

"You cannot teach a man anything, you can only help him find it within himself."

-Galileo Galilei

A. COURSE DESCRIPTION

General Biology is a laboratory science course that investigates the relationship between structure and function from molecules to organisms and systems, the interdependence and interactions of biotic and abiotic components of the environment, and mechanisms that maintain continuity and lead to changes in populations over time. Students explore biological concepts through an inquiry approach. Embedded standards for Inquiry, Technology, Engineering and Mathematics are taught in the context of the content standards for Cellular Biology, Interdependence, Biochemistry, Flow of Matter and Energy, Heredity, Biotechnology, Biodiversity and Evolutionary Biology.

B. COURSE OBJECTIVES

1. Students will demonstrate mastery of course content through performance-based assignments.
2. Students will collaborate in research groups to further their academic knowledge.
3. Students will utilize higher-order thinking to explain the "big ideas" of Biology.
4. Students will critically analyze current issues in science and collaborate to form proposed solutions.
5. Students will actively engage in scientific inquiry and laboratory investigations to reinforce course content.

C. SUPPLIES + RESOURCES

One 2" binder (for coursework)

One 3-prong pocket folder (for the first 15)

#2 pencils (lots of them)

Colored pencils (we will color often)

D. GRADING SYSTEM

30% - Tests

30% - Labs + Projects

20% - Quizzes

20% - Classwork/Homework

Final Course Grade:

40% - Semester 1 Grade (Q5 + Q6 = S1)

40% - Semester 2 Grade (Q7 + Q8 = S2)

20% - NC Biology EOC Score (X1)

100%

Grading Scale: 100-90 (A)

89-80 (B)

79-70 (C)

69-60 (D)

<60 (F)

E. COURSE COMPONENTS

1. Class Participation

As a group of scientists, we are expected to collaborate effectively to solve issues and discuss important concepts in this class. Many assignments will require you to work in groups, pairs or small teams to accomplish a specific goal. Your group will most often be graded on work ethic during collaboration through peer-review rubrics and how effectively you carry out your "role" in the group. Days in class where we do blended work will require you to complete various "duties" before you leave for the day. Participating in class requires active listening and completing assignments. I much prefer your best effort and giving something a try than simply not responding or not completing an assignment.

2. First 15 Activities

During the first 15 minutes of class you will have a routine of things to accomplish before class begins. When you enter the classroom have your “FIRST 15!” sheet out on your desk and your “Student Learning Map.”

- 1) On the “Planning” side of your “FIRST 15!” sheet, copy down the agenda for the day. It will be written on the board underneath the “TODAY” label. Also write down anything we have “Around the Corner” or coming up soon.
- 2) If we are starting a new lesson or unit, copy down the essential question (also on the board) onto your “Student Learning Map.”
- 3) On the “Brain Buster” side of your “FIRST 15!” sheet, answer your brain buster for the day. The brain buster will be on the SmartBoard. Every day you will answer your brain buster in a specific box and we will not always go in number order throughout the week. Make sure to read the board so you know what goes where!

3. In Class Activities

Class will normally follow some variation of what I call “Me, You, Us.” “Me time” is when I’m speaking science to you and you are writing down the wonderful information in your notebook (binder) or we are sketch-noting together. “You time” is when you are working independently or in your teams on a project or assignment. “Us time” is when I’m working with you on a lab or something that requires my guidance.

The Turn In Bin: ANYTHING that you want to give to me should go in the crate labeled “TURN IN.” Sometimes I’ll ask for pieces of your binder to be turned into the bin. If I’m ever unclear or you just want me to hold onto something for you, I would throw it in the bin.

BioBinder: Almost everything that we do in class will go into your BioBinder and have a number. I will keep a “Table of Contents” in class for you to use for each new unit that we start so that you know what goes where. Please DO NOT throw anything away unless I tell you that you can. You are building a great study guide for your NC Biology EOC!

When You’re Out: When you miss a day (or a few) your first move should be to read the weekly agenda on the “Info Board” near the door to the classroom. I post my weekly lesson plans in a clear sheet protector under the “This Week” label so that you can see what we did in class while you were out and what you need to grab. Extra copies of each numbered assignment in the binder will be in the crate labeled “BioBinder.” There will also be a sample binder for you to use in case you need help completing the work or need a visual of what your binder should look like. I would suggest taking pictures of the work in the binder to complete your own work. Please do not remove my samples from the binder! You have until the unit exam (when binders are due) to complete absent work.

Student Learning Map: Every day of class you should have your Student Learning Map (SLM) out on your desk and visible. Every lesson that we learn will have an “essential question” that you will have to answer to show me that you understand what we are talking about in class. Some lessons will last a few days, while others will be just a single day. We will most often work on the SLM together as a class (filling in vocabulary as we learn it, answering EQs together, etc.) but it should be your goal to answer the lesson essential questions when we have completed each lesson. SLMs are always number ___ in your BioBinder and will be checked periodically for completion (not accuracy, meaning at least try to answer the question even if you are unsure, never leave anything blank in this class). **You may use your SLM on the unit exam** as a cheat sheet and will turn it in along with your exam for a grade.

Homework: Sometimes your homework will simply be what we (or you) were unable to finish in class. While this is a very rare occurrence, I strongly suggest using class time wisely and being productive so that you can turn your science brain off when you leave our classroom. If I assign homework, it will be graded the following day in class for completion and effort.

Vocabulary: Every science class that you take will be focused around being able to “Speak like a Scientist.” Communicating with your peers and me and knowing what scientific terms mean are integral in your success in this class. Essential vocabulary (the most important terms you need to know) will be represented on the wall underneath the “Speak like a Scientist” label for you to use throughout the unit.

Flash Cards: As “old school” as it sounds, one of the best ways to learn vocabulary is through repeated exposure to the terms. For each unit, you will make a set of flash cards based on the guidelines that I give you. You will turn in your flash cards for a grade on the day of the unit exam.

Quizlet: Each unit will have a set of terms on Quizlet that I’ve created. You will use my set of cards to build your own flash cards. PLEASE do not come up with your own definitions or diagrams. Literally steal the information on my set to build yours! We will also use Quizlet in class for review.

BioLingo Pictionary: Throughout the semester you will create a “picture dictionary” of some of the terms that we learn in class that can be represented visually. Each unit you will be given a list of terms and need to have each page completed for that unit by the unit exam.

Latin Lingo: Throughout the semester we will work on Greek and Latin roots that are commonly found in scientific language.

Laboratory: There will be numerous lab experiences each grading period including field work. For each lab you will be graded on numerous parts of the lab, which could include: Pre-Labs, In-Lab, Technique and Post-Lab Analysis Questions. Your safety in the lab is of the utmost importance and you should follow all rules and expectations while performing labwork.

4. Last 15 Activities

During the last 15 minutes of class I will ask you to work on a particular assignment or have a specific task that I need you to do before you leave. If this isn’t the case, you should choose any of the following to do: answer the essential questions on your Student Learning Map, work on your flash cards for the unit we are studying, work on your BioLingo Pictionary, get your binder organized, etc. If you can’t find something to do, please ask me and I’m sure we can find something!

5. Assessments

Unit Exams: There will be a test (exam) at the end of every unit we study to ensure that you are retaining material and are working towards proficiency on the NC Biology EOC. Unit exams will be a blend of multiple choice, short answer, essays and questions requiring you to illustrate (draw) the answer.

BioBinder: Sometimes I will randomly check your binder for a quiz grade (seeing if it’s in order, seeing if you have a specific number completed, etc.) On exam days you will turn in your binder for a test grade. This means that all work is “late” after I collect binders from the class. The way that I grade your binder will vary throughout the semester and will not be announced until the day before an exam! Keep up with your assignments and use class time wisely so that you have all parts completed in case I randomly ask to see your binder.

Quizzes: In each unit you will have quizzes that test your knowledge of what we have been learning including the content itself or the vocabulary we’ve used (or both). Occasionally you will have a Latin quiz on the Greek and Latin roots.

PBAs: Performance Based Assessments (aka “projects”). Requirements for unit PBAs will be described at the beginning of each unit and are due the day of the unit exam. Rubrics will be provided.

F. CLASSROOM PROCEDURES, RULES + EXPECTATIONS

1. Keys to Success...

Respect yourself, your teacher, your colleagues and your school.

In this class you are part of a team. We are a group of scientists searching for answers. Our team can only be successful if everyone is on board and willing to learn.

Follow the “routine” of the class. (aka “Go with the flow.”)

I have a very specific way of running the class. Following classroom procedures and listening attentively during instruction will keep you on the path towards success.

Be responsible.

You are responsible for your learning in this class. This means that you turn assignments in on time, make an effort to participate in class and take responsibility for your own actions.

Be an adult.

I will treat you all as adults. My expectation of you is to carry yourself in an educated and adult manner in my class. This includes not using profane language in my class.

Think Positively! Have FUN!

It is my goal as your teacher to get you excited about science! We are one of the only disciplines where we can literally get our hands dirty! I want you to enjoy your time with me and if at any point you dislike something I’m doing, don’t hesitate to come and talk to me about it!

Positive Reinforcements	Negative Consequences
<p>As you journey on the path to success, these are a few ways in which I will help you!</p> <ol style="list-style-type: none">1. Verbal Praise (Great Job!)2. TONS of smiley faces! 😊3. Positive phone calls/notes home4. Communication to other teachers/coaches	<ol style="list-style-type: none">1. In-class Verbal Warning2. Student/Teacher Conference3. Parent Contact4. Parent Contact with Discipline Referral (Write Up) <p>*Depending on the incident, the order may change and the route of action may skip a few steps.</p>

2. Leaving the Room: We will follow the Terry Sanford High School policy for trips to the bathroom and being in the hallways during class. Please have your planner filled out with date, time and location before you ask me to sign it. Students are not allowed outside of class during the first 10 minutes and the last 10 minutes of class.

3. Cell Phones & Talking: Terry Sanford High School’s policy on cell phone use states that students are not allowed to be on a cellular device unless the teacher deems it is appropriate and for “educational purposes” only. All I ask is that you are respectful during class and follow this rule. Headphones are not to be worn in class and such use will result in a dress code ticket.