Course Title and Number: Principles of Biology BSC 121  
Semester and Year: Fall 2018  
Days/Time: Lecture: Monday, Wednesday, Friday 9:00-9:50, room S-376  
Lab sections: 101 (T 11:00-12:50, RM S-203), 102 (W 10:00-11:50, RM S-203)

Instructor:  
Name: Dr. Jayme L. Waldron  
Office: S-378  
Office Hours: Tuesday 10:30-11:30, or by appointment (I prefer appointment)  
Office Phone: 696-3361  
Email: waldron3@marshall.edu

Use email to contact me (do not send messages via blackboard). If you send email from accounts other than your Marshall email, there is a very good chance I will not see them. Use your Marshall accounts for email communications.

Office hours: I make every effort to keep scheduled office hours. Please be aware that sometimes there are conflicts with required meetings, and I cannot be present. When possible, I will make announcements on muOnline if I am unable to make scheduled office hours. I strongly encourage you to make an appointment if you need to meet with me.

Course Description: A continuation of the study of basic biological principles common to all organisms. Evolution, diversity of life, structure, function, and ecology. Intended for science majors and pre-professional students.

Credit: 4 credit hours in biological sciences  
Prerequisites: BSC 120 with a grade of C or better.

University Policies: By enrolling in this course, you agree to the University Policies listed below. Please read the full text of each policy by going to www.marshall.edu/academic-affairs and clicking on “Marshall University Policies.” Or, you can access the policies directly by going to http://www.marshall.edu/academic-affairs/?page_id=802

Academic Dishonesty/ Excused Absence Policy for Undergraduates/ Computing Services Acceptable Use/ Inclement Weather/ Dead Week/ Students with Disabilities/ Academic Forgiveness/ Academic Probation and Suspension/ Academic Rights and Responsibilities of Students/ Affirmative Action/ Sexual Harassment

Policy for Students with Disabilities: Marshall University is committed to equal opportunity education for all students, including those with physical, learning and psychological disabilities. University policy states that it is the responsibility of students with disabilities to contact the Office of Disability Services (ODS) in Prichard Hall 117 (304.696.2467) to provide documentation of their disability. Following this, the ODS Coordinator will send a letter to each of the student’s instructors outlining the academic accommodation he/she will need to ensure equality in classroom experiences, outside assignment, testing, and grading. The instructor and student will meet to discuss how the accommodation(s) requested will be provided. For more information, access the website for the Office of Disabled Student Services: http://www.marshall.edu/disabled
Text Information:

Other required Materials:
1. Connect Plus Account Access
3. Safety goggles

COURSE OBJECTIVES: The purpose of this course is to familiarize students with the study of living organisms. Students will be exposed to various aspects of the body of biological knowledge through an overview of all major taxonomic groups, from bacteria to mammals, including the relationships between organism form and function. At the conclusion of this course you should have concrete knowledge of the biological sciences; understand the process of science through experimentation and hypothesis testing; and hopefully gain an appreciation and a sense of wonder inspired by the complexity of living organisms.

Desired Learner Outcomes:
• Students will synthesize information, think critically, and solve critical thinking problems.
• Students will be able to distinguish between the terms adaptation, fitness, natural selection and evolution.
• Students will identify the relationships between form and function at the levels of biological organization.
• Students will demonstrate an understanding of the methods of science used in scientific investigation by conducting scientific investigation, analyzing and interpreting data, and preparing a scientific paper.
• Students will apply principles of scientific inquiry, differentiate a theory from a hypothesis, and differentiate fact from opinion in regard to biological sciences.
• Students will practice working collaboratively through laboratory studies and experiments.

Grading Policy: Grading scale will be as follows:
90-100% = A  80-89% = B  70-79% = C  60-69% = D  ≤ 59% = F

Grades will be based on lecture and lab assignments as follows:
Exams (3)  48%
Final Exam  17%
Online quizzes  10%
Lab grade  25%

Lecture exams: There will be three lecture exams, plus a final. Material on examinations can include information from lectures and assigned readings/videos. Please notify me in advance if you know you will miss an exam (see Attendance Policy below). In case of university closure on an exam day, the exam will be rescheduled for the next lecture session.

Online Quizzes: Weekly quizzes will be posted on Connect Plus and will cover textbook reading material scheduled for the week (see Table below). Quizzes will be open for one week. You will have the opportunity to take each quiz 3 times and you may use your text and your notes. On submission you will
be told which answers were incorrect. The quiz grade recorded will be the highest of the 3 attempts. After the submission time, the answers and explanations of the questions will become available for your review.

Labs: Your laboratory performance will account for 25% of your total course grade. This will be determined from laboratory data analyses, lab hand-ins, written lab reports and pre-lab quizzes. All lab reports, unless otherwise noted, must be handed to your TA and be on time. Neither Dr. Waldron nor other TA’s will accept the sheets or deliver them to your TA. Lab reports will only be accepted at the start of labs and late reports will not be accepted. You must be present in lab in order to hand in any type of lab report for credit. Lab quizzes may or may not be announced and cannot be made up.

Final Exam
The final exam will include 25% content from previous exams. The final exam is scheduled for Friday (December 14), 8:00-10:00.

ATTENDANCE POLICY: Students are expected to be on time for lectures, labs, and exams. Attendance in lectures is mandatory. You will need to sign-in to each class period. At the end of the semester, I may use attendance data to make decisions about borderline grades.

Attendance in laboratory is mandatory. You are expected to arrive on time for lab and stay until all assigned work is completed.

You are responsible for any material missed by being absent. Students are responsible for all activities and announcements that occur during class and are responsible for any material missed. Missed information should be obtained from classmates NOT from your instructor.

Missed exams due to illness, death in the family, or institutional activities will be excused only with an official university excuse. Make-up exams will be administered for excused absences only (see University Policies section below) on Tuesday, December 4 (during dead week), during my office hours. No exceptions. ANY UNEXCUSED ABSENCE FROM AN EXAM WILL RESULT IN A GRADE OF ZERO FOR THAT EXAM. If you arrive for an exam after the first person has handed in their exam, you will not being allowed to take the exam.

Electronic devices: Mobile phones are not permitted in class. You will be dismissed from class if you are caught texting or if your phone rings. You will be given an absence for the day. Please inform me should there be a need to have a cell phone on.

Audio or video recording of lectures is not permitted without prior consent of Dr. Waldron. Computers cannot be used during class. Notes must be taken using paper and writing utensils.

Computer Literacy: I use MUOnline (http://www.marshall.edu/muonline) to distribute course announcements, supplementary material, and study aids. Course materials are also located on the Connect Plus website.

Records: Students are encouraged to mark both the exam and answer sheet and return both at the end of the exam period. Should a question arise concerning grading, the answer sheet will be the official response. Exams and answer sheets will be kept for one semester or summer term following completion of the course. Grades will not be given or discussed over the phone or email. You must be present during lecture or lab to collect graded exams, quizzes, and lab reports. Students should keep all returned exams score sheets, quizzes, and lab
COURSE OUTLINE/DAILY/WEEEKLY SCHEDULE:

<table>
<thead>
<tr>
<th>Week (Dates)</th>
<th>Topic</th>
<th>Reading</th>
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<tbody>
<tr>
<td>Week 1 (Aug 20-24)</td>
<td>Course Introduction&lt;br&gt;Evolution&lt;br&gt;Natural Selection and Speciation</td>
<td>Ch. 23-25</td>
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<td>Week 2 (Aug 27-31)</td>
<td>Climate&lt;br&gt;Biomes&lt;br&gt;Behavioral Ecology</td>
<td>Ch. 54-55</td>
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<td>Week 3 (Sep 3-7)</td>
<td><strong>No Class Monday, September 3 (Labor Day)</strong>&lt;br&gt;Behavioral Ecology&lt;br&gt;Population Ecology&lt;br&gt;Species Interactions</td>
<td>Ch. 55, 56, 57</td>
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<td>Week 4 (Sep 10-14)</td>
<td>Species Interactions&lt;br&gt;Community Ecology&lt;br&gt;Ecosystem Ecology&lt;br&gt;&lt;strong&gt;Exam 1 (Friday, Sep 14)&lt;/strong&gt;</td>
<td>Ch. 57, 58, 59</td>
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<td>Week 5 (Sep 17-21)</td>
<td>Species &amp; Taxonomy&lt;br&gt;Bacteria &amp; Archaea</td>
<td>Ch. 25, 26, 27</td>
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<td>Week 6 (Sep 24-28)</td>
<td>Bacteria &amp; Archaea&lt;br&gt;Protists</td>
<td>Ch. 27-28</td>
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<td>Week 7 (Oct 1-5)</td>
<td>Protists&lt;br&gt;Plants &amp; the Conquest of Land</td>
<td>Ch. 28-29</td>
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<td>Week 8 (Oct 8-12)</td>
<td>Plants &amp; the Conquest of Land&lt;br&gt;&lt;strong&gt;Exam 2 (Friday Oct 12)&lt;/strong&gt;</td>
<td>Ch. 29</td>
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<td>Week 9 (Oct 15-19)</td>
<td>Evolution of Modern Plants&lt;br&gt;Fungi</td>
<td>Ch. 30-31</td>
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<td>Week 10 (Oct 22-26)</td>
<td>Animal Diversity&lt;br&gt;Vertebrates</td>
<td>Ch. 32-33</td>
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<td>Week 11 (Oct 29-Nov 2)</td>
<td>Invertebrates&lt;br&gt;Vertebrates</td>
<td>Ch. 33-34</td>
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<td>Week 12 (Nov 5-9)</td>
<td>Vertebrates&lt;br&gt;&lt;strong&gt;Exam (Mon Nov 5 OR Wed Nov 7)&lt;/strong&gt;&lt;br&gt;Animal Bodies &amp; Homeostasis</td>
<td>Ch. 34&lt;br&gt;Ch. 40</td>
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<td>Week 13 (Nov 12-16)</td>
<td>Nervous System&lt;br&gt;Muscular Skeletal Systems &amp; Locomotion&lt;br&gt;Nutrition &amp; Digestion</td>
<td>Ch. 41&lt;br&gt;Ch. 44&lt;br&gt;Ch. 45</td>
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<td>Week 14 (Nov 19-23)</td>
<td><strong>NO CLASS! Thanksgiving Break</strong></td>
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<td>Week 15 (Nov 26-30)</td>
<td>Energy Balance, Metabolic Rate, &amp; Body Temperature</td>
<td>Ch. 46-49</td>
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<td>Week 16 (Dec 3-7)</td>
<td>Circulation &amp; Respiration</td>
<td>Ch. 48-49</td>
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<td><strong>FINAL EXAM</strong></td>
<td><strong>(Friday, December 14)</strong>: Time: <strong>8:00-10:00</strong></td>
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