



LINGANORE HIGH SCHOOL

Biology Syllabus, Merit Fall, 2015

Mrs. Ericsson: Room A141

Email: beth.ericsson@fcps.org (best way to reach me)

Voicemail: 240-566-9780

Dear Biology Students,

Welcome to my Biology class at Linganore High School! I hope that you had a fantastic summer and are excited to start what will certainly be a challenging, rewarding and memorable semester of Biology. I have been teaching mostly Biology at Linganore High School for a while now, but I have also taught ICP, Environmental Science and Advanced Placement Biology here at Linganore and at Brunswick HS. Additionally, I taught Life Science and Earth Science at a private school for several years. Before I began my teaching career, I was in graduate school where I conducted research in both neurobiology and reproductive biology, earning a Master's Degree in Cellular and Molecular Biology. I am delighted to be part of the Linganore school community and am very excited to be teaching Biology here. It is my goal to share my love of Biology with you and to teach you to be an independent thinker and self-motivated learner. I am confident that with good attendance, consistent effort, class participation, an open mind, a positive attitude, and solid study skills (**READING** the text is a must), you will earn an A or B in this course.

I want you to succeed and I believe that you can succeed.

Let's work together to make this semester one of the best.

Mrs. Ericsson

COURSE OVERVIEW

In this course you will learn the basic concepts in the study of life. Units of study include the scientific method and scientific inquiry, biochemistry, cell biology, genetics, adaptations and diversity, ecology, drug education and the human body. Furthermore, this course will provide you with authentic laboratory experience through a variety of hands-on experiments. Course work includes a balance of concrete and abstract material with an emphasis on both teacher-directed and independent work (FCPS Course Catalog). Biology is a required course for high school graduation as state mandates are integrated within the program of study and it includes a high school assessment (HSA).

You need to pass both the course and the Biology HSA in order to graduate from high school.

COURSE TEXTBOOK

Biology, Exploring Life: Campbell, Williamson, and Heyden: Pearson, Prentice Hall; 2004
Replacement value if lost, severely damaged or not returned: \$100.00

COURSE AFTER SCHOOL TUTORING SESSIONS

Thursday: 2:30 – 3:00 and/or by appointment – also see ELO information on page 3

GOALS

Students will develop and demonstrate knowledge in the following areas:

- ☆ Basic concepts in biology
- ☆ Principles and practices of scientific investigation (The Scientific Method)
- ☆ A repertoire or processing and critical thinking strategies that will strengthen and enhance problem-solving skills
- ☆ An interest and appreciation for the world around them

Students, PLEASE KEEP THIS SYLLABUS IN YOUR NOTEBOOK!

Course Outline

| <u>Unit of Study</u> | <u>Teaching Topics</u> | <u>Projects</u> |
|--|---|---|
| Nature of Science Scientific Inquiry Scientific Method The Microscope | Metric system - Problem solving - Steps used in conducting experiments - Tools/Techniques of the trade | Concept of Biology project |
| Biochemistry | Macromolecules - Enzymes | CRES* (Experimental Design Enzymes) |
| The Cell Energy Flow | Parts of a cell - Structure and function - Cell transport – Photosynthesis - Respiration | |
| Cellular Reproduction Gene Chemistry Genetics/Heredity Biotechnology | Mitosis/Meiosis - DNA/RNA - Protein synthesis/Mutations - Mendelian genetics - Human genetics - Genetic disorders – Cloning - Gel Electrophoresis | CRES* (Data Analysis Mendelian Genetics) |
| Environmental Interactions | Population biology - Ecosystem components - Biotic and abiotic factors - Relationships among organisms - Human impact on the environment | |
| Evolutionary Relationships Classification | Evidence for evolution – Adaptation - Natural selection - Concepts and systems | CRES* (Technical Passage Natural Selection) |
| Body Systems Drug Education | Structure and function - Neurobiology of ecstasy - Harmful effects of illegal drugs | Student Service Learning Drug Awareness Project |

CRES TESTS

*In the Experimental Design CRES, students will create, evaluate or identify elements of an experimental design.

*In the Data Analysis CRES, students are asked to interpret the data provided.

*In the Technical Passage CRES, students use information from a reading to justify a response to the prompt. Students are also asked to synthesize information from the reading with prior content knowledge.

CLASSROOM GUIDELINES

Responsibilities

1. Be in your assigned seat and ready to work when the bell rings
2. Bring all necessary materials to class every day (this includes a positive attitude)!!
3. No eating in class (Frederick County Science and LHS policy). You may drink **ONLY WATER** and it must be in a clear spill-proof container with a cap.
4. **ABSOLUTELY NO CELL PHONES** are to be on (not even on vibrate) during class. Failure to respect this rule will result in an automatic after school detention the first time, along with a phone call home and a referral for any additional incidents.
5. Participate in all class activities.
6. Follow directions the first time they are given.
7. Always stay in your seat and wait to be dismissed before leaving the classroom.
8. Please do not touch any equipment unless the instructor gives permission. Any student who breaks or damages any equipment will be required to pay for its replacement. If blame cannot be determined, then the entire laboratory group will share in the cost. Any unpaid damage will become a school obligation (LHS Science Department Policy).
9. **Respect yourself, your classmates, and your teacher.**
10. Students **MUST** have their agendas with them **EVERY DAY!** The agenda contains a hall pass, and students **CANNOT** leave the room without the hall pass in their own agenda!!! Plus, it is needed for writing down homework on a daily basis.

In addition to these responsibilities, all Frederick County Public School policies will be strictly applied and enforced in this class. Refer to your Calendar Handbook to familiarize yourself with these policies, especially those regarding attendance, cheating and plagiarism, weapons, drugs, alcohol and dress code.

Consequences

(not necessarily in this order, depending on the severity of the inappropriate behavior)

1. Verbal Warning and/or student conference after class
2. Detention and parent contact
3. Office Referral

LHS Honor Code

All students at Linganore High School are encouraged to achieve at the highest level of their abilities with academic honesty and personal integrity. The Academic Honor Code has been created to establish a common understanding among staff, students and parents/guardians as to what constitutes cheating.

LHS labels each of the following as academic misconduct:

- Cheating, whether on exams or assignments, includes but is not limited to: copying the work of others, asking or allowing another to do your work, providing your work for another to use.
- Plagiarism, also known as academic theft, refers to the use of another's ideas or words without proper attribution or credit.
- Collusion is when any student knowingly or intentionally helps another student perform any acts of the above cheating or plagiarism. Both students will be subject to discipline for academic dishonesty. There is no distinction between those who cheat, plagiarize, or steal and those who help or who willingly allow it to occur.

Academic honesty is a cornerstone of the high academic integrity established and expected at Linganore High School. Violations of this code will result in the total loss of credit for the assignment and the recording of a failing grade. It may also entail loss of credit for the course and additional disciplinary action. Violations of the LHS Honor Code can also affect extracurricular activities, including but not limited to participation on sports teams, membership in clubs or honor societies, scholarships, and letters of recommendation.

NOTEBOOKS - REQUIRED MATERIALS – AGENDA & Leaving the Classroom

Each student is required to keep an *organized 3-ring binder* that is to be used **exclusively** for this class. The binder is to contain a small quantity of loose-leaf paper and dividers labeled for different class activities (notes, activities (labs and classwork), homework and quizzes). All entries in your notebook are to be organized by date. This notebook will be periodically collected and graded. Students will also need a cover for their textbook, blue/black ink pens, #2 pencils, colored pencils, calculators, and their agenda. The agenda is especially important as it is to be used to write down homework daily and it contains a hall pass. To leave the classroom, the classroom log at the door of the class must be filled out in addition to the teacher signing the filled out hall pass in the agenda. The agenda must then be carried with the student when he/she is out of the room.

LATE AND ABSENT POLICY

Work is due on its assigned due date. Late work will only be accepted for partial credit with teacher approval (based on the particular reason why it is late). Students are expected to attend class daily. If a student misses a class, it is his/her responsibility to get any missed notes and make-up any missed assignments. All make-up work will be placed in the WHILE YOU WERE OUT folder located on the bulletin board at the back of the classroom. Students are required to pick up those assignments from the folder upon their return and then to complete the assignments and turn them in, in a timely manner. The amount of time to make up work is equal to the length of absence. Students have one week to make up lab activities. It is the student's responsibility to schedule a day and time to complete the missed lab. **Students missing class for school activities including but not limited to field trips and club meetings are responsible to submit homework and other assignments due prior to missing class** (if the assignment is due on the day they are away) or on the original assignment due date. Students should give advance notice to their teachers when it is known that they will miss class due to a school activity.

Extended Learning Opportunity (ELO)

Linganore High School provides extended learning opportunities for students in Biology class after the school day, 2 days per week, Tuesdays and Wednesdays, 2:30-3:40 pm in A141. These ELO sessions include tutoring and re-teaching. These sessions will focus on students who need additional support to score in the Proficient range on their Biology High School Assessment (HSA).

GRADING

Students earn grades in a variety of ways (tests, labs, warm-ups, class-work, homework, quizzes, CRES, participation, projects, field trips, presentations, etc). Grades in this class are weighted as follows:

| | |
|------------------------------------|-------------------|
| Homework (also includes ClassWork) | 10% of term grade |
| Quizzes (also includes Labs) | 20% of term grade |
| Tests | 70% of term grade |

Grades can be accessed online at any time at <http://www.fcps.org>. Just follow the “**Grades Online**” link on the right hand side of the page to see your student’s grades. Also, I regularly comment on student work – please look at my comments for ways to improve grades. Please have student see me before or after class to discuss grades. We do not have time to discuss grades during class.

Students’ final course grades are calculated using the following formula and using regular rounding rules:

Term 1 grade (40%) + Term 2 grade (40%) + average CRES grade (20%)

| | | |
|-----------|---|----------------------------------|
| 90 – 100% | A | Exemplary Performance |
| 80 – 89% | B | Skilled Performance |
| 70 – 79% | C | Satisfactory Performance |
| 60 – 69% | D | Minimally Acceptable Performance |
| 0 – 59% | F | Unacceptable Performance |

Parents (and students), please make sure that you check grades frequently so you are aware of your student’s grade in this class!! 😊

As I have previously stated, all students in the state of Maryland must pass both the high school biology course and HSA in order to be eligible for graduation. Consequently it is very important to keep tabs on your student’s grades.

OTHER IMPORTANT INFORMATION

Due to increasing cases of allergies, asthma, and migraines, among our students, staff and faculty, please do not apply or wear perfumes, colognes or other scented products in the classroom. Also, many students have nut allergies, please never open or consume nuts in the classroom. Thank you for your compliance with these requests.

RECOMMENDATIONS

- ✓ Students should acquire the required materials ASAP and have them in class every day. If the purchase of these materials is problematic, please let me know as soon as possible. I have extras that I can share.
- ✓ If you are having difficulty in class, it is VERY IMPORTANT that you let me know immediately. I am available for tutoring after school. If you are interested in extra help, please talk to me and we will schedule a time.
- ✓ Pay attention and ask questions in class. Keep that cell phone off and away!
- ✓ The best way to earn a good grade in this class is to keep up with all assignments (write down homework on a daily basis) and put forth a good effort. I have high expectations for your success in this class. I know you can do excellent work.
- ✓ Keep track of your performance in Biology! Check your grade often.
- ✓ Once again I welcome you and challenge you to BE EXCITED about Biology. I guarantee that if you put forth strong effort, come to class prepared and with a positive attitude, and keep up with all your assignments, you will learn much about biology and have LOTS OF FUN in the process!

A NOTE TO PARENTS ABOUT CELL PHONES/iPods

In this day of exploding technological gadgetry, more and more students are carrying cell phones and iPods. Unfortunately, cell phone and iPod use in the classroom can have serious negative consequences in terms of educational success. Students routinely hide their electronic devices in their lap or purse where it is very difficult for a teacher to see, and continuously text/listen to music/play games throughout class. When a student is engaging in this type of behavior, he or she is missing valuable and important content information, and consequently jeopardizing his or her educational success. Therefore, I am asking you to please discuss the inappropriate use of cell phones/iPods during classroom time with your student. Thank you!

Students, PLEASE KEEP THIS SYLLABUS IN YOUR NOTEBOOK!

You only need to return the LAST PAGE to me!

BIOLOGY SYLLABUS SIGN AND RETURN FORM

The last page of this syllabus needs to be signed by both you and a parent or guardian. Once completely filled out and signed, please detach the last page and return to me.

Student Name: _____

PLEASE PRINT NEATLY

Class Period: _____

Please sign, have a parent or guardian sign, detach and return this page to me during the next class.

Student:

"I have read the course syllabus, understand my obligations, and will abide by these guidelines. I will seek help if I am struggling in class. I understand that I must have my agenda with me EVERY DAY in order to travel outside of the classroom for restroom use. I understand that I should NEVER have my cell phone or iPod on in class, and that I will have to serve an after school detention if I use my phone or iPod without permission. I will try to avoid using scented products and eating nuts in the classroom to protect the health of others. I will check grades and look at teacher comments so I know how to improve my work. Lastly, I understand that if I lose or fail to return my textbook, my parents/guardians will be charged a textbook replacement fee of \$100.00. Failure to pay this fee will result in me not receiving my report card and diploma."

STUDENT SIGNATURE: _____

Date: _____

Parent or Guardian:

"I have fully read the course syllabus, and understand my child's obligations. I understand that my child MUST have his/her agenda with him/her in class EVERY DAY in order to travel outside of the classroom to use the bathroom during class. I am aware that grades are posted online and understand that it is my responsibility to frequently check my child's grades and look at teacher comments so that I am aware of how my child is progressing in class and what can be done to improve. I will encourage my child to be a self-advocate and seek help if needed. I understand that scented products can be harmful to the health of others and I will help my child understand the importance of avoiding their use. I am also aware that if my child is using a cell phone or iPod in class, he/she will have to serve an after school detention, and face administrative referral if it occurs a second time. I understand that my child must pass both the high school biology course and the associated high school assessment in order to be eligible to graduate. Lastly, I understand that if my child loses or fails to return his/her textbook, I will be charged a textbook replacement fee of \$100.00. Failure to pay this fee will result in my child not receiving his/her report card and diploma."

PARENT SIGNATURE _____

Date _____