

Dallas High School

Home of the Dragons



Biology - Semester 1 2022-2023

Instructor: Emily Schmelling

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Office Hours: Wednesday and Thursday during ALIE time. Before and after school by appointment

Course Description:

What is Biology? Biology is the study of living things, how living things interact with one another, and how living things interact with their environment. This year we will look at the super small (think cells and DNA) and also the really big (my favorites - plants and animals). Having a concrete understanding of biological topics is a very important skill to have in our current world. What does it mean that an apple is a GMO? What effects could climate change have on you personally? What do different types of food do for our body? We will explore all of this and more. To explore these topics we will engage in discussions, read articles, and conduct laboratory work. Biology is a class that all students need to pass in order to graduate.

Course Topics: *(all topics will be covered, but might not have a full designated unit - some topics will be combined to help students make connections between ideas)*

Topics	Standards Assessed
Principles of Biology	Core Ideas 1, 3 & 4
The Chemistry of Life	Core Ideas 1, 3 & 4
Cells	Core Ideas 1, 3 & 4
Homeostasis & Transport	Core Ideas 1, 3 & 4
Photosynthesis & Cellular Respiration	Core Ideas 1, 3 & 4
Cell Division	Core Ideas 1, 3 & 4
Protein Synthesis & Genetics	Core Ideas 2, 3 & 4

Standards to Be Assessed:

Core Idea 1: From Molecules to Organisms: Structures and Processes- *How do organisms live, grow, respond to their environment, and reproduce?*

- Structure and Function-How do the structures of organisms enable life's functions?
- Growth and Development of Organisms- How do organisms grow and develop?
- Organization for Matter and Energy Flow in Organisms- How do organisms obtain and use the matter and energy they need to live and grow?
- Information Processing- How do organisms detect, process, and use information about the environment

Core Idea 2: Heredity: Inheritance and Variation of Traits- *How are characteristics of one generation passed to the next? How can individuals of the same species and even siblings have different characteristics?*

- Inheritance of Traits- How are the characteristics of one generation related to the previous generation?
- Variation of Traits- Why do individuals of the same species vary in how they look, function, and behave?

Core Idea 3: Scientific Inquiry- *How does the process of science actually work?*

- Can you create a sound scientific hypothesis using observations?
- Can you design and conduct a controlled experiment, field study, or other investigation to make systematic observations about the natural world, including the collection of sufficient and appropriate data?
- Can you analyze data and identify uncertainties in order to draw a valid conclusion that is supported by evidence?
- Do you understand that science is built upon the work of other scientists and is always changing based on new observations, questions, and technological advances?

Core Idea 4: Engineering and Design- *Can you design a valid scientific experiment?*

- Can you design an experiment that answers your questions while incorporating various trade-offs in time, money, ethics, public opinion, and other resources?
- Can you analyze data and determine the best conclusion or alternate scenarios?
- Can you refine your experiment to better answer your question and address future research needs?

Grading and Assessment:

Grades will be based on in class assignments, participation, homeworks, projects, labs, quizzes, and tests. At the end of the semester the points from all of these areas will come together and determine a student's final grade. Grades are not weighted, meaning that all aspects of a student's learning process will be reflected in their grade.

The following grading scales will be used to calculate a student's course grades and grade point average:

Course Grades will be calculated using the following scale:	Grade Point Averages (GPAs) will be calculated using the following scale:
A 90-100%	A (4.0)
B 80-89%	B (3.0)
C 70-79%	C (2.0)
D 60-69%	D (1.0)
F 0-59%	F (0)

Late Work and Test Retakes:

Late work is only accepted until the test retake deadline for that particular unit. Test retake deadlines will be announced to the student during class, posted to our class calendar located in my classroom, and also posted on Canvas. The retake deadline is typically **2 weeks after the initial testing day**, but due to holidays or “no school” days, the deadline might be up to 3 weeks after the initial testing date. Additional conversations about late work turned in after the retake deadline will be had individually.

Academic Integrity:

The faculty and administration of Dallas High School believe that honesty and integrity are personal attributes worth nurturing in our students. Because we value the educational and skill development opportunities provided by classroom assignments, research projects, tests, and credit recovery, we expect students to express academic integrity by doing their own work and properly documenting information gathered from other sources. Congruous with this belief is our resolve to handle those who violate the principles of academic integrity with stringent consequences as outlined in the [K-12 Code of Conduct](#).

Student Behavior and Expectations:

Students are expected to demonstrate appropriate behavior in the classroom and contribute to a safe, positive, caring learning environment by cooperating; doing their best to achieve academic excellence; respecting themselves, others, and the environment; and conducting themselves in a safe manner at all times. Clearly defined behavioral expectations are consistent school-wide through the Dragon **PRIDE** acronym. We strive to teach our students to take **PRIDE** in themselves and the school by demonstrating: **Purpose, Respect, Integrity, Determination, and Empathy** at all times. For more information, please see the [Student/Parent Handbook](#).

Student Electronic Devices at Dallas High School:

Students are allowed to possess personal electronic devices at school and at school-sponsored activities provided such devices are not used in any manner that may disrupt the learning environment, school-sponsored activities or violate Board policies, administrative regulations, school or classroom rules, or state and federal laws. Cell phone usage is **only** permitted during scheduled passing periods and lunch times. Students are not allowed to be on their phones in the hallways and other common areas during class time and cell phone usage in the bathrooms and locker rooms is prohibited **at all times**. Students must use a Chromebook or laptop to complete and submit coursework. Cell phones cannot be used for this purpose and can only be used during class time with express advance permission from the teacher.

Diversity:

Dallas School District #2 recognizes the diversity and worth of all individuals and groups and their roles in society. It is the policy for the Dallas School District #2 Board of Education that there will be no discrimination or harassment of individuals or groups on the grounds of age, color, creed, disability, marital status, national origin, race, religion, sex or sexual orientation in any educational programs, activities or employment.

Gender:

Dallas High School will be proactive in creating a school culture that respects and values all students and fosters understanding of gender identity within the school community. Such guidelines are intended to ensure a safe learning environment free of discrimination and harassment, and to promote the educational and social integration of transgender students. They do not anticipate every situation that may occur and the needs of each student will be assessed on a case-by-case basis.

Parents: Please keep the rest of the syllabus. By signing this form, you acknowledge that you have read and fully understood the expectations, rules, and standards associated with this course. If you have questions, please call 503-623-8336 or email using the email address provided in this document. This page is due back by Friday, September 17th to your student's teacher.

Parent Name:

Parent Signature:

Parent email Address:

Parent Phone:

Student Name:

Student Signature: