

Brazosport College

General Biology II (BIOL 1307)

Instructor: Kevin Spring, Ph.D.
email: Kevin.Spring@brazosport.edu

Office: Sadler 225C

Main Phone: 979-230-7311

Alt. phone Office Professional – Debbie Duncan – Office Sadler Building 225K, phone 230-3225

COURSE DESCRIPTION

General Biology II is a survey of the fundamental principles of living organisms including structural adaptations and how they relate to function. Evolutionary adaptation will be addressed with an emphasis on genetics, population dynamics, and ecology.

PREREQUISITES

BIOL 1306 Introduction to Biology I, BIOL 1106 Introduction to Biology Laboratory I

LAB REQUIREMENTS

Concurrent enrollment or previous credit in BIOL 1107

COURSE OBJECTIVES

To be scientifically literate in biology, students need to understand five overarching biological concepts: **evolution**; **structure and function**; **pathways and transformations of energy and matter**; **information flow, exchange, and storage**; and **biological systems**. Two key skills also must be acquired that has a lasting impact outside the classroom, **scientific thinking** and **microbiology laboratory skills**.

STUDENT LEARNING OUTCOMES

A student learning outcome is “a specific statement that describes the knowledge, skills/abilities, or attitudes that students are expected to learn upon successful completion of a course or activity” (Wood, WB. 2009. Annu Rev. Cell Dev. Biol 25: 93-112).

- Students are required to read a college-level textbook, scientific articles and additional exercise handouts. Tests will include questions based on information in the texts, lectures and handouts.
- Students will develop writing skills through their responses to essay questions on examinations, research paper, ethics problems and other writing assignments.
- Students are required to give an in class presentation on a topic in biology of their choice using appropriate visual tools.
- Students will examine health issues related to ecology, environment, and the effects of human consumption and pollution on the world around us
- Students will discuss new methods used to analyze global data.
- Students will focus on plant and animal diversity. They will also look at how diversity is affected by environmental changes, such as effects of pollution, the greenhouse effect, loss of habitat

and ozone depletion. Students will look at how these changes affect the earth's temperature, cancer rates and species diversity.

- Students will learn and implement the scientific method to understand how scientists effectively gather and analyze data. This also includes the implications of a hypothesis versus a theory. Students also address the logical reasoning behind theories, including the theory of evolution

TEXTBOOK OR COURSE MATERIAL INFORMATION

Required Material: OpenStax Biology

(<https://openstaxcollege.org/textbooks/biology/get>)

The required course material is a free open source material provided by Rice University. It is possible to download a PDF or view on in a web browser. A copy will be provided on D2L.

A student of this institution is not under any obligation to purchase a textbook from the college bookstore. The same textbook is/may also be available from an independent retailer, including an online retailer

STUDENTS WITH DISABILITIES

Brazosport College is committed to providing equal education opportunities to every student.

Brazosport College offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist students with special needs. Please contact the Special Populations Counselor, 979.230.3236, for further information.

STUDENT CODE OF CONDUCT & ACADEMIC INTEGRITY

CODE OF CONDUCT

Enrollment in this course and Brazosport College is a privilege and not a right. Students who enter the classroom agree to abide by Brazosport College's Student Code of Conduct, which can be found in the Student Guide and Calendar.

Disruption of the class will not be allowed. It is expected that students will be focused on the course objects and topics and not outside events or topics that are not related to the course. Students are expected to be respectful to classmates, their instructor, their supplemental instructor, and themselves. Students that fail to do this will be asked to leave the class meeting and may be withdrawn from the course.

Students are expected to attend all course meetings and failure to do so may result in a reduction in the course achievement score or failure in the course. See section Course Requirements & Achievement Score in this syllabus for more information.

ACADEMIC INTEGRITY

Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. **The principle of**

academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, cheating, plagiarism, and collusion shall be treated appropriately.

Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication, and will, at a minimum, result in the grade of an F in this course. Sanctions may be imposed beyond your grade in this course by the Dean of Student Services.

Scholastic dishonesty shall include, but not be limited to, cheating, plagiarism and collusion.

PLAGIARISM: Plagiarism is taking the work created by another person or entity and submitting it as your own for academic credit or other personal gain.

SELF-PLAGARISM: Self-Plagiarism is presenting your own previously presented or submitted work as if it were new.

CHEATING: Cheating is to use information in a variety of dishonest manners in order to obtain personal benefit to that particular student for academic or other personal gain.

COLLUSION: Collusion is the act of committing academic fraud with one or more persons. Collusion shall be defined as the unauthorized collaboration with another person in preparing assignments for fulfillment of course requirements and/or knowingly allowing students to commit academic integrity.

To avoid academic dishonesty violations students should:

1. Before beginning any assignment, check with the faculty member to make sure you fully understand the assignment and how he/she wants you to cite sources according to the policies as stated in the course syllabus. Remember, not citing work properly and then claiming not to know what plagiarism means is not a valid excuse.
2. When turning in an assignment, students must always submit a list of sources they used to complete the assignment. This is called “citing” sources. By citing sources, students are giving written acknowledgement that some of the work in their assignment is not an original idea and are giving due credit to the person who initially created the original idea or concept.
3. The most obvious time to properly cite a source is when using a direct quote from a book or website. The student should then put this passage in quotation marks in their assignment and give proper credit.
4. It is also important to cite sources even when they are not directly quoting the work or ideas of others. If a student paraphrases or summarizes a passage, which by definition is not a direct quotation, it still must be cited.
5. Students should always do their own work with no unauthorized assistance from others.

6. Unless otherwise stated, all quizzes, tests, and exams are to be done individually. Students may not use class notes, keep their books open, or use any unauthorized information for their own, or a fellow classmate's gain.
7. Without permission from faculty, never give (or receive) assistance to another student regarding any assignments (tests, quizzes, and/or exams included).
8. Students must not, unless they have the permission of all professors involved, turn in the same assignment for credit for more than one class.
9. It is considered cheating for a student to have another person take a test, quiz, or exam in their absence. Students must always take their own tests and submit their own work.
10. It is considered cheating to use a current or former student's exams, quizzes, or assignments to study for or complete current exams, quizzes, or assignments.
11. Academic dishonesty also includes the failure of a student to inform faculty, staff, or administration personnel in the event those are aware of other student(s) behaving dishonestly.

COURSE STRUCTURE AND ACHIEVEMENT SCORE

Every class meeting will involve starting with a few practice questions that would be found on the Unit Evaluations (Exams). Then there will be a short lecture and/or demonstration followed by learning activities. These activities may include discussing topics or problems in small groups or with entire class and submitting the content of your discussion.

PARTICIPATION & JOURNAL (250 points)

Attendance and Participation

This course requires the participation of all students to work. Learning is the responsibility of students. It is the instructor's job to give you the tools and atmosphere to complete that responsibility. To learn students must talk about what they are learning, write about it, relate it to past experiences, and apply it to their daily lives. Thus it is important for students to attend and participate in each and every meeting.

Each unexcused absence will result in the reduction of the score in this section by 50 points. If a student has four (4) total absences, then they will receive a final course grade mark of F and thus receive no credit points. Please see the next section, Attendance and Withdrawal Policies, for more information on excused versus unexcused absences.

The participation portion of the score will come from actual attendance to the class, the activity a student conducts in the class, and any assignments that are required from class participation.

Journal

The purpose of this task is to keep students and the instructor aware of their study habits, the amount of work they do, and any problems they are facing in the class. Every week students are required to submit an entry to their online journal found on D2L. This journal will consist of writing about what the student read related to the course. These readings could be the assigned content or something they saw during their free time. How, where, and with who they studied should also be recorded. Students can write about what they did not understand or activities they did for all the other aspects of this course. This journal entry can be a few sentences long to multiple pages. The journal entries will be scored for completion but advice may be given on spelling, grammar, and other problems found in the writing style.

WEEKLY EVALUATIONS (Quizzes) (250 points)

Each week, students will be evaluated on their comprehension of the previous week's content and the upcoming week's reading assignments. All evaluations will be completed online through D2L and have a due date. Students can attempt the evaluation as many times as possible and will receive the highest score achieved. Your academic integrity applies with these evaluations. These evaluations are closed book, closed notes, and cannot be discussed with other students. These evaluations will consist of multiple choice and true/false problems.

UNIT & FINAL EVALUATIONS (Exams) (250 points)

There are a total of 4 units in this course but 5 exams will be given to evaluate student learning. Also, a comprehensive final evaluation covering all 4 units will be given. These evaluations will be conducted on campus either in the testing center or in the classroom. These evaluations will consist of problems similar to those found on the weekly evaluations and also problems that require a short answer and essay to answer.

RESEARCH PROJECT (250 points)

Report

The research project includes two parts, written report and peer evaluation. Each student will choose a paper in biology that the instructor will provide. The student will write a summary report on this topic, using citations from the primary literature to discuss the issue.

ACHIEVEMENT SCORE SCALE

SCORE	LETTER GRADE
≥ 900	A
≥ 800	B
≥ 700	C
≥ 600	D
≤ 599	F
Note: ' \geq ' means 'greater than or equal to' ' \leq ' means 'less than or equal to'	

ATTENDANCE AND WITHDRAWAL POLICIES

Attendance is mandatory for BIOL 2306. Four (4) absences, whether excused or unexcused will result in no credit be awarded in this course, i.e. a grade of F will be given. It is better to drop the course if you miss that many meetings.

Each unexcused absence will result in the deduction of 10 points from the participation section of your score.

Excused absences can only be the following:

- Illness that is communicable or leads to hospitalization of you or someone that you are their primary caregiver.
- Death of a close relative or friend.

For absences to be excused you need to contact me by email or phone with a note from a health care provider explaining why you cannot attend the class meeting.

Examples of things not considered excused:

- Transportation problems
- Change in work schedule

MAKE-UP POLICY & EXTRA CREDIT

All quizzes, exams, and homework assignments must be completed by the scheduled time. No make-up work will be allowed. Also, no extra credit is awarded. We have enough assignments and a variety of formats that you should be able to achieve the score if you work for it.

OTHER STUDENT SERVICES INFORMATION

Information about the Library is available at <http://www.brazosport.edu/library> or by calling 979.230.3310.

For assistance with online courses, an open computer lab, online and make-up testing, audio/visual services, and study skills, visit Learning Services next to the Library, call 979.230.3253, or visit <http://www.brazosport.edu/learningservices>.

For drop-in math tutoring, the writing center, supplemental instruction and other tutoring including e-tutoring, visit the Student Success Center, call 979.230.3527, or visit <http://www.brazosport.edu/studentsuccesscenter>.

The Student Services provides assistance in the following:

Counseling and Advising	979.230.3040
Financial Aid	979.230.3294
Student Life	979.230.3355

To reach the Information Technology Department for computer, email, or other technical assistance call the Helpdesk at 979.230.3266.

Student Guide and Calendar can be found at:

<http://www.brazosport.edu/StudentServices/Documents/2015-2016%20Student%20Guide%20and%20Calendar.pdf>

SCHEDULE

BIOL 1307 –Tentative Schedule Spring 2016

This is a guide and is subject to change at the discretion of the instructor. You will be informed of any changes

	Date	Topic	Class Assignment / Reading
1	Mon, Jan 11	Course info Intro to Biology Biology I Review	
2	Wed, Jan 13	Evolution and the Origin of Life	Read Ch 18
3	Mon, Jan 18	NO CLASS – MLK Day	
4	Wed, Jan 20	Evolution of Populations	Journal Quiz 1 Read Ch. 19
5	Mon, Jan 25	Phylogenies and the History of Life	Journal Quiz 2 Read Ch. 20
6	Wed, Jan 27	Phylogenies and Evolution continued	
7	Mon, Feb 1	EXAM 1	Journal Quiz 3
8	Wed, Feb 3	Viruses	Read Ch 21
9	Mon, Feb 8	Prokaryotes	Journal Quiz 4 Read Ch. 22
10	Wed, Feb 10	Fungi	Read Ch. 24
11	Mon, Feb 15	EXAM 2	Journal Quiz 5
12	Wed, Feb 17	Seedless Plants	Read Ch. 25
13	Mon, Feb 22	Seed Plants	Journal Quiz 6 Read Ch. 26
14	Wed, Feb 24	Invertebrates	Read Ch. 28
15	Mon, Feb 28	Vertebrates	Journal Quiz 7 Read Ch. 29

16	Wed, Mar 2	EXAM 3	
	Mon, Mar 7	SPRING BREAK – NO CLASS	
	Wed, Mar 9		
17	Mon, Mar 14	Plant Form and Physiology	Journal Quiz 8 Read Ch. 30
18	Wed, Mar 16	Soil and Plant Nutrition	Read Ch. 31
19	Mon, Mar 21	Plant Reproduction	Journal Quiz 9 Read Ch. 32
20	Wed, Mar 23	EXAM 4	
21	Mon, Mar 28 *Last day to drop	Animal Body: Basic Form and Function	Journal Quiz 10 Read Ch. 33
22	Wed, Mar 30	Digestive System	Read Ch. 34
23	Mon, Apr 4	Nervous System	Journal Quiz 11 Read Ch. 35 Paper Due
24	Wed, Apr 6	Musculoskeletal System	Read Ch. 38
25	Mon, Apr 11	Circulatory System	Journal Quiz 12 Read Ch. 40
26	Wed, Apr 13	Ecology and the Biosphere	Read. Ch 44
27	Mon, Apr 18	Ecosystems	Journal Quiz 12 Read Ch. 46
28	Mon, Apr 20	Conservation Biology and Biodiversity	Read Ch. 47 Peer-Evaluations Due
29	Wed, Apr 25	EXAM 5	
30	Mon, May 2 (1:00 – 3:00)	FINAL EXAM	
	May 4 *Grades posted		