Course Overview

This course is a survey of biological principles with an emphasis on humans, including chemistry of life, cells, structure, function, and reproduction.

Required Text

Hole’s Human Anatomy and Physiology 14th ed. / McGraw-Hill

Student Learning Outcomes

Upon completion of this course the students will have developed the following skills pertinent to this specific course:

1. Distinguish between prokaryotic, eukaryotic, plant and animal cells, and identify the major cell structures.
2. Identify the stages of the cell cycle, mitosis (plant and animals), and meiosis.
3. Interpret result from cell physiology experiments involving movement across membranes, enzymes, photosynthesis, and cellular respiration.
4. Apply genetic principles to predict the outcome of genetic crosses and statistically analyze results.
5. Describe karyotyping, pedigrees, and biotechnology and provide an example of the uses of each.
6. Identify the parts of a DNA molecule and explain replication, transcription and translation.
7. Analyze evidence for evolution and natural selection.

In addition to these content-driven learning outcomes the students will also develop these principal educational proficiencies:

1. Gather, analyze, interpret and evaluate data from lab experiments.
2. Communicate information via written means on lab activities and projects.
3. Take measurements as part of a lab exercise and they will analyze that data to generate conclusions.
4. Make observations to test a hypothesis and generate conclusions based on these observations.
5. Work together on applied learning activities and collaborate with each other to support the outlined course goals.

Instructor

Becky Dixon

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Office Location

LHS Rm. B120

Office Hours

M-F 7th Period (1:48pm-2:37pm Regular Schedule)
7th Period (1:56pm-2:41pm Activity Schedule)
7th Period (11:00am-11:26am Early Release Schedule)
Attendance

Because this is a dual credit course, the students are held to the attendance policy set forth by the Llano Independent School District and the State of Texas for high school students. The policy is as follows.

Regular school attendance is essential for a student to make the most of his or her education – to benefit from the teacher-led and school activities, to build each day’s learning on the previous day’s, and grow as an individual. Absences from class may result in serious disruption of a student’s mastery of the instructional materials; therefore, the student and parent should make every effort to avoid unnecessary absences.

COMPULSORY ATTENDANCE – State law requires that a student between the ages of six and 18 attend school, as well as any applicable accelerated instruction program, extended year program, or tutorial session, unless the student is otherwise excused from attendance or legally exempt.

EXCESSIVE ABSENCES - Absenteeism, whether for excused or unexcused reasons, deprives the student of the experience of participating in classroom activities. It should be understood by both parent and 14 student that, in truth, a class period cannot be "made up". Although assignments done in lieu of class attendance meet the legal requirements for make-up work, such assignments are only a poor substitute for the learning experience the student gains by attending class in person. There is no way to "repeat" a classroom experience missed. Students must be in attendance at least 90% of the days the class is offered to obtain credit in each course. The board of trustees will appoint a committee to hear the petitions of students who are in attendance fewer than 90% of the days the class is offered. This committee may give class credit to a student who is in attendance fewer than 90% of the days the class is offered because of extenuating circumstances. The board of trustees will establish guidelines to determine what constitutes extenuating circumstances, subject to rules adopted by the State Board of Education, and shall adopt policies establishing ways for students to make up work or regain credit lost because of absences for extenuating circumstances.

MAKE-UP WORK- When a student is absent, it is their responsibility, and not the teacher's to make arrangements for make-up work. Time allowed for make-up work may be determined by the teacher and should be completed within five (5) school days except in very unusual circumstances. If a student is absent and does not ask for make-up assignments, a zero may be given for work missed.

Grading Policies

Grades will be based on the following factors.

<table>
<thead>
<tr>
<th>Major (60%)</th>
<th>Minor (40%)</th>
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<tbody>
<tr>
<td>Unit Tests</td>
<td>Daily Assignments</td>
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<tr>
<td>Formal Labs</td>
<td>Homework</td>
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<tr>
<td>Lab Practical or Projects</td>
<td>Short Labs</td>
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There will be 6 unit tests as well as the semester or final exam. Each of these exams will include information presented in class AND assigned readings from your textbook. These assessments will be comprehensive, meaning that they will include information presented at any time during the course. This is unavoidable because many of the early topics serve as a foundation to be built upon and developed as the courses advances.

**Final Grade Calculation:**

Your final grade in this course will be determined by the average of each marking period and your semester test. This means each marking period counts one-quarter as does your final exam. Your laboratory grades will be incorporated into the individual marking period grades.

Your semester grade will be determined using the scale:

- 90 – 100% = A
- 89 – 89% = B
- 70 – 79% = C
- 60 – 69% = D
- <60% = F

**Course Schedule**

Unit 1 Methods and Limits of Science, Lab Safety

Unit 2 Chemistry – Ch. 2, 3, 4, & 5 (briefly)

Exam 1

Unit 3 Digestion – Ch. 17 & 18

Exam 2

Unit 4 Blood (including Cell Cycle) Ch. 14

Unit 5 Circulation – Ch. 15

Exam 3

Unit 6 Respiration - Ch. 19

Exam 4

Unit 7 Urinary System – Ch. 20 & 21

Unit 8 Reproduction (including Genetics) Ch. 22

Exam 5

Unit 9 Human Evolution – Supplemental Materials

Exam 6

Review and Semester Test