108; phone 4218; sguthrie@huntingdon.edu

Office Hours  
Instructor’s scheduled office hours (these vary by section): __________________________________________
You are welcome and encouraged to drop by the instructor’s office to discuss any problems you’re having with the class. If you would like help outside of the scheduled office hours, please make an appointment. We, the Biology faculty, welcome your questions and are eager to help you succeed in this course, so take advantage of this fact and come find us if you need help.

Text  
Johnson & Losos, Selected Chapters from Essentials of the Living World, 2nd Ed. McGraw-Hill. (We have selected chapters from a two-semester book to make a leaner text; it’s available in the bookstore.)

Course Description  
This survey course provides an introduction to the biological sciences, including a historical perspective, scientific philosophy, and the basic principles of biochemistry, cell biology, genetics, and evolution.

Course Objectives  
At the end of this course, you will demonstrate an understanding of:
  1. the scientific method and the practice of biology;
  2. the fact that living organisms are subject to the laws of chemistry and physics;
  3. the cell as the basic unit of life, its structure, reproduction, physiology and metabolism;
  4. the mechanisms and patterns of inheritance, the sources of genetic variability, and the functioning of genes;
  5. the origin and development of life on Earth as a product of organic evolution, and the mechanism of adaptation and speciation through natural selection;
  6. the ecological foundations of biological systems.

Grading  
Final grades will be computed as follows*:
   Average of hourly exams (3 or 4)-----50%  
   Final comprehensive exam -------------25%  
   Quizzes -------------------------------------25%  
*Please note that class participation or other criteria may be added to the grade calculation. See #2 under Departmental Policies, next page.

From this numerical grade, the letter grade will be calculated from the following scale:
   90 – 100 = A → outstanding
   80 – 89 = B → very good
   70 – 79 = C → satisfactory
   60 – 69 = D → poor but passing
   < 60    = F → failure

Exam and Quiz Schedule  
Your instructor will explain the specific schedule of exams and quizzes pertinent to your section.
Biology 101 Online:
An online syllabus may be found at http://fs.huntingdon.edu/biology/

Department and College Policies:
1. Attendance: All students are required to attend, at a minimum, 75% of the meetings of every class in which they are enrolled. Individual faculty may set more stringent attendance policies. Failure to meet minimum attendance requirements will result in a failing grade. Students are expected to arrive for class on time. Students are expected to provide adequate notification of expected absences, and to make up missed work or examinations according to the faculty member’s criteria.

2. Effort and Involvement: Students who are punctual, regular in attendance, inquisitive, proactive and contributory can expect to benefit from this. Vice versa for those whose efforts are minimal. This component of evaluation may be up to 10% of the final grade.

3. Honor Code Issues: Huntingdon College has an honor code that all members of the College community are expected to respect. This means that one does not lie, cheat or steal and does not tolerate those who do. This class will be conducted under the assumption that each person is trustworthy. Violation of this trust will result in an assigned “F” in the course and further action by the Judicial Board.

4. Chain of Command: If you have difficulties or complaints related to this course, your first action should be to discuss them with the instructor. If such a discussion would be uncomfortable for you or fails to resolve your difficulties, you should contact Dr. Paul Gier, Chair of The Department of Biology and Cell Biology (Pratt 106, Phone 833-4510). If you still are unsatisfied, you should discuss the matter with the Dr. Erastus Dudley, Dean of The School of Mathematics and Sciences (Pratt 105, Phone 833-4582). Should you remain unsatisfied you may speak to Dr. Kyle Fedler, Vice President for Academic Affairs and Dean of Faculty (Flowers 105, Phone 833-4236)

5. Accommodation of Special Needs: Faculty at Huntingdon College make every effort to accommodate unique and special needs of students with respect to speech, hearing, vision, seating, or other possible adaptions. Please notify the Disability Services Intake Coordinator, Ms. Camilla Irvin, as soon as possible of requested accommodations.

Your 5-step Plan to Succeeding in This Course:
1. Prepare for each lecture by: a) studying the last day’s worth of notes, and b) skimming the required reading in advance. (This should take about 20-40 minutes; it’s too much to cram into the five minutes you spend waiting for class to begin.)

2. Have EXCELLENT attendance, be on time so you don’t miss the quizzes, and take EXCELLENT notes. If you have to drink caffeinated beverages to stay alert in lecture, do it.

3. After each lecture, recopy the notes, incorporating the book’s perspective so that the new set of notes combines concepts and examples from both lecture and text.

4. In addition to recopying the notes (which itself is a form of studying), make a weekly schedule for reading and studying the recopied notes. STICK TO THE SCHEDULE! Many brief study sessions are better than one 10-hour cram session before the test.

5. Live life in balance. Make sure that every day incorporates some attention to each of your classes, some physical exercise, and some socializing and fun.
FAQ'S (Frequently Asked Questions) and Test Policies

• “What if I miss a class?”
  You are responsible for any information given out in lecture; this includes notes, announcements, and handouts. If you miss a class, make sure you get a copy of the notes and announcements from someone. You can catch me in my office or in the next class meeting for missed handouts. Remember that I won’t “track you down” to make sure you get everything you need.

• “Do you give make-up tests?”
  I give make-up exams for three reasons:
  a) if you miss the test for a school-related event (e.g., athletic event), in which case you must let me know in advance of the test;
  b) if you are sick, in which case see the next question, below;
  c) if there are serious personal reasons, as long as they are reasonable and have been worked out with me in advance.
  YOU are responsible for scheduling the make-up test (do not wait for me to contact you), and the make-up test may be different from the one everyone else takes.

• “So, what do I do if I’m sick for a test?”
  Let me know ASAP. Call me before the test or AT LEAST immediately after. You must have a doctor’s note to receive a make-up exam. Yes, this is required. If I don’t receive a contact from you on the day of the test, you’ve lost the chance for a make-up.

• “Do you give make-up quizzes?”
  No. You have to attend the lecture (and be on time!) to take the quiz. However, if you miss a quiz and would like to see what questions were asked (a good idea, because similar questions may be asked on exams), let me know and I’ll give you a copy of the quiz.

• “What are the classroom etiquette rules?”
  -Turn off cell phones and other potential sources of distraction.
  -Show up on time; it is disruptive to have people filing in late or leaving early. If you do this frequently, then maybe this isn’t the semester to take this course.
  -No laptops allowed on during class time.
  -Stay awake; when you fall asleep in class, it is simultaneously (a) useless to you, and (b) funny to everyone else.
  -Ask questions when I’m unclear, and ask me to slow down if I go too fast. I always welcome questions of any nature, so please ask away.

• “What if I miss more than 25% of the classes, but it’s for legitimate reasons?”
  You will still fail the class. The 25% attendance rule is Huntingdon College policy.

• “Am I still counted absent if I arrive late?”
  Yes. I use the quizzes as my attendance record. If you miss the quiz, you are technically absent for the day.

• “Is the course graded on a curve?”
  No. The performance of any student does not in any way affect the grades received by anyone else.
**Lecture Schedule**

This schedule is tentative and serves for planning purposes. Any changes will be announced in lecture.

<table>
<thead>
<tr>
<th>Week beginning</th>
<th>Topic</th>
<th>Text Chapter</th>
<th>Holidays</th>
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<tbody>
<tr>
<td>Aug 25</td>
<td>Science of Biology</td>
<td>1</td>
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<tr>
<td>Sept 1</td>
<td>Evolution and Ecology</td>
<td>2</td>
<td>No classes Monday</td>
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<tr>
<td>Sept 8</td>
<td>Chemistry of Life</td>
<td>3</td>
<td></td>
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<tr>
<td>Sept 15</td>
<td>Molecules of Life</td>
<td>4</td>
<td>No classes Friday</td>
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<td>Sept 22</td>
<td>Cells</td>
<td>5</td>
<td></td>
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<tr>
<td>Sept 29</td>
<td>Energy and Life; Photosynthesis</td>
<td>6, 7</td>
<td>No classes Friday</td>
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<tr>
<td>Oct 6</td>
<td>Cell Respiration (How Cells Harvest Energy)</td>
<td>8</td>
<td>No classes Friday</td>
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<tr>
<td>Oct 13</td>
<td>Cell Division: Mitosis, Meiosis</td>
<td>9, 10</td>
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<td>Oct 20</td>
<td>Genetics</td>
<td>11</td>
<td>No classes Friday</td>
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<tr>
<td>Oct 27</td>
<td>DNA: The Genetic Structure</td>
<td>12</td>
<td></td>
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<tr>
<td>Nov 3</td>
<td>How Genes Work; The New Biology</td>
<td>13, 14</td>
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<td>Nov 10</td>
<td>Evolution and Natural Selection</td>
<td>15</td>
<td>No classes Friday</td>
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<td>Nov 17</td>
<td>Evolution and Natural Selection, cont.</td>
<td>15</td>
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<td>Nov 24</td>
<td><em>Thanksgiving week</em></td>
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<td>No classes this week</td>
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<tr>
<td>Dec 1</td>
<td>Exploring Biological Diversity</td>
<td>16</td>
<td>Friday = last day of class</td>
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<td>Review for final exam</td>
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**Final Exam Schedule:**
- Dr. Daniels’ section (TR 8:00) ➔ Final on Monday, Dec. 8, 8:30am
- Dr. Dudley’s section (MWF 8:00) ➔ Final on Tuesday, Dec. 9, 8:30am
- Dr. Gier’s section (TR 9:30) ➔ Final on Monday, Dec. 8, 2:30pm
- Dr. Guthrie’s section (MWF 9:15) ➔ Final on Wednesday, Dec. 10, 8:30am

**Other important dates:**
- Aug 29 – last day to drop the class; last day to add a course with permission of advisor only.
- Sept 26 – last day to drop the class and receive a grade of W (withdrawal).
- Oct 31 – last day to drop the class and receive a grade of either WP (passing) or WF (failing).