Honors (G) Biology Syllabus (Fall 2009)

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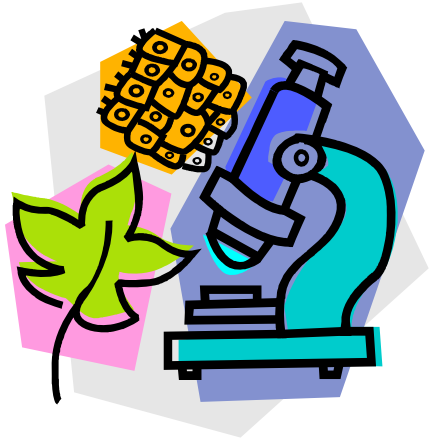
Help Sessions: Wednesdays, 7:30 - 8:30 am or by appointment
The Homework Hotline operates from 5:00-8:30 PM and can be reached at (404) 843-7700.



Course Description: This course provides a rigorous in-depth study of the methods of science, ecology, cell structures, functions and processes, basic organic chemistry, and genetics. Emphasis is placed on scientific inquiry and critical thinking at an advanced level. Students will be engaged in challenging assignments that demonstrate how biology is used in everyday life and the world of work. They will be held to high expectations regarding their quality of work and personal behavior. A variety of instructional methods will be used including computer-based instruction, case studies, projects, discussions, and laboratory investigations.

There will be an **end of the year course test** covering material from both Fall and Spring semesters. Students in all high school honors science classes must complete a literature review during first semester. Honors classes will move at a faster pace, will require more independent study, will study topics in greater depth, and will include more enrichment topics/activities than a regular class. Any students who aspire to participate in highly competitive summer programs offered on university campuses are encouraged to complete a science fair project.

Honors and Gifted biology have the same curriculum, however; there will be differentiation in requirements and test assessments.

Materials:
Textbook: (Issued) Biology. Nowicki, Stephen. McDougal Littell Publishing. Cost of text: $75.00

Students should purchase and bring to class **everyday**

1. three ring binder and supply of lined paper & graph paper
2. pencil and pen (colored pencils, if possible)
3. basic calculator
4. current assignments
5. textbooks are only brought to class on an as need basis (you will be notified ahead of time)

Units of Study and Objectives: This course is divided into the following units with a written assessment at the completion of each unit. Quizzes are given, both announced and unannounced, and can be expected every two weeks, covering the reading assignments.

Georgia Performance Standards (GPS) (www.georgiastandards.org/science.asp)	Unit	Textbook Correlation	Approximate Pacing
SCSh1: Students will evaluate the importance of curiosity, honesty, openness, and skepticism in science. **SCSh2:** Student will use standard safety practices for all classroom laboratory and field practice investigations. **SCSh3**: Students will identify and investigate problems scientifically. **SCSh4:** Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials. **SCSh5:** Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations. **SCSh6:** Students will communicate scientific investigations and information clearly. **SCSh7:** Students will analyze how scientific knowledge is developed **SCSh8:** Students will understand important features of the process of scientific inquiry.	Scientific Inquiry and Laboratory Safety	Chapter 1	5 days (and ongoing throughout the semester **)**
Standard SB4: Assess the dependence of all organisms on one another and the flow of energy and matter within their ecosystems.			
Element A: The student will investigate relationships among organisms, populations, communities, ecosystems, and biomes. **Element B:** The student will explain the flow of energy and matter through ecosystems **Element C:** Relate environmental conditions to successional changes in ecosystems. **Element D:** Assess and explain how human activities influence the environment.	Ecology	Chapters 13-16	3 weeks
Standard SB1: Students will analyze the nature of the relationships between structures and functions in living cells.			
Element C: Identify the function of the four major macromolecules of life **Element B:** Explain how enzymes function as catalysts	Biochemistry	Chapter 2	3 weeks
Element A: Explain the role of cell organelles for both prokaryotic and eukaryotic cells, including the cell membrane, in maintaining homeostasis and cell reproduction	Cell Structure and Function;	Chapters 3, 4 and 5	3 weeks

Element D: Explain the impact of water on life processes (osmosis, diffusion)	Reproduction		
Standard SB2: Analyze how biological traits are passed on to successive generations.			
Element A: distinguish between DNA and RNA **Element B:** explain the role of DNA in storing and transmitting cellular information c. use Mendel's laws to explain the role of meiosis in reproductive variability **Element E:** compare the advantages of sexual and asexual reproduction in different situations.	DNA, RNA and Heredity	Chapters 6, 7 and 8	4 weeks
Element D: Describe the relationship between changes in DNA and potential appearance of new traits **Element F:** Examine the use of DNA in forensics, medicine, and agriculture	Genetics	Chapter 9	2 weeks

Grade Determination: Fulton County Grading Scale is applied for the grade determination in this course. Six categories of tasks will be given as assessment.

A = 90-100
B = 80-89
C = 70-79
F = below 70

Major Unit Tests/Assessment	35%
Quiz/Microtheme	10%
Homework/Classwork	10%
Laboratory	25%
Final Exam	15%
Literature Review	5%

Tests and Quizzes: A written test is given at the completion of a major unit (outlined above). Tests include information from *class notes*, textbook readings, handouts, labs, and demonstrations. Quizzes are given in the middle of a multi-chapter unit; quizzes may take the form of a microtheme. The microtheme is a timed writing assessment aimed at improving critical writing skills. Test and quiz make-up will be according to Fulton County, Northview policy (See handbook, below). Students are required to read and understand the concepts covered in each chapter and discussed in class. **BE PREPARED** for tests as the sum of the test grade counts 35% of the student's total grade this semester. A comprehensive final will be given at the end of the first semester and will comprise 15% of the student's final average for Fall semester. A Georgia DOE standardized End-of-Course Test (EOCT) will be administered in early May; as the Second semester final exam (15%).

Laboratory: Laboratory activities will be required approximately once per week. You will be responsible for performing the lab in class and preparing the required report.

Lab Expectations

1. You may be assigned a lab partner(s) with whom you will work in each lab. Working together in an appropriate, cooperative manner is a requirement determined in your lab grade.
2. Cleaning your lab space is a requirement when you have completed the lab activity, regardless of the bell.
3. All lab drawings must be in **PENCIL** and labeled with magnification power, name, and appropriate structures.
4. Lab write-ups will follow a standard format. Guidelines will be given in an additional handout.
5. For safety purposes, students are required to wear safety equipment at the appropriate times (lab goggles, aprons, etc.) Students should mind the request from their science teacher on lab days when long pants and closed toed shoes are required for lab activities.

At any time a lab assessment/practical may be given entirely or partially as a major assessment (test).

Homework: Homework is given on a regular basis. The purpose of homework is to familiarize students with the information in the textbook chapters. It is very important to complete homework as it reinforces the work taught in class and helps to prepare the student for tests. Homework is collected and checked to be returned for the student in keep his/her notebook with class notes and handouts. Late homework is not accepted.

Make-up Work: *Absence from Class—Makeup Work is Your Responsibility*

1. On your first day back to class, you must provide proof of excused absence. Unexcused absences receive no credit.
2. It is the student's responsibility to handle scheduling of make up work. Daily assignments, such as homework, are to be made up the day following the absence. It is the student's responsibility to ask about missing assignments before and after school. (not during class!!)
3. I will be available for scheduling of make-up assessments, presentations, and labs and expect students to schedule the make up work promptly. A student who fails to appear for *scheduled* makeup work will receive a zero.
4. If a student is absent on any day before a test (including the day before the test) the student is still required to take the test on the given day. If absent on the day of the test, the test will be taken during the next class period the student is present. Exceptions will be made only at the discretion of the instructor.
5. No credit will be given for late homework or classwork. Late labs and projects, such as the literature review or projects that count as a test, will lose 20 points per day late.

Recovery: Opportunities designed to allow students to recover from a low or failing cumulative grade will be allowed when all work required to date has been completed. Additionally, the student must have demonstrated a legitimate effort to meet all course requirements, including attendance.
Students should contact the teacher concerning recovery opportunities. Teachers are expected to establish a reasonable time period for recovery work to be completed during the semester. All recovery work must be directly related to course objectives and must be completed ten school days prior to the end of the semester. Teachers will determine when and how students with extenuating circumstances may improve their grades.

Northview Recovery Procedure
Opportunities for students to recover from a low/failing *cumulative* grade will be provided when *all* work required to date has been completed and the student has demonstrated a legitimate effort to meet all course requirements. *Students who have not attempted to complete all course requirements are not eligible for recovery.*

Students must contact the teacher concerning recovery opportunities at the time his/her grade falls below 74. Recovery work must be completed within ten school days prior to the end of the semester. The nature and type of recovery assignment is given at the discretion of the teacher.

Any student requesting recovery in this course may be dropped to a lower level course.

Classroom Behavior: In order for successful learning to take place, you are expected to behave in a manner that will not disrupt the class. You are required to follow all the classroom rules and to respect the consequences when you do not. Students will:

1. be responsible for one's own property and behavior.
2. observe and follow rules stated in the student handbook
3. bring required materials to class daily.
4. be on time for class. **Tardy** is defined as "not in your seat when the final bell rings" (Please see your student handbook for the school's tardy policy.)
5. turn in work on time. LATE HOMEWORK IS NOT ACCEPTED.
6. refrain from eating, drinking, chewing any substance; defacing desks, tables, walls, floors, posters, etc; using electronic devices; throwing objects, or any behaviors that result in interference with learning. *No sleeping in class.*
7. refrain from touching any equipment unless instructed to do so by the teacher.
8. be expected to remain in class the entire period; please take care of restroom breaks before you come to class. Absolutely no one is allowed to leave the room the first or last ten minutes of class.
9. read, understand, sign and follow the Safety Contract.

Failure to follow classroom behavior policy may result in a private detention, phone call of your parents, and/or a trip to the appropriate administrator.

General: All work is due at the beginning of class on the date that it is due. Unless following the make-up work procedure, students will receive a **20% penalty per day** for any late work submitted. Cheating of any nature **will not be tolerated**. There is a difference between working with a partner and copying another student's work. You may be assigned a lab partner(s) with whom you will work in an appropriate, cooperative manner.

Honor Code Violation: As explained in the student handbook, cheating is defined as "the giving or receiving, in any form, information relating to a gradable experience." Violations of the honor code will result in a zero for the assignment, plus an honor code violation form placed in the student's disciplinary file. Read the handbook carefully to fully understand what constitutes a violation.

Upon teacher request, students may be required to email essays, research papers, or other written work to turnitin.com. The website checks the submission for plagiarism, provides a receipt for the student to give to the teacher, and reports to the teacher that the student's work was not copied from any source. Students will be trained on the use of turnitin.com in the first week of school. Students who do not have email access at home may use the computers in the media center.

Students who receive an honor code violation are not eligible for recovery.

Technology Code of Ethics: According to the Fulton County Schools policy; "Students shall not alter or attempt to alter school or private property including technology hardware and software." This agreement includes:

1. changing desktop settings or control panels on computers
2. removing or damaging mouse tracking balls, keyboard keys, cables, connectors, network jacks, or any other technological hardware.
3. modifying computer software
4. damaging computer disk, CD-ROMs or other media.

Students may not use classroom computers without direct teacher supervision and permission.

Parent Connect: All parents may access student grades at any time electronically using parent connect. Please visit the school website www.northviewhigh.com and go to parent information to register for Parent Connect. A few days after you register you may come by the school office to receive your password and begin accessing student grades and attendance.