

**BIOL 112. Evolution, Form and Function of Organisms: Spring, 2020**  
**Section 10: Tuesday and Thursday, 1:40 PM – 2:55 PM, RITA 103**

**Instructor:** Andrew Clark, Ph.D.  
**Office location:** RITA 123  
**Office hours:** By appointment  
**Email:** [clarkaj@cofc.edu](mailto:clarkaj@cofc.edu)  
**Mailbox:** Biology Department Office, RITA 245-255

**Supplemental Instructor:** Anam Abid [abida1@g.cofc.edu](mailto:abida1@g.cofc.edu)

**Prerequisites:**

BIOL 111 lecture and lab (or equivalent); BIOL 112 lab (can be a co-requisite)

**Text:** *Biological Science*, 7<sup>th</sup> Edition, Scott Freeman.

**Course objectives:**

BIOL 112 provides students an introductory foundation in the processes of evolution, the unity and diversity of organisms, and the structure and function of plants and animals. Lectures will cover topics pertaining to adaptation, speciation, evolution, natural selection, and the comparative anatomy and physiology of plants and animals. Indeed, BIOL 112 is a challenging course within our sequence of introductory biology courses. With effort, students will find this experience valuable in developing critical thinking and scientific reasoning.

**Access to course information:**

The syllabus, additional reading material, and copies of PowerPoint lectures will be posted on OAKS. PowerPoint lectures will be posted after lecture. Major course announcements will usually be emailed to you, so please sign into OAKS and check your email regularly to stay up to flow with the course.

**Grading:**

Best three of four in-class exams; 100 points per exam (60%)

Best five of six in-class quizzes; 100 points for quizzes (20%)

Cumulative final exam; 100 points for final exam (20%)

Grade scale:

A (93-100%), A- (90-92%), B+ (88-89%), B (83-87%), B- (80-82%), C+ (78-79%),  
C (73-77%), C- (70-72%), D+ (68-69%), D (63-67%), D- (60-62%), F (<60%).

**Honor system and academic integrity:**

Academic dishonesty is unacceptable. Dishonesty includes, but is not limited to: cheating on an exam; stealing exam questions; substituting one person for another at an exam; falsifying data; destroying, tampering with, or stealing a computer program or file; and plagiarizing (using as one's own the ideas and writings of another). If you are caught cheating you will be reported to the Chair of the Biology department and receive a grade of 0 points for the paper, project, or exam in which the dishonesty was observed by the instructor. Additionally, you may also receive an F for the course and may receive additional disciplinary action.

Be familiar with the College of Charleston's Honor System:

<http://studentaffairs.cofc.edu/honor-system/>

**Special needs:**

The College will make reasonable accommodations for persons with documented disabilities.

Students should apply for services at the Center for Disability Services/SNAP located on the first floor

of the Lightsey Center, Suite 104. Students approved for accommodations are responsible for notifying me as soon as possible and for contacting me one week before accommodation is needed. For more information about disability services, please see <http://disabilityservices.cofc.edu>.

**Attendance:**

You are expected to attend all lectures. A significant portion of my lectures will be delivered with a chalkboard or whiteboard, which, unlike PowerPoint lectures, will not be posted on OAKS. If you miss a lecture on the day of a quiz or exam due to serious unforeseen matters (e.g. a medical crisis), you must provide an official excuse (e.g. an official note from a medical doctor) within seven days (including weekend days) of your absence. An absence memo alone will not suffice. You are responsible for obtaining and learning the material that you miss in lecture in the event of an absence.

**Lecture notes:**

Learning to listen and process information while taking notes on paper is a necessary skill for students and professionals. Taking notes on paper is especially important during BIOL 112 lecture, as most of my lectures are delivered with a chalkboard or whiteboard. However, in addition to chalkboard-style lectures, PowerPoint presentations may be delivered during lecture, and if delivered, will be posted on OAKS in pdf format after each lecture session. Obviously, the material I present on a chalkboard cannot be posted on OAKS.

**Exams:**

All exams consist of multiple-choice and short-answer questions, and cover all material from lecture, unless specified otherwise. The final exam will be cumulative. Quiz dates, if not specified on the tentative lecture schedule, will be announced in an earlier lecture. Each quiz normally takes ten minutes, is timed, and are usually is handed out to students at the beginning of a lecture session. It is important to arrive to class on time and ready to take the quiz or exam! If I mistakenly penalize you for points on a quiz or exam, you have seven days (including weekend days) upon receiving your graded test to contact me to arrange a time to review your test. Please be aware that when your test is under review, your instructor has the right, and responsibility, to review all parts of the test for mistakes. Following the review, I will record the appropriate changes to your test grade. Failure to contact me after seven days upon the receipt of your graded test will disqualify your test for review, even if there are mistaken penalties. If you have completed all four 100-point in-class exams during the semester, your instructor will drop your lowest scored exam and use your three higher scored exams when determining your final grade, which will be out of 500 points. This privilege will not be granted to students who have not completed all four in-class exams, and therefore, the scores from all three exams will be used in calculating those students' final grades, which will be out of 500 points.

**SI Sessions:**

Sessions begin on the week of January 21. There are many incentives for attending and participating in SI sessions this semester. In addition to enhanced learning, extra credit (up to 12 points) can be earned through attendance and participation in SI sessions. You can earn one point per SI session attended per week. There are usually two or three SI sessions scheduled per week, so attending and participating in one of these three sessions per week will grant you the extra credit point. Attending more than one SI session for a given week does not grant you more points for that week.

**Food & Housing Resources:**

Many CofC students report experiencing food and housing insecurity. If you are facing challenges in securing food (such as not being able to afford groceries or get sufficient food to eat every day) and housing (such as lacking a safe and stable place to live), please contact the Dean of Students for support (<http://studentaffairs.cofc.edu/about/salt.php>). Also, you can go to <http://studentaffairs.cofc.edu/student-food-housing-insecurity/index.php> to learn about food and housing assistance that is available to you. In addition, there are several resources on and off campus

to help. You can visit the Cougar Pantry in the Stern Center (2nd floor), a student-run food pantry that provides dry-goods and hygiene products at no charge to any student in need. Please also consider reaching out to Professor ABC if you are comfortable in doing so.

**Laboratory (BIOL 112L):**

BIOL 112L, the Evolution, Form and Function of Organisms Laboratory, is a separate course. You might be adding/dropping courses during the first week. Please use caution to avoid accidentally dropping yourself from a class you want to stay in (e.g. your BIOL 112 lecture). I have had students request that I add them in the 112 lecture after they have accidentally dropped it when trying to drop out of a different course (e.g. BIOL 112L). If your BIOL 112 lecture reaches maximum capacity, you will be unable to add yourself back in once you drop it, even if by accident. Please be careful.

| <b>Tentative Lecture Schedule</b> |       |   |                                       |
|-----------------------------------|-------|---|---------------------------------------|
| <b>Week</b>                       |       | <b>Topic</b>  | <b>Exams/Quizzes</b>                  |
| 1<br>(Jan 8)                      |       | Introduction to organismal biology  |                                       |
| 2<br>(Jan 14 & 16)                | Clark | Evolution by natural selection  |                                       |
| 3<br>(Jan 21 & 23)                | Clark | Speciation  | <b>Quiz 1 (Jan 23)<br/>20 points</b>  |
| 4<br>(Jan 28 & 30)                | Clark | Intro to plant form, function & diversity<br>Plant reproduction & development | <b>Exam 1 (Jan 30)<br/>100 points</b> |
| 5<br>(Feb 4 & 6)                  | Clark | Transpiration: water transport in plants                                      |                                       |
| 6<br>(Feb 11 & 13)                | Clark | Translocation: sugar transport in plants                                      | <b>Quiz 2 (Feb 13)<br/>20 points</b>  |
| 7<br>(Feb 18 & 20)                | Clark | Plant nutrition & sensory systems   | <b>Exam 2 (Feb 20)<br/>100 points</b> |
| 8<br>(Feb 25 & 27)                | Clark | Intro to animal form, function & diversity                                    |                                       |
| 9<br>(Mar 3 & 5)                  | Clark | Osmoregulation  | <b>Quiz 3 (Mar 3)<br/>20 points</b>   |
| 10<br>(Mar 10 & 12)               |       | <b>SPRING BREAK<br/>(No class from March 6-13)</b>                            |                                       |
| 11<br>(Mar 17 & 19)               | Clark | Animal nutrition and feeding  | <b>Quiz 4 (Mar 19)<br/>20 points</b>  |
| 12<br>(Mar 24 & 26)               | Clark | Electrical signals &<br>Sensory systems                                       | <b>Exam 3 (Mar 26)<br/>100 points</b> |
| 13<br>(Mar 31 & Apr 2)            | Clark | Musculoskeletal systems   |                                       |
| 14<br>(Apr 7 & 9)                 | Clark | Respiratory & cardiovascular systems  | <b>Quiz 5 (Apr 7)<br/>20 points</b>   |
| 15<br>(Apr 14 & 16)               | Clark | Endocrine system, immune system,<br>&<br>Animal reproduction and development  | <b>Quiz 6 (Apr 14)<br/>20 points</b>  |
| 16<br>(Apr 21 & 23)               | Clark | Loose ends and course sum-up  | <b>Exam 4 (Apr 21)<br/>100 points</b> |
| Tuesday Apr 28 (4pm-7pm)          |       | <b>Final Exam</b>   |                                       |