

Biology 102-03

Concepts & Applications in Biology II

College of Charleston, Spring 2016

Lecture: Section 3, Mon/Wed/Fri 8:30-9:20AM – HWWE 305

Instructor: Walter Blair

Office: HWWE 309 or 311 for office hours, 65 Coming St. Rm 102 by appointment

Office Hours: Mon/Wed/Fri 9:30-10:30AM, 12:30-1:30PM, and by appointment

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Course Overview

Course Description

This is a non-science majors' course, which will provide a background for understanding and evaluating contemporary topics in biology and societal/environmental issues. The course emphasizes physiology and anatomy of organisms, ecological and evolutionary concepts, biodiversity, and conservation biology. An understanding of methods, history, and dynamic nature of science will also be emphasized.

Shared Goals

Instructor	Students
Review key material.	Familiarize yourself with material and then come to lecture engaged.
Equip you for lab experiences.	Prepare for labs and be collaborative.
Teach you how to think like a scientist.	Be open to new ways of thinking.
Create a space for reflection and personal expression.	Be thoughtful and considerate of your classmates.
Be available for help out of class.	Let me know when you need help.

Lecture

BIOL 102/102L will continue building your foundation in the biological sciences and scientific process. My goal with this class is to combine traditional lecture with group explorations that encourage you to think and explore topics that interest you in a variety of ways.

Lectures will be based on PowerPoint presentations that will present key concepts and foster in-class discussions. Please note that the slides themselves do not contain everything you need to know – much of what you need to learn will be discussed in

class. Taking good notes during lecture is crucial to your success! Slides will be posted in .pdf format to OAKS shortly before each class, so the best way to prepare for class is to complete homework assignments, keep up with your work in lab, spend time with the textbook, and bring everything you need to take your own notes during class.

Your participation in regular group activities and discussions will also be important for your success in this class. Your responsibilities during group work are to work hard, stay positive, and treat your classmates with respect. You'll want to take notes on what you learn and what we discuss as a class during these activities.

Lab

Biol 102 lecture and lab is a single 4-hr course. This means that the lab grades will count for 25% of the determination of the grade for the whole course. The lab grade spreadsheet is consistent across lab sections, and your TA will send me your midterm and final lab grades to incorporate into the overall grade.

Required Materials

The text we are using for this lecture is the 2nd half of *Biology: Concepts and Applications* by Cecie Starr *et al.* (Ninth Edition). The lab notebook is required and can be purchased at SAS-E-INK on Calhoun St. All other required lecture materials will be made available on OAKS or hyperlinked in presentations.

It is important to note that OAKS will be your go-to for accessing course materials, finding assignment instructions and deadlines, and submitting assignments. It is therefore important to be comfortable using OAKS as well as sending and receiving Microsoft Office, OpenOffice, or equivalent files (eg .doc, .ppt).

Exams

You will take four exams for this course – three regular exams and a cumulative final. We will talk more about each exam later in the semester, and I will do my best throughout the semester to help you prepare for the types of questions that will be asked. I will hold out-of-class review sessions before each exam.

You will have the opportunity to replace one of the three regular exams with your final exam grade if, and only if, you satisfactorily complete your own practice exam and accompanying key for all four exams. The requirements for these practice exams will be explained later, and they are otherwise optional.

I will always make an effort to be available for office hours and appointments, but remember that things get crazy right before an exam! Don't wait until the week of an exam if you need individual help understanding the material. Review class material as you go and try to clear up confusion early on.

Assignments

There will be two types of graded take-home assignments this semester. The "Exercises" consist of six assignments that will help build a number of skills but will

predominantly be focused on 1) conducting solid background research, and 2) avoiding plagiarism. The “Brainstorms” consist of four assignments that allow you to express your thoughts and incorporate interdisciplinary knowledge and integrative thinking on topics that we cover. Both Exercises and Brainstorms will also serve to help you choose a topic and practice skills for your mini-presentation on the last two days of class. You will receive more specific guidance for all of these grade items as we go forward.

It is important to note that you will find assignment instructions on OAKS and upload your submissions to the appropriate OAKS folder. My feedback for each of you will in turn be uploaded to this same folder alongside your original submission. It is therefore important to be comfortable using OAKS as well as sending and receiving Microsoft Office, OpenOffice, or equivalent files (eg .doc, .ppt)

Grading

Grade Item	% of Final
Participation	10
Exam 1	10
Exam 2	10
Exam 3	10
Final Exam	10
Mini-Presentation	10
Exercises (6 total)	9
Brainstorms (4 total)	6
Lab	25

Score	Grade	Score	Grade
93-100	A	73-76	C
90-92	A-	70-72	C-
87-89	B+	67-69	D+
83-86	B	63-66	D
80-82	B-	60-62	D-
77-79	C+	0-59	F

Course Policies

Attendance

Lecture and Lab are mandatory. Lectures will include individual and group activities that determine your participation grade. It is the student’s responsibility to properly document all absences, obtain notes and handouts from other students, and contact me about any make up work.

Makeups & Late Assignments

A valid, documented excuse (see above) must be received in order to schedule a make-up exam or to submit an excused late assignment. Assignments that are due in class are due as soon as class starts and are considered late after that time. Missed tests and late assignments that are unexcused cannot be made up. The maximum possible points that can be earned for a late assignment will decrease by one letter grade per day.

Honor Code

On all work submitted for credit by students at CofC, 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. For more information about plagiarism, please visit www.plagiarism.org and talk to me if you have questions or concerns.

General Education Requirements

Please see the "General Education Requirements" document on OAKS for information on the College's expectations and evaluations of general education courses such as Biol 101 and 102.

Academic Assistance for Students

Accommodation 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, please see <http://disabilityservices.cofc.edu/>

Additional Resources

Counseling Resources, a writing lab, and a career resource center are all available to CofC students and are staffed with trained professionals. I encourage you to utilize the Center for Student Learning's (CSL) academic support services for assistance in study strategies, speaking & writing skills, and course content. They offer tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and the services are available to you at no additional cost. For more information regarding these services please visit the CSL website at <http://csl.cofc.edu> or call (843)953-5635.

Walk-in Science Tutoring Lab - The Center for Student Learning (CSL) now has a walk-in science tutoring lab. Students can use the walk-in lab during the scheduled times of operation which can be found at <http://csl.cofc.edu/labs/>. Tutoring is available to all Biol 101/102/111/112/211 students, should they need additional help with specific course concepts.

Course Schedule

Date	Lecture / Lab	Topic	Assignment Due
1/8	1 / No Lab	Course Intro & Recap of 101	
1/11	2 / Darwinian Snail	Ch.16 – Evidence of Evolution	
1/13	3 / Darwinian Snail	Ch.16 – Evidence of Evolution	Exercise #1
1/15	4 / Darwinian Snail	Ch.16-17 – Evidence & Processes of Evolution	
1/18	5 / No Lab	Ch.17 – Processes of Evolution	
1/20	6 / No Lab	Ch.17 – Processes of Evolution	Exercise #2
1/22	7 / No Lab	Ch.17 – Processes of Evolution	
1/25	8 / Adaptations	Synthesis	Exam 1
1/27	9 / Adaptations	Exam 1	Brainstorm #1
1/29	10 / Adaptations	Ch.18-19 – Early Evolution, Prokaryotes, & Viruses	
2/1	11 / Water Transport in Plants	Ch.20 – Protists	
2/3	12 / Water Transport in Plants	Ch.21 – Plant Diversity	Exercise #3
2/5	13 / Water Transport in Plants	Ch.22 - Fungi	
2/8	14 / Animal Circulatory Systems	Ch.23 – Invertebrates	
2/10	15 / Animal Circulatory Systems	Ch.23 – Invertebrates	Brainstorm #2
2/12	16 / Animal Circulatory Systems	Ch.24 – Chordates	
2/15	17 / Humans & Sustainability	Ch.24 – Chordates	
2/17	18 / Humans & Sustainability	Ch.25-27 – Plant Nutrition, Transport, Reproduction, & Development	Exercise #4
2/19	19 / Humans & Sustainability	Synthesis / Plagiarism 101	
2/22	20 / Salt Marsh Ecosystem	Exam 2	Exam 2
2/24	21 / Salt Marsh Ecosystem	Ch.28 – Animal Tissues & Organ Systems	Brainstorm #3
2/26	22 / Salt Marsh Ecosystem	Ch.29 – Neural Control	
2/29	23 / Predator-Prey	Ch.29-30 – Neural Control & Sensory Perception	
3/2	24 / Predator-Prey	Ch.30 – Sensory Perception	Exercise #5
3/4	25 / Predator-Prey	Ch.31 – Endocrine Control	

3/6	--	<i>Spring Break</i>	
3/14	26 / Student Projects: Research Proposal	Ch.32-33 – Structural Support, Movement, & Circulation	Brainstorm #4
3/16	27 / Student Projects: Research Proposal	Ch.33 & 35 – Circulation & Respiration	Exercise #6
3/18	28 / Student Projects: Research Proposal	Ch.34 - Immunity	
3/21	29 / Student Projects: Data Collection	Ch.36 – Digestion & Human Nutrition	
3/23	30 / Student Projects: Data Collection	Ch.37 – Maintaining the Internal Environment	Presentation Draft 1
3/25	31 / Student Projects: Data Collection	Ch.38 – Reproduction & Development	
3/28	32 / Student Projects: Data Collection	Exam 3	Exam 3
3/30	33 / Student Projects: Data Collection	Ch.39 – Individual Ecology	
4/1	34 / Student Projects: Data Collection	Ch.39 – Individual Ecology	
4/4	35 / Student Projects: Data Analysis & Poster	Ch.40 – Population Ecology	
4/6	36 / Student Projects: Data Analysis & Poster	Ch.40 – Population Ecology	Presentation Draft 2
4/8	37 / Student Projects: Data Analysis & Poster	Ch.41 – Community Ecology	
4/11	38 / Student Projects: Poster Symposium	Ch.42 – Ecosystem Ecology	
4/13	39 / Student Projects: Poster Symposium	Ch.43 – Biosphere	
4/15	40 / Student Projects: Poster Symposium	Ch.44 – Human Effects	
4/18	41 / No Lab	Mini-Presentations	Mini-Presentations Due
4/20	42 / No Lab	Mini-Presentations	
4/21	43 / No Lab	Mini-Presentations	
4/27		Final Exam (12-3pm)	Final Exam