COURSE SYLLABUS

Course Prefix and Number: BIOL1408
Course Title: General Biology I for non-majors

Hill College is committed to the principle of equal opportunity in education and employment. The college does not discriminate against individuals on the basis of age, race, color, religion, sex, national origin, disability, or veteran status in the administration of its educational programs, activities, or employment policies.

Catalog Description:

BIOL 1408
Fundamental principles of living organisms including physical and chemical properties of life, organization, and function. The scientific method and human organ systems are included.

Lecture Hours: 3  Lab Hours: 1  Semester Credit Hours: 4

Prerequisites: None.

Introduction and Purpose:

This course is meant to introduce students to the world of biology. It will teach them the basics of life and science, as well as discuss the human organ systems.

Instructional Materials:

Textbooks:

Supplies: Pencils, pens, paper, calculator, scantron form 882-E

Objectives/Student Learning Outcomes:

At the completion of this course, the student should be able to:

1. Demonstrate knowledge of core concepts of biology.
2. Demonstrate knowledge of the chemical basis for life.
3. Demonstrate knowledge of cellular components and functions, how cells harvest chemical energy, photosynthesis, cellular respiration and the cell cycle.
4. Identify the unifying concepts of animal structure and function.
5. Demonstrate knowledge of the anatomy and physiology of the human organ systems.

The students’ success in completing these objectives will be measured using a set of examinations and assignments described, in detail under the section of this syllabus headed “Method of Evaluation.”

Methods of Instruction:

This course will be taught using the traditional lecture with laboratory lessons being used to reinforce lecture topics.

Audio-visual materials and computer based technology will be used when appropriate. Students will be shown how to use a calculator where appropriate.

Methods of Evaluation:

55% of the course grade will come from lecture (including major exams and any assignments/quizzes)

25% of the course grade will come from laboratory.

20% of the course grade will come from a comprehensive final exam.

Letter grades for the course will be based on the following percentages:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90-100%</td>
<td>A</td>
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<tr>
<td>80-89%</td>
<td>B</td>
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<td>70-79%</td>
<td>C</td>
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<td>60-69%</td>
<td>D</td>
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<tr>
<td>Below 60%</td>
<td>F</td>
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Course Outline:

Class Policies:

Regular attendance at all class meetings is expected. Disruptions in class will not be tolerated. Lab safety regulations will be enforced.

Disabilities/ADA

In accordance with the requirements of the Americans with Disabilities Act (ADA) and the regulations published by the United States Department of Justice 28 C.F.R.
35.107(a), Hill College’s designated ADA coordinator, Debra Hargrove, Vice President, Human Resources and Organizational Development, shall be responsible for coordinating the College’s efforts to comply with and carry out its responsibilities under ADA. Students with disabilities requiring physical, classroom, or testing accommodations should contact Salley Schmid, Director of Counseling, at (254) 659-7651 or sschmid@hillcollege.edu

Topic Outline

1. Biology: Exploring Life
2. The Chemical Basis of Life
3. The Molecules of Cells
4. A Tour of the Cell
5. The Working Cell
7. Photosynthesis: Using Light to Make Food
8. The Cellular Basis of Reproduction and Inheritance
9. Unifying Concepts of Animal Structure and Function
10. Nutrition and Digestion
11. Gas Exchange
12. Circulation
13. The Immune System
14. Control of Body Temperature and Water Balance
15. Hormones and the Endocrine System
16. Reproduction and Embryonic Development
17. Nervous Systems
18. The senses
19. How Animals Move

Lab Topics:

1. Scientific Method; Metric Measurement and Microscopy
2. Cell Structure and Function; Enzymes
3. Mitosis and Meiosis
4. Respiration
5. Photosynthesis
6. Animal Organization
7. Digestive System
8. Cardiovascular system
9. Reproductive system; Development
10. Nervous system; Special senses
11. Musculoskeletal system
Bibliography:
