GROSSMONT COLLEGE

COURSE OUTLINE OF RECORD

Curriculum Committee Approval: 04/26/2022

GCCCD Governing Board Approval: 10/11/2022

BIOLOGY 099 – PREPARATION FOR ALLIED HEALTH CLASSES NON-CREDIT

1. Course Number Course Title Semester Units

BIO 099 Preparation for Allied Health Classes 0

Semester Hours

1 lecture hour: (16-18 hours); 32-36 outisde-of-class hours; 48-54 total hours

2. Prerequisites

None

Corequisite

None

Recommended Preparation

None

3. Catalog Description

The class is meant for students entering Allied Health classes (BIO 140, 141, 141L, 144, 145, and/or BIO 152) who desire to improve their study techniques for rigorous Allied Health Classes and to review key concepts from biology prerequisites. (BIO 120 and/or high school biology). The class will cover techniques for success in Allied Health exams, time management for rigorous 4-5 unit biology courses, reading skills for biology books, review of BIO 120/previous biology class material, usage of the microscope, and medical terminology as applied to biology classes. *This course is offered on a pass/no pass basis only.*

4. Course Objectives

The students will:

1. Describe and apply new test taking skills to sample biology tests.
2. Demonstrate the ability to read and use a Allied Health textbook.
3. Demonstrate an understanding of key biology concepts including, but not limited to,
4. Evolution.
5. Mitosis and meiosis.
6. Basic chemistry applied to biology.
7. Basic cellular biology.
8. The basic relationship between organs, organ systems, and their functions.
9. Apply use of the microscope to sample tissue slides.
10. Analyze scientific terminology by assessing word roots and origins.

5. Instructional Facilities

1. Standard classroom
2. Digital and audio projection of highest quality
3. Smart cart with computer or equivalent
4. Microscopes
5. Microscope slides

6. Special Materials Required of Student

None

7. Course Content

This course covers a review of basic biology material and special considerations for Allied Health Classes including:

1. Discussion and assessment of learning skills necessary for biology classes that are preparation for Allied Health programs.
2. Discussion and assessment of basic biology knowledge from prerequisites.
3. Discussion and assessment of study techniques to be successful in Allied Health classes.
4. Introduction to medical terminology (prefixes and suffixes) appropriate for Allied Health classes.
5. Reading skills for technical science books.
6. Assessment and critical thinking for science (focusing on multiple choice and free response questions).
7. Review of selected BIO 120 materials (basic chemistry, evolution, cellular biology, organ systems).
8. Usage of a microscope on histological specimens.

8. Method of Instruction

1. Lecture and discussion
2. Small group work in-class and out of class
3. Online activities using Canvas
4. Individual assignments
5. In-class discussions

9. Methods of Evaluating Student Performance

1. Complete a basic biology skills assessment assessing student’s prior knowledge of basic biology content including basic cellular biology, chemistry principles for biology, and mitosis/meiosis.
2. Demonstrate ability to focus a microscope on sample tissue slides, such as epithelia and connective tissues, and identify slides and cellular structures.
3. Classroom discussions on selected biology topics such as evolution, cellular biology, mitosis and meiosis, general chemistry for biology, etc.
4. Projects regarding basic general biology concepts such as terminology for biology and its applications, self reflections on performance (metacognition exercises) in biology, and/or the relevance of evolution to Allied Health studies.
5. Completion of final exam assessment on basic biology skills, including short answer and multiple choice questions to review content and skill growth relative to basic biology skills assessment.

10. Outside Class Assignments

1. Student will complete homework on basic biology content such as basic cellular biology, evolution, chemical bonds as applied to biology, etc.; including directed reading with active learning techniques, multiple choice questions using the RACE technique, and short answer questions to assess reading comprehension.
2. Student will complete sample multiple choice test questions with analysis on test taking techniques (RACE technique, process of elimination,etc) , with an emphasis on critical thinking skills for biological questions.
3. Student will complete sample short answer test questions that focus on conceptual understaninding of topics such as basic chemistry for biology, cellular biology, and evolution.
4. Student will complete a microscope labeling and structure description assignment.
5. Homework assignment on common prefixes and suffixes as they pertain to anatomy, physiology, and microbiology.

11. Representative Texts

1. Representative Text(s):
2. Betts, J.G., et al. *Anatomy and Physiology*. Openstax Books, January 31, 2022. <https://openstax.org/details/books/anatomy-and-physiology>,
3. Supplementary texts and workbooks:

None

Addendum: Student Learning Outcomes

Upon completion of this course, our students will be able to do the following:

1. Read and apply passages from a technical science book to sample multiple choice questions.
2. Articulate and describe science terms based on word roots provided in class.
3. Use a microscope to correctly identify and analyze basic histological specimens.
4. Discuss a basic relationship of evolutionary studies to Allied Health topics as they pertain to anatomy, physiology, and microbiology.