2018-19 School Year

Mr. Fatsy's Principles of Biology Course Information
Naugatuck High School Science Department
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Class Website: www.birdmanscience.weebly.com

Mr. F's Biology Syllabus

Welcome to Naugatuck High School's Principles of Biology course. This course serves as an introduction to the basic concepts of the natural world learned through a series of lectures, labs, application-based activities, and fun group projects. Students will leave the course with basic understanding of the major concepts on how cells function, how organisms survive and reproduce in this world, , and how living organisms interact with both one another and the environment in which they live.

I. HOMEWORK POLICY: Homework is assigned to complement classwork and may also be a completion of a class activity. Homework volume will vary based on the topic being covered but averages 1-3 assignments per one week of classes. Homework will be announced during class, posted on the white board, and will also be posted on the "Class Board" of Mr. F's website (www.birdmanscience.weebly.com). All worksheets are posted to the class website in electronic format which makes them available 24/7. Homework is valuable, use it as such! **From the date assigned, a student must have work turned in, per Science Department policy, within 5 calendar days of the date assigned. Work turned in after this point will not receive credit but will be reviewed and commented upon. LATE WORK IS NOT ACCEPTED AT THE HONORS LEVEL.**

II. SUPPLIES FOR THE COURSE: You will require a 1-inch three ring binder in which to keep all handouts. You will also need a calculator for statistical work, a pencil for sketching observations, a pen for notes, and a fully-charged Chromebook to use for specific research and collaborations. Suggested items, but not required, are a metric ruler, colored pencils, and highlighters.

III. CELL PHONE POLICY: Per NHS Policy, **students are not permitted to use electronic devices in school in classes or hallways between the hours of 7:30 and 2:00**. Not adhering to this policy will result in: (1) loss of phone and student must pick up from Dean's Office after school (1st offense), (2) loss of phone and parent must pick up from Dean's Office after school (2nd offense), (3) let's hope there is never a 3rd offense because you are all very wise and mature students who prioritize academic success and bettering yourselves over all else.

IV. GRADING POLICY: Your grade is based on points received for work submitted in the categories seen below. I grade on a point basis (points earned/total points). The semester breakdown is that each quarter is worth 22 percent of your final grade and your final exam is worth 12 percent.

Formative Assessments	15%	Classwork assessments to show knowledge on a particular topic
Labs	35%	Paper labs, investigations, and dissection/specimen based labs
Practice	5%	These are drills and work to gather more familiarization with a topic
Summative assessments	45%	Tests and some group collaborations

V. CLASS ATTENDANCE: Class participation is mandatory for success in my classes and an important part of the learning process. BE ON TIME!!! I begin class promptly at the bell.

When you miss a class, you are responsible for the following:

- Picking up work you've missed while you were out.
- Check with a classmate for any class notes you may have missed.
- Complete assignments on your own time (NOT DURING CLASS). Assignments that have been finished in class at the expense of that day's work will not receive credit.
- Feel free to see me if you have questions on the assignments you've missed, or that particular lesson's content AFTER you have reviewed the work/material yourself.

- For extended absences, please see me to discuss a reasonable make-up schedule.

When you miss a lab activity, you will need to make it up after school, by appointment, **within 3 days of the lab**.

When you miss a quiz/exam, it is YOUR responsibility, **on the day you return** to school, to make arrangements to take the make-up test. I will not track you down for this, it is your responsibility! After 5 calendar days, you will not be permitted to make-up the test.

If you are absent the day before the test, you will still be expected to take the test as scheduled. You may want to check with a classmate or check the class website to discuss/review what we covered in class.

If you are absent due to suspension, all work is due on the day you return to school. It is your responsibility to arrange for someone to pick up your assignments daily at the beginning of your suspension OR check the class website.

VI. LAB SAFETY: The Lab Safety acknowledgement form must be signed by your parent or guardian. All safety precautions, good behavior, and appropriate attire must be maintained for a student to participate in lab activities. *Consequences for inappropriate lab safety issues follow Science Department Policy (see NHS Laboratory Safety acknowledgement form for further information).*

VII. COURSE FLOW & TOPICS COVERED:

Unit Name	**Topics Covered**	**Time Frame**
Structure and Function	homeostasis, cell membrane structure and function, cell transport mechanisms, feedback mechanisms in living organisms, hormones, body system interaction, hierarchical organization of living organisms	Q1 (September-October)
Matter and Energy in Organisms and Ecosystems	photosynthesis, energy transformation, biochemistry of living systems, cellular respiration, food web dynamics	Q2 (November-January)
Inheritance and Variation of Traits	DNA structure and function, how DNA determines protein structure, role of proteins in living organisms, gene expression, how different traits are passed on in families, meiosis and mitosis	Q3 (February-March)
Interdependent Relationships in Ecosystems	Interspecies relationships, carrying capacity, limiting factors of ecosystems, patterns of growth in populations, disturbances, energy transfer through trophic levels, ecosystem recovery, human impacts on the environment, solutions for habitat decline	Q3-Q4 (March-April)
Natural Selection and Evolution	Group behavior and species survival, adaptation, Darwin's theory	Q4 (End of April-May)