

## **Course Information Sheet Introductory Biology I (Biology 1408) Fall 2009**

Instructor: Dr. Ronald L. Johnston  
Office: Science Building, Room 233  
Office Hours: MTWR 10:30 – 11:30 am  
Phone: (979) 209-7425, Extension 2  
E-mail: [rjohnston@blinn.edu](mailto:rjohnston@blinn.edu)

### **Class Schedule**

MW (CPC) 12:00 – 5:30 pm  
TR (CPC) 12:00 – 2:40 pm

### **Course Description:**

An introductory biology course for non-majors. Emphasis will be placed on the nature of biology and scientific problem solving, unity and diversity of life, nature of genetic information, change in organisms, ecological relationships, and current issues in biology. Three classroom hours and three laboratory hours per week. Credit: 4 semester credit hours.

**Core Curriculum Course:** This is a course in the 42-hour Core Curriculum of Blinn College. As such, students will develop proficiency in the appropriate intellectual competencies, exemplary educational objectives and general perspectives. Specific information regarding the core may be found at [www.blinn.edu/corecurriculum.htm](http://www.blinn.edu/corecurriculum.htm)

### **Course Objectives and Student Learning Outcomes:**

The following outcomes and objectives include student mastery of the areas listed below.

#### **Student Learning Outcomes:**

1. Describe the scientific method of problem solving.
2. Summarize competing hypotheses for the origin of life.
3. Characterize the major molecules of life and state their location and function within the cell.
4. List the basic structure and function of cellular organelles.
5. Describe the ways in which biological membranes facilitate the passage of materials in and out of the cell.
6. Summarize the reactions of photosynthesis and cellular respiration and explain how they are completed processes.
7. Compare and contrast the processes of cell division associated with growth and reproduction.

8. Demonstrate an understanding of inheritance by solving basic genetic problems.
9. Describe the mechanism of evolutionary change.
10. Summarize the process of protein synthesis.
11. Name and identify the kingdoms of life based on major physical and anatomical differences.
12. Diagram the interaction of both biotic and abiotic components of an ecosystem.
13. Describe the impact of human population growth on the environment.

**Laboratory objectives:**

1. Demonstrate familiarity with the fundamentals of lab safety.
2. Display an understanding of problem solving in science.
3. Exhibit an understanding of data analysis.
4. Use laboratory equipment in a correct manner.
5. Relate biological concepts to laboratory activities.

**Expanded Course Description:**

- A. Major Areas to be Covered in Lecture are:
  - a. Scientific Thinking
  - b. Chemistry
  - c. Cells
  - d. Energy
  - e. DNA, Gene Expression, and Biotechnology
  - f. Chromosomes and Cell Division
  - g. Mendelian Inheritance
  - h. Evolution and Natural Selection
  - i. The Origin and Diversification of Life on Earth
  - j. Animal Diversification
  - k. Plant and Fungal Diversification
  - l. Evolution and Diversity Among the Microbes
  - m. Population Ecology
  - n. Ecosystems and Communities
  - o. Conservation and Biodiversity
  
- B. Major Areas to be Covered in Laboratory are:
  - a. Orientation and Lab Safety
  - b. Scientific Method
  - c. Metric Measurements and Microscopy
  - d. Cell Structure and Function
  - e. Enzymes
  - f. Cellular Respiration and Fermentation
  - g. Photosynthesis

- h. Mitosis and Meiosis
- i. Patterns of Inheritance
- j. DNA Biology and Technology
- k. Genetic Counseling
- l. Evidences for Evolution
- m. Microbiology
- n. Seedless Plants and Seed Plants
- o. Plant Anatomy and Growth
- p. Animal Diversity
- q. Ecosystems and Ecology

### ***Class Policies:***

**Attendance:** Blinn College believes that class attendance is essential for student success; students are expected to report promptly and regularly to all their classes. If a student has four unexcused absences from the course, an administrative withdrawal is processed and the student receives a failing grade. Blinn e-mail informs the student when two unexcused absences have occurred. There are two forms of excused absence officially recognized by Blinn College: (1) Observance of religious holy days and (2) Representing Blinn College at an official institutional function. Other excuses will be considered with documentation only.

Attending classes are part of your academic responsibility. If you miss a lab or lecture then you need to take it upon yourself to find out what you missed from another student in your class. I view class attendance as your individual decision and responsibility, however, **the institution's attendance policy is to withdraw students from classes in which they have accumulated 4 unexcused absences.**

The fact that you may be passing the course does not factor in to that decision. If you desire to drop this course, you must take it upon yourself to do the necessary paperwork with the Office of Admissions and Records. If you do not drop and quit attending class and taking tests, expect to find a final grade of "F" for the semester. Also please note that recent research has found that the best predictor of success in life after college (as in careers) is attendance in college classes.

**Dropping:** If a student chooses to drop the course, it is the student's responsibility to complete a drop order at the Office of Enrollment Services. Failure to do so could result in a grade of 'F' in the course. The last day to withdraw with a "W" is posted on the academic calendar found on the institution's website.. After that you will be

assigned either a "WP or "WF" depending on your academic status in the course.

**Eating and drinking are not allowed during class or laboratory work.** Not only is this a Blinn policy, but there are safety reasons for not eating, drinking, or smoking around a Biology laboratory.

**Dishonesty Statement:** Blinn College does not tolerate cheating, plagiarism or other acts of dishonesty. Definitions of those acts and procedures for dealing with them are found under "Scholastic Dishonesty" in the Blinn College Student Handbook, copies of which are available at the information desk in the administration building or on the Blinn College web site under "quick-links". Choose handbooks.

***Civility Statement:*** *Members of the Blinn College community, which includes faculty, staff and students, are expected to act honestly and responsibly in all aspects of campus life. Blinn College holds all members accountable for their actions and words. Therefore, all members should commit themselves to behave in a manner that recognizes personal respect and demonstrates concern for the personal dignity, rights, and freedoms of every member of the College community, including respect for College property and the physical and intellectual property of others. Civility applies to attire as well as language and behavior. Please dress appropriately for the academic classroom and laboratory.*

**ADA Policy:** Students needing special accommodation due to a disability must obtain authorization from the Disabilities Counseling Office in Room 157 of the Blinn Science Building. Their telephone number is 209-7251.

The above requirements and policies are discussed more fully in the Blinn College Student Handbook which, by reference, is incorporated into this information. Please obtain a copy and become familiar with its content.

### **Course Requirements and Criteria for Grading:**

**Lecture Exams:** There will be four lecture exams each worth 100 points. Lecture exams may consist of a combination of objective and subjective questions. Each exam will cover material from three or more chapters. Make-up exams will only be offered to those with

acceptable excused absences, no exceptions. Examples of excused absences include the following: (1) Illness with Physician Note, (2) Official Blinn College Activity, and (3) Family emergency with documentation. Students must contact me ASAP, either during the following class period or via e-mail to be able to schedule a make-up. If you know that you will need to miss an exam prior to the test date, contact me ASAP so that I may plan accordingly.

**Lab Practicals:** There will be three major laboratory practicals covering skills and knowledge of laboratory activities. The format for each lab practical will be explained in class. There will be no make-up lab practicals. Each is worth 100 points.

**Final Examination:** If you miss the final exam, contact me immediately. Otherwise, a final exam grade of zero will be recorded for any student who has missed the final exam and not contacted me by 5:00 pm on the day of the final examination. The final examination is comprehensive and is worth 200 points. All students must take the final examination.

**Make-up Policy:** Students not taking a major exam or lab practical must have reasons that are considered valid by the instructor. The format of a make-up exam does not necessarily follow that of the missed exam.

**Performance:** Each student is required to participate in lab exercises. Students are responsible for their work area, and should return any material or equipment to its proper location. Remember a clean lab area minimizes the health hazards that a student might be exposed to. A student not actively involved in lab exercises must have a valid documented justification for not participating in class exercises. Use your lab time efficiently, especially as skills learned will be evaluated during practicals and by daily evaluation.

**Preparation:** Attached is a course schedule containing a list of the topics and chapters to be covered. We may not get to some of the chapters in class but you will still be responsible for these chapters on an exam. The exact date of the examination will be listed in your tentative schedule unless a change of time is announced in class at least two class periods prior to the examination date. Because of the quantity of material to be covered, please do not fall behind in your readings. Please read the assigned chapter in the lab manual before coming to lab.

**Grading:** Grades will be based on total points earned by the student in the course. Each quiz/exam will be adjusted for that particular quiz/exam and returned to the student. We will go over the correct answers on each exam in class. You will not be allowed to keep your examinations or quizzes. They must be returned to the instructor after review.

### ***Tentative Point Distribution***

*Lecture Exams..... 400 points*

*Laboratory Practicals..... 300 points*

*Final Examination .....200 points*

*Total points = 900*

***Course Grade = Your Total Points/800 x 100 = Number %***

**Grading Scale:** 0-59 = F; 60-69 = D; 70-79 = C;

80-89 = B; 90-100 = A

**eCampus: This course will include some enhancements that can be found within the eCampus electronic classroom. Please make certain that you have access to a computer and know how to log onto my eCampus course listing as linked from the eCampus logo on the front page of the college web site. [www.blinn.edu](http://www.blinn.edu)**

### **Textbook and Other Materials:**

What is Life? A Guide To Biology, Jay Phelan. W.H. Freeman and Company (Textbook)

ISBN-13 = 978-1-4292-3902-8 or

ISBN-10 = 1-4292-3903-6

Essentials of Biology, Sylvia S. Mader. McGraw-Hill Companies

ISBN 978-0-07-723425-6

