

General Biology 1407
CRN # 62168

Instructor: **Clifford Campbell, Prof. of Biology**
Office: **Faculty Office/A. Morales Bldg.**
Phone: **713-718-7086**
Office Hours: **7:00-8:00 AM**
Days: **Mon/Wed**
Times: **2:30- 5:30**
Rm: **Mon/201 Wed/304**

**Textbook: Biology, Eight Ed. Author, Neil Campbell
Benjamin/Cumming Publishing Company, Inc.**
Lab Manual: Biology a Laboratory Experience, Sixth Ed. W. Ooi, L.Brown Editors

Prerequisite: Biology 1406

Course Goal/Objectives: Topics include evolution, classification and ecological relationships, and organ systems of animals. By the end of this course, students should be able to understand the importance of structure and function of human cells, tissues, and organ systems.

NOTICE: Students who repeat a course three or more times may soon face significant tuition/fee increases at HCC and other Texas public colleges and universities. Please ask your instructor /counselor about opportunities for tutoring /other assistance prior to considering course withdrawal or if you are not receiving passing grades.”

This course fulfills the following core intellectual competencies:

- Reading
- Writing
- Speaking
- Listening
- Critical Thinking
- Computer Literacy

Reading ability Reading material at the college level means having the ability to analyze and interpret a variety of printed materials- books, articles, and documents.

Writing at the college level means having the ability to produce clear, correct, and coherent prose adapted to purpose, occasion, and audience. In addition to knowing correct grammar, spelling and punctuation, students should also become familiar with the writing process, including how to discover a topic, how to develop and organize it, and how to phrase it effectively for their audience. These abilities are acquired through practice and reflection. To show evidence of this, each student will write a document on the microbiological lab final report.

Speaking – Effective speaking is the ability to communicate orally in clear, coherent, and persuasive language appropriate to purpose, occasion, and audience. This will be assessed throughout the course and or the presentation.

Listening at the college level means the ability to analyze and interpret various forms of spoken communications. During the laboratory exercises, the teacher will be monitoring the listening skills of each student. Once instructions are given on laboratory procedures and questions answered relative to experimental procedures, students should be able to follow the assigned procedures.

Critical thinking embraces methods for applying both qualitative and quantitative skills and 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. Students will be given critical thinking problems on examinations. Each written examination will have at least one critical thinking problem.

Computer literacy at the college level means having 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. At least two references from the Internet will be required for the **lab unknown and scientific papers presented**.

Course Format: The class activities will consist of a series of lectures/discussion, overhead transparencies to highlight the discussion, student classrooms discussions, local, national, and international science news and journals discussions and science presentation projects.

Attendance: According to HCCS policy, students may be dropped if they have accrued four absences.

Disruption of Class: No behavior, which tends to interfere with learning or teaching, will be tolerated in the classroom.

Academic dishonesty: Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. College System officials against a student accused of scholastic dishonesty may initiate penalties and/or disciplinary proceedings.

Students with Disabilities: Persons needing accommodations due to a documented disability should contact the interim ADA counselor for the Southeast College as soon as possible. Counselor, **Ms. Getta Friis (713) 718-7216**.

Lecture Exams Four lecture exams will be given during the course. Review questions will be given prior to the exam. Students are requested to bring their own scantron sheets and be on time for the exam. **Essay questions and critical thinking questions will also be given.**

Make-up exams will be given ONLY if there is documented evidence (of reason) for missing the exam. Make-up exam will include essay type and short answer questions (**no multiple choice type questions**)

Lab exams – One lab exam will be conducted during the course of the semester. A handout review will be given before the exam. There are no make-up exams for the lab exam component.

Research Paper/Presentation: A research paper/presentation (on any **natural science** topic of interest **excluding the mathematics**) can be used to substitute **one lecture exam grade**. The lowest lecture exam grade will be dropped and the research paper/presentation grade will replace the low exam grade. Please see the class schedule for assigned presentations dates. Research papers/presentation will not be accepted after these dates. Research paper should be typed, double spaced, **5 or more pages** exclusive of the title page and reference **bibliography**. Presentation should be no longer than 10 minutes. Research paper/presentation will not replace the lab exam or the final exam. For those students **who do not present your paper in class**, the maximum you can make is **80%**

Lab Experiments – Students are allowed to work in groups for some of the experiments. Although work is done in groups, each student is responsible for knowing the material.

Final Exam – will include multiple choice questions, essays and or critical thinking problems. Review for the final exam (hand-out) will be given one week prior to the date of the final exam.

Grade Computation

90-100 = A

80-89 = B

70-79 = C

60-69 = D

Below 60 = F

Grading Scale

3 Lecture exams = 45%

1 Lab exam = 25%

Class Activities = 5%

Final Exam = 25%

Example (1)

First exam 60%

Second exam 95%

Third exam75%

$$230/3 = 76.6 \times 0.45 = 34.5$$

$$\text{Lab exam} = 80\% \times 0.25 = 20.0$$

$$\text{Class Activities} = 5\%$$

$$\text{Final Exam} = 88 \times 0.25 = 22$$

$$\text{Total Points} = 35 + 20 + 5 + 22 = 82 = \mathbf{B}$$

Example (2)

First exam60 (X)
 Second exam95
 Third exam75
 Presentation108
 $278/3 = 92.6(93) \times 0.45 = 41.8 = 42$
 Lab exam = $80\% \times 0.25 = 20$
 Class Activities = 5%
 Final Exam = $88\% \times 0.25 = 22$
Total Points = 42 + 20 + 5 + 22 = 89 = B (????)

Chapters Discussed

1. Chapter 27 – Prokaryotes and the Origins of Metabolic Diversity
2. Chapter 40 – An Introduction to Animal Structure and Function
3. Chapter 41 – Animal Nutrition
4. Chapter 42 – Circulation and Gas Exchange
5. Chapter 43 – The Body's Defenses
6. Chapter 44 – Controlling the Internal Environment
7. Chapter 45 – Chemical Signals in Animals
8. Chapter 46 – Animal Reproduction
9. Chapter 47 – Animal Development
10. Chapter 48 – Nervous Systems
11. Chapter 49 – Sensory and Motor Mechanisms

Exam I (27, 40, 41); Exam II (42, 43, 44); Exam III (45, 56); Final Exam (47, 48, 49)

Class Schedule

<u>Date</u>	<u>Day</u>	<u>Lecture/Lab/ Exams</u>
-------------	------------	---------------------------

1/19	Wed	Orientation
1/24	Mon	Video on Science
1/26	Wed	Chapter 27
1/31	Mon	Exp. 1 Review of the microscope
2/2	Wed	Chapter 40
2/7	Mon	Exp. 24 Review of prokaryotes
2/9	Wed	Chapter 41
2/14	Mon	Exp. 25 Bacterial staining
2/16	Wed	Exam I (27, 40, 41)
2/21	Mon	President's Day
2/23	Wed	Chapter 42
2/28	Mon	Exp. 28 AB0 Blood typing
3/2	Wed	Chapter 43
3/7	Mon	Exp.27 (Animal tissues)
3/9	Wed	Chapter 44
3/14	Mon	Spring Break
3/16	Wed	Spring Break
3/21	Mon	Review of body organs/ Pig dissection video
3/23	Wed	Exam II (42, 43, 44)
3/28	Mon	Pig Dissection (Selected Organs)
3/30	Wed	Chapter 45
4/4	Mon	Pig Dissection (Selected Organs)
4/6	Wed	Chapter 46
4/11	Mon	Lab Exam Review
4/13	Wed	Exam III (45 & 46)
4/18	Mon	Lab Exam
4/20	Wed	Chapter 47 & 48
4/25	Mon	Presentation
4/27	Wed	Chapter 49
5/2	Mon	Presentation (2)
5/4	Wed	Presentation (3)
5/11	Wed	Final Exam (47, 48, 49) @ 2pm