

BSC 103 (H001): Biology and Society, Summer 2009

**Mondays, Wednesdays, and Fridays 11:20 A.M. – 12:50 P.M.
Walker Science Building 137 (Big Reuben Auditorium)**

Instructor

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Office Hours

(a) Thursdays, 1:30–2:30 P.M.
(b) By appointment

Course Description

Lecture. 3 hrs. Concepts and methods of biological science and their relationship to human affairs. Satisfies general education curriculum requirements for laboratory sciences (Category IV). Cannot be taken in combination with BSC 110 or 111 to meet the general education curriculum requirement. This course is **not** counted toward a major in Biological Sciences. This course is taken concurrently with BSC 103/L, the biological science laboratory. No prerequisites.

Course Overview

Biology and Society is an introductory course whose lectures are designed to acquaint the student with the scientific method and the basic concepts of biology. Because it is a course designed for non-majors, special emphasis is placed on concepts essential for understanding important issues such as evolution, disease, biotechnology, and environmental biology.

Course Objectives

Students will develop and demonstrate:

- Knowledge of the methods, basic data, ideas, and scope of the natural sciences,
- Understanding of contemporary issues and concerns in biology,
- Suitable reading, writing, and other communication skills,
- Fundamental mathematical and computer skills (exercised in lab), and
- Capacity for intellectual independence and analytical thought.

Required Text and Supplies

Audesirk, T., G. Audesirk, & B. Byers. 2009. *Life on Earth*. 5th ed. San Francisco: Pearson Prentice Hall. (See class schedule for reading assignments.)

Class Procedures and Requirements

Attendance of the lecture is expected. The indicated chapter(s) in the book should be read *before* class, which will prepare you for the material presented in lecture. The exams will principally include material covered in lecture, but some questions may come from the relevant reading assignments. Lecture will include some material not present in the textbook. Your writing skills will be exercised in preparing the essays, and your speaking skills will be exercised in one of the labs.

Professionalism

Disrespect of the professor and/or students will not be tolerated. Be prompt to class, and if you must leave early, please sit near the rear of the classroom. Questions are encouraged; please raise your hand to be recognized. The use of cellular phones, pagers, and other such electronic devices is prohibited. Computers may be used for note-taking, but disruptive behavior (surfing the web, typing loudly, etc.) will not be tolerated.

Evaluation Criteria

Exam 1	20%	(100 points)
Exam 2	20%	(100 points)
Final Exam	20%	(100 points)
Essays (6)	30%	(150 points)
Major Essay	10%	(50 points)
Extra-Credit	5%	(25 points)

Grading Scale

90–100%	A	(450–500 points)
80–89%	B	(400–449 points)
70–79%	C	(350–399 points)
60–69%	D	(300–349 points)
0–59%	F	(0–299 points)

Make-Up Exams and Late Assignments

Make-up exams are **only** given if written corroboration of a disabling condition or situation is provided (doctor's note, parental note [with phone number] about funeral, police report). Contact professor immediately about re-scheduling. *Re-scheduling after one week is not possible, and a score of zero will be recorded.* The grade for assignments will be deducted 10% for *each 24-hour period* that the assignment is late.

Academic Honesty (directly from the *Undergraduate Bulletin*)

"When cheating is discovered, the faculty member may give the student an F on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the Dean of Students. In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct and may be grounds for probation, suspension, and/or expulsion. Students on disciplinary suspension may not enroll in any courses offered by the University of Southern Mississippi."

ADA Policy

If a student has a disability that qualifies under the Americans with Disabilities Act and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by the ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies. Mailing address: 118 College Drive #8586, Hattiesburg, MS 39406-0001; Telephone: 601-266-5024; TTY: 601-266-6837; Fax: 601-266-6035.

Class Schedule*

Date	Topic	Reading Assignment (chapter)
June 1	Logistics and Introduction What is science? What is biology? What is life?	NOTE: Labs begin on June 2
3	More science, biology, and life	1
5	More science, biology, and life	
	Last day to register for class	
8	Diversity and Systematics	16 (279–284), 14 (243–245)
10	Archaea, Bacteria, and “Protists”	16 (284–294)
12	Fungi and Lichens	16 (297–301)
15	Plants, part 1	16 (294–297), 18 (336–346)
17	Plants, part 2 Video: Pollination and Dispersal	
19	EXAM 1	
22	Animals, part 1	16 (301–316)
24	Animals, part 2	
26	Populations and Communities	27, 28
	Last day to drop course without academic penalty	
29	Ecosystems	29
July 1	Climate and Biomes	30
3	National Holiday – Independence Day no lecture	
6	Evolution, part 1	13
8	Evolution, part 2	14
10	Evolution, part 3 Video: Dogs and More Dogs	15
13	EXAM 2	
15	Cell Division	8
17	Inheritance	9
20	DNA and Gene Expression	10, 11

22	Biotechnology	12
24	Disease and Response	22 Final Essays Due
27	Video: Cracking the Code of Life, part 1	
29	Video: Cracking the Code of Life, part 2	
Friday, July 31 11:20 A.M. – 12:50 P.M.	Final Exam Comprehensive	

*Schedule may be revised if necessary. Students will be notified if this is the case.

Essay Guidelines

As part of the General Education Curriculum (GEC), you are required to write 2500 words in this course. As you probably recognize, communication skills are important in every aspect of life and study, and learning how to express your ideas about what you read in biology is just as important as expressing your ideas in an English or literature course.

For this course, you will be given six articles on current issues in biology to read and analyze. You will prepare a two-page report for each article that will consist of (1) a summary of the key points of the article and (2) your impressions of the science presented in the article. For your impressions, you may relate what you read to something you learned in class or comment on how the studies utilized the scientific method. Your essay should be written in 12-point font (preferably Times New Roman, Arial, or Calibri) and double-spaced. In the upper left corner of the first page, write your name, the course name, and the date. For example,

Zoe B. Biologski

BSC 103: Biology & Society

14 June 2009

Essay on "Title of Article"

Summary and Impressions. Two pages, double-spaced, 12-point font.

When your essay is due, you will trade with another student, and they will "grade" your essay, making corrections and suggestions. He will have read the same article and will be able to assess your ability to summarize effectively. He will write his name on your paper (as the grader) and will return the article to you during the next class period, you will have an opportunity to correct it, and then you will return BOTH the original (student-graded) and corrected copy to me. Your grade will be based on BOTH your paper and your grading of another student's paper. **You are responsible for getting your paper in on time. Therefore, if necessary, be sure to collect contact information for the student with whom you trade, in case he misses class.**

The grading criteria for you AND me will be accuracy of content (50%), clarity of presentation and proper grammar (30%), and following directions (20%). For each of these three areas, you will grade the student as excellent (A), good (B-C), or poor (D-F). Your total grade will be calculated as 80% on your essay and 20% on the quality of your grading the other person's essay.

Finally, you will prepare one essay that summarizes an article that demonstrates how science (or the scientific method) relates to your field of study (e.g., music, economics, French, etc.). You may find these articles anywhere (e.g., professional journals, popular literature). If you need help finding appropriate articles, the professor is willing to help. This essay will not be graded by other students and is due on Friday, July 24.