Instructor: Andrea Bailey, Ph.D.
Office: X2024B
Office Hours: by appointment
Email: abailey@dcccd.edu (preferred contact)
Math/Science Division phone: (972) 860-4750
Office Phone: (972) 860-4753
Class meeting time: 7:30-9:30
Laboratory meeting time: 9:40-11:40 p.m.

Course Description. Biology 1406, Biology for Majors I, is the first semester of a two-semester sequence designed for prospective Biology majors and for those students requiring a laboratory science for science majors. Students are expected to possess a reading, writing and speaking knowledge of the English language appropriate to college level work in the sciences, and to possess a computational ability through simple quadratic equations and exponents. This course presents the following topics: Introduction to Chemistry, Cellular Chemistry, Cell Morphology and Physiology, Photosynthesis, Cell Respiration, DNA, RNA, Protein synthesis, Prokaryotic and Eukaryotic Gene Regulation, Classical Genetics, Evolution. Laboratory experiments and exercises focus on principles and techniques of Cell and Molecular Biology. The Biology department and the instructor reserve the right to modify any and all parts of the course at any time during the semester to facilitate the learning process.

Instructors
The preferred method of communication is by e-mail or voice mail to my office number. You may leave a message for your instructor with the Science/Mathematics division office, K224, by telephone (972-869-4750) or in person between the hours of 8:00 am and 8:00 pm, Monday through Thursday, and 8:30am to 4:30pm on Friday.

Objectives
Students are expected to expand their awareness of their relation to the natural world and the role of biology in social, economic, political, and ethical affairs. All majors in the various fields of science are expected to understand the methods by which scientific knowledge is obtained. Specific course objectives will be provided in class.

Student Learning Outcomes
1. To understand and apply method and appropriate technology to the study of the natural sciences.
2. To recognize scientific and quantitative methods and the differences between these approaches and the other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
3. To identify and recognize the differences among competing scientific theories.
4. To demonstrate knowledge of the major issues and problems facing modern science, including issues that tough upon ethics, values, and public policies.
5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to modern culture.

Texts

Activities
1. Lecture examinations will be given in the campus testing center located in the S-building.
2. Each student will complete a laboratory topic daily and be tested intermittently during the semester by laboratory examinations and laboratory quizzes during the scheduled laboratory session.
3. Quizzes for lecture are on line.

**Examinations and Grades**

Your final grade will be determined on the basis of points accumulated during the semester on four types of evaluation instruments: lecture examinations, reading quizzes, laboratory practical examinations and laboratory quizzes. Lecture examinations will be comprised of **multiple choice** questions and an essay question. The exams will be given in the testing center (S-bldg., Student Services Center). Laboratory examinations and quizzes, also comprised of multiple choice questions, will be given during the laboratory period. A passing grade on the cumulative final is required to pass the course.

4 lecture examinations (one drop)@ 100 points each...........300 pts.
One Comprehensive Final examination @ 100 pts.............100
Two laboratory examinations @ 100 pts each....................200
Ten laboratory quizzes @ 10 pts each.........................100
10 on-line quizzes (20-drop 10) 10 points each.............100

Total Possible Points.............................................800 pts
A = 90 - 100%
B = 80 - 89
C = 70 - 79
D = 60 - 69
F = 0 - 59

**Make-up Examinations**

It is up to the discretion of the instructor to permit a student to make up any type of course work missed during the semester. In most cases, makeup exams will not be given. All situations of this kind are handled and resolved individually between student and instructor.

**Biology Resource Lab**

The „Resource Lab” is a tutoring and laboratory review component of the course. All laboratory sessions will be staffed to help enrolled biology students with their laboratory, lecture and text material. This is a place where you may receive help with reading and homework assignments(Room: X – 2030). Individual tutoring may be scheduled with the Student Services tutoring office in the S-building.

**Attendance**

Students are expected to attend, on time, all classes in which they are enrolled. **Attendance may be taken during each class period and excessive absence will be treated with an administrative drop from the course.** More than 2 missed labs can cause you to be dropped from the course. You have the responsibility to attend class and to consult with the instructor when an absence occurs.

**Holidays.** Students desiring to observe a religious holy day or days which will result in absence from class, must notify their instructor in writing for each class, no later than the 5th calendar day after the first class day of the semester in which the absence will occur. The student is required to complete any assignments that may have been missed, within a reasonable time.

**Lateral transfers.** No lateral transfers will be granted without written documentation of need. Students who wish to complete a lateral transfer to another biology course must consult the instructors involved. Transfers can only take place during the second and third week of class. Circumstances arising later in the semester, that require a section transfer, may be rectified by the instructor individually.

**Withdrawal.** If necessary, it is the responsibility of the student to withdraw from the course. This can be accomplished in the registrar’s office before the last withdrawal date.

**Academic Dishonesty**

Academic dishonesty is the unauthorized giving or receiving of assistance on any graded assignment. All students are encouraged to examine the *Brookhaven College catalog* section on Academic Dishonesty in the Code of
Additional Information

1. Please purchase eight long Scantron forms and twelve short Scantron forms.
2. Please notify the instructor if you have been absent.
3. The department reserves the right to change the syllabus and schedule at any time.

1. **READING:** Reading at the college level means the ability to analyze and interpret a variety of printed materials—books, articles and documents. A core curriculum should offer students the opportunity to master both general methods of analyzing printed materials and specific methods for analyzing the subject matter of individual disciplines.

2. **WRITING:** Competency in writing is the ability to produce clear, correct and coherent prose adapted to purpose, occasion, and audience. Although correct grammar, spelling and punctuation are each a sine qua non in any composition, they do not automatically ensure that the composition itself makes sense or that the writer has much of anything to say. Students need to be familiar with the writing process including how to discover a topic and how to develop and organize it, how to phrase it effectively for their audience. These abilities can be acquired only through practice and reflection.

3. **SPEAKING:** Competence in speaking is the ability to communicate orally in clear, coherent and persuasive language appropriate to purpose, occasion and audience. Developing this competency includes acquiring poise and developing control of the language through experience in making presentations to small groups, to large groups and through the media.

4. **LISTENING:** Listening at the college level means the ability to analyze and interpret various forms of spoken communication.

5. **CRITICAL THINKING:** Critical thinking embraces methods of applying both qualitative and quantitative skills analytically and creatively to subject matter in order to evaluate arguments and to construct alternative strategies. Problem solving is one of the applications of critical thinking, used to address an identified task.

6. **COMPUTER LITERACY:** Computer Literacy at the college level means the ability to use computer-based technology in communicating, solving problems and acquiring information. Core-educated students should have an understanding of the limits, problems and possibilities associated with the use of technology and should have the tools necessary to evaluate and learn new technologies as they become available.

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<td>Chapter 4</td>
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