

**Biology 101 Section 5**  
**CONCEPTS AND APPLICATIONS IN BIOLOGY**  
Fall 2017, 4 credit hours

**Meeting time and Place:** M-W-F, 4:30pm - 5:20 pm, HWWE 213

**Instructor:** Bridget Piculell  
**Email:** [piculellb@cofc.edu](mailto:piculellb@cofc.edu)

**Office hours:** By appointment (contact me by email or talk to me after class)

**Required text:** *Biology: Concepts and Applications*, 9<sup>th</sup> ed.

### **About BIOL 101**

Designed for non-science majors, BIOL 101 provides a background for understanding and evaluating contemporary topics in biology and societal/environmental issues. Subject matter includes chemical, molecular, and cellular processes, as well as respiration, photosynthesis, and genetics.

Co-requisite: The associated, required laboratory is BIOL 101L.

### **Course Learning Objectives**

Students who successfully complete this course will gain an understanding in the methods and dynamic nature of science. Additionally, the material covered in this course will aid students in becoming informed citizens, comfortable with a variety of topics including genetics, basic cellular processes, molecular biology, and the process of scientific exploration.

Ideally, this course will lead to a greater appreciation of the science of biology, as well as provide students with the tools to understand and interpret contemporary topics in biology (e.g. environmental issues, genetics).

### **How to Do Well in BIOL 101**

Attendance: Arrive on time to attend all lectures and be an active participant in class. If you must miss a given lecture, arrange to get notes from a classmate.

#### In-Class:

1. **Stay attentive.** Listen and think about the material as lecture progresses.
2. **Take good notes.** Note-taking is a skill that takes practice to perfect. Work to identify and jot down important concepts and supporting key words; strive to be brief! It is inefficient and unnecessary to record every word from lecture slides.
3. **Actively think and ask questions.** If you don't understand a concept or if it is unclear to you what you should be learning from a particular lecture or how concepts fit together, then the best time to resolve your confusion is in class.
4. **Participate.** Ask questions if you have them!
5. **Respect the learning environment.** Do not behave in a way that is disruptive to other members of the classroom community (such as by talking, sleeping).

Out-of-Class: Study. Plan to devote multiple hours per week to studying biology outside of class. There are many ways to learn, but the goal is to understand the main concepts and support them with facts. Some guidance to help you achieve this goal:

- **Be prepared for lecture.** Read the relevant sections from your textbook *before* coming to lecture. After lecture, go back and read parts of the chapter that are relevant to lecture and work to synthesize material presented in lecture. You will likely have to re-read sections to develop a working knowledge of the concepts.
- **Review, rewrite, and refine your notes.** After class, revisit your notes to fill in gaps and to synthesize facts and concepts before moving on to new material. Having a grasp of material from previous lectures will make easier work of learning the new material and save you from cramming before exams.
- **Get help when you need it.** Seek answers immediately to questions that you think of during lecture or while reading and organizing your notes. I am happy to meet with you by scheduled appointment to discuss questions about the material.

## Course Policies

Academic Integrity: On all work submitted for credit by CofC students, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment”. The legal code of the College specifically prohibits plagiarism, cheating, bribing, conspiracy, misrepresentation, and fabrication. If it is proven that any student has committed any of the above infractions of the honor code, then that student will automatically fail the course with an XF. In addition, violations of the Academic Honesty Guidelines shall result in judicial action. Students should be aware that unauthorized collaboration (working together without permission) is a form of cheating.

Attendance: You are expected to attend all classes because it is to your benefit to hear lecture first-hand, and you must be in class to earn participation points, which make up a substantial part of your grade. There may be an occasion, however, when you are not able to make it to lecture. There will be quizzes and worksheets given during class periodically. These activities will have questions about subject matter that we have already covered, and are worth participation points. If you are not here to take the quiz or do the worksheet, you will not earn those points. You should not miss class unless you absolutely have no other choice. If you have a medical or family crisis, or are involved in College-sanctioned activities that require you to miss class, meet with Dr Piculell to discuss your circumstances.

OAKS: You have been assigned a College ID and an associated password for access to online resources, including the College of Charleston’s course management system known as OAKS. Enrollment in this class provides you with access to course information posted on OAKS. I will post quizzes, class announcements, grades, study questions, and other important information on OAKS regularly each week throughout the term; check often for this important information. If you have trouble with OAKS, please email or see Dr. Piculell.

### Accommodations for Disabilities

To request classroom accommodation, you must first register with the Center for Disability Services at the beginning of the semester. This office will provide you with documentation that you will then provide to us when you request accommodation. For more information, see <http://disabilityservices.cofc.edu/>

Contacting Dr. Piculell: Students are welcome to talk with me briefly as needed after class, but it is most productive to discuss issues or the material at length. Send an email to make an appointment. When sending an email, please be courteous and professional by 1) identifying yourself and the section

in which you are enrolled in your note or the subject line, 2) using proper English and complete sentences (no texting shorthand please), and 3) NOT opening your note with “Hey.”

Email: I routinely communicate with the class by email. Sometimes I will need to get a hold of you specifically and it will be important that you get the note. I will use the email address that the College provides to me, so it is important that you are able to access that account.

## Grading

Where lecture points come from	Point value
Lecture participation*	60
HW assignments	40
OAKS quizzes	100
Exam 1	100
Exam 2	100
Exam 3	100
Final (Comprehensive)	100
<b>MAXIMUM POINTS POSSIBLE</b>	<b>600</b>

\* based strictly on receiving answers on your in-class quizzes or worksheets

**Lecture is worth 75% of your final course grade. Laboratory is worth 25%**

% of Possible Points:

>93% = A

90-92% = A-

87-89% = B+

83-86% = B

80-82% = B-

77-79% = C+

73-76% = C

70-72% = C-

60-69% = D

<59% = F

## Description of Assessment:

Lecture participation: Occasionally we will begin or end class with a short quiz based on material that we have already covered. By taking the quiz, you will receive 5-10 points for participation for that day. I WILL NOT be grading the questions on the quiz, rather they are to help you assess where you are with your studying on the current material. Answers to the quizzes will be posted on OAKS, and will be a useful study guide for the exams. There will also be occasional in-class worksheets, worth 5-10 points each.

HW Assignments: Two homework assignments will be given throughout the semester, each worth 20 points. The timeline and content of the HW assignments will be announced during the semester.

OAKS quizzes: There will be quizzes posted on OAKS once a week on Friday (during weeks with no exam), based on the material covered in lecture during that week. Quizzes are worth 10 points each.

Exams: Exams are based on lecture material (which is derived from the textbook) and will consist of multiple-choice, short-answer, and true/false questions, each usually worth 2 points for a total of 100 points. The *comprehensive* final exam will take the same form as regular term exams, but will cover all topics from the semester (75% of exam), as well some new material from the last weeks of class (25% of exam). For each exam, you will need to provide your own scantron and number 2 pencil.

## Exam Policy

Three regular term exams are scheduled for this semester; all students are expected to be in class on these dates with an unused scantron and functioning pencil. We will have a final exam (25% new material, 75% comprehensive) during finals week.

Please be aware that **there are very few valid reasons for missing an exam.** With formal documentation from the Undergraduate Dean's Office of a valid reason for missing the exam, a student can make up a regular-term exam within one week of the missed test. It is the responsibility of the student to engage contact with the Instructor and arrange for a make-up exam. A make-up exam may take the form of multiple choice, short-answer, or essay questions, and may be written or oral, at Dr. Piculell's choosing.

**Proposed lecture schedule. Schedule will be updated in class and on OAKS as we progress throughout the semester. Check for updates!**

WEEK	DATES	LECTURE
1	Aug 23-25	Introduction to course Ch 1: The Science of Biology
2	Aug 28-Sept 1	Ch 1 cont Ch 2: The Chemical Basis of Life
3	Sept 4-8	Ch 2 cont Ch 3: The molecules of Life
4	Sept 11-15	Ch 3 cont <b>Exam 1: Friday Sept 15th</b>
5	Sept 19-22	Ch 4: Cell Structure Ch 5: Metabolism
6	Sept 26-29	Ch 5 cont Ch 7: Chemical energy / respiration
7	Oct 3-6	Ch 6: Photosynthesis
8	Oct 10-13	Ch 6 cont <b>Exam 2: Friday Oct 13th</b>
9	Oct 16-20	FALL BREAK! Oct 16, 17 NO SCHOOL Ch 11: Mitosis
10	Oct 23-27	Ch 11: Mitosis

		Ch 12: Meiosis
11	Oct 30- Nov 3	Ch 13: Mendel and trait inheritance
12	Nov 6-10	Ch 13 cont Ch 14: Human inheritance
13	Nov 13-17	Ch 14 cont <b>Exam 3: Friday Nov 17th</b>
14	Nov 20-24	Ch 8: DNA structure THANKSGIVING BREAK Nov 22-24
15	Nov 27-Dec 1	Ch 9: Protein synthesis Ch 10: Control of gene expression
16	Dec 4-Dec 8	Ch 15: Biotech