

Biology 1 Honors

Biology 1 Honors is an introductory laboratory-based course designed to familiarize the student with the major concepts of biological science in depth: the cell; molecular basis of heredity; biological evolution; interdependence of organisms; matter, energy, and organization in living systems. This course provides numerous opportunities for students to develop science process skills, critical thinking, and an appreciation for the nature of science through critical thinking, and an appreciation for the nature of science through inquiry-based learning experiences.

Course Goals / Objectives:

1. To identify basic biological concepts as they relate to the structure, function, and change within living organisms.
2. To relate basic biological concepts as they apply to everyday living and the environment.
3. To refine laboratory, cooperative skills and problem-solving techniques using The Scientific Method.
4. To develop a scientific understanding and curiosity about environmental interactions in order to develop an appropriate set of values about the world.
5. To develop a sense of responsibility that leads to increased self-esteem, motivation, and cooperation, and a desire for knowledge.

Other Course Information:

Prerequisite: minimum grade of 85 in Science 8 Advanced and Algebra 1 (grade 8); must take Algebra 2 Honors

Credit: One science credit toward a SC High School Diploma.

Course Outline / Topics:

- Intro to Science Skills, Lab safety and Inquiry
- Intro to Biochemistry
- Cells and Cell Chemistry, Mitosis and Meiosis
- DNA, Proteins and Genetics
- Evolution and Taxonomy
- Ecology and Interrelationships
- Metabolic Pathways

Text / Other Required Materials / Resources:

- Textbook: *Modern Biology*, (Holt, Rinehart and Winston) 2006
- Three-ring binder with paper or spiral notebook
- Pencils or pens

Instructional Procedures:

Inquiry-based lessons, hands-on activities, laboratory activities, demonstrations, models, lecture, class discussions, video presentations, computer-based research, student conducted activities, guest speakers, and student presentations.

Grading System:

Warm-ups / test prep:	5%
Homework / Class work:	10%
Tests/Projects:	40%
Quizzes:	15%
Labs:	30%

Semester Final Average:

*The average of both nine weeks grades X 0.8 plus the grade on the Final Exam (EOC) X 0.2 equals the final numerical grade for the course. **The final exam (EOC) grade is 20% of your course grade.***

Opportunities for Extra Help:

Campus-wide tutoring is available mornings in designated rooms. Check schedule for specific days. Freshman Academy tutoring is available after school. Times/dates will be announced and posted. Individual teachers offer tutoring during the school day (before school, after school, lunch). Schedule individually. SAT workshops and HSAP tutoring is available during the school year. Times/dates will be announced and posted.

Attendance / Administrative Procedures:

Students are required to make up missed work due to an absence within seven days of returning to school (see student handbook). Assignments can be found at the Assign-A-Day link on the Rock Hill High website.

Expectations for Student Preparation, Performance, and Participation:

- Students should possess organizational, math, and inquiry skills.
- Each student must perform to their maximum potential by being in class on time, bringing proper materials to class, participating in all class activities, completing all class work and homework assignments, and attending tutoring sessions if extra help is needed.

Instructor: Mr. Wally Blankenship
School email: jblanken@rhmail.org
Webpage: <http://www.classhelp.info/Biology/Honors.htm> BOOKMARK!
RHHS page: <http://rh.rock-hill.k12.sc.us/facultywebsites/wblankenship.aspx>

Grading Scale:
○ A = 93 – 100%
○ B = 85 – 92%
○ C = 77 – 84%
○ D = 70 – 76%
○ F = 69% and below (<i>Failing – No Credit</i>)

Participation: Participation is everything! If I see that you are paying attention, trying your best, and getting involved in what we are doing, I will do everything I can to see that you succeed. Get involved every day and I can guarantee you will do well in my class. Stay focused and follow instructions.

Notebook: To succeed in this course you will need to keep a 3-ring binder / notebook. This should store any handouts you get in class, lab notes, and daily lecture notes. KEEP EVERYTHING! All assessments are based largely on notes taken during class. Some assessments (tests or quizzes) may allow you to use your notes. As you progress in your education and careers, taking good notes becomes extremely valuable to you. Assessment may come **at any time**, so come to class prepared.

Late Work: **You will lose credit for an assignment turned in late.** Do not let lateness rob you of an otherwise good grade. Homework grades are usually hit the hardest with this error. Good planning has never been the cause of late work. See your Student Handbook for turning in late work.

Absences/Tardiness: You know the rules. If you miss six days of class, you get no credit for this course (state law). **Don't miss class, period!** I have no power to reverse this rule, and students (including those who earned an "A") can fail because of absences. Do not be late for class. This can lead to referrals.

Classroom Procedures:

- Each day, please enter the classroom, take your seat, and begin working on the warm-up assignment.
- If you need assistance for any reason, raise your hand and wait to be called on.
- Respect the property in this classroom. Respect the individuals' rights in this classroom to learn to the best of their ability. Respect yourself.
- You are expected to come to class prepared. Have something to write with, your notebook, homework, and anything else expected of you for that day.
- At the end of class, please put your chairs back, place your trash in the recycle box or trash can, and replace any equipment used.
- Homework is on the front board and online. Turn homework in to your class' turn-in drawer (on my desk).

Safety: You will be instructed how to operate in a safe manner in this lab setting. You are expected to follow any and all directions, written or verbal, pertaining to the preservation and safety of property, others' health and safety, and your health and safety. Neglecting to do this can result in disciplinary action as well as injury or destruction of property, which you may be held legally liable for.

Honesty: Cheating and plagiarism are unacceptable. Bad things will happen to you if I find you plagiarizing/cheating.

Cell Phones: Are a NO NO. Referral is automatic. If you use one in class, I will take the phone and perform cruel experiments on it. Your parent may get the phone that Friday, or at the end of the school year.

Consequences:

Refer to the student manual for disciplinary actions for non-compliance to the school rules.

Honors Biology I - Course Outline
Blankenship – Spring 2012

Unit	Title	Allotted Time	Subunits
1	Introduction to Biology	5 days	<ul style="list-style-type: none"> • Classroom procedures • Lab Safety • Equipment • Microscopy • Inquiry
2	Chemistry of Life (Biochemistry / Organic Chemistry)	7 days	<ul style="list-style-type: none"> • Atoms • Molecules • Bonding • pH • Catalysts
3	Cells	14 days	<ul style="list-style-type: none"> • Cell theory • Organelles • Membranes/ Transport • Cell Cycle/ Mitosis/ Meiosis • Prokaryotes/Eukaryotes
4	Cell Energy	10 days	<ul style="list-style-type: none"> • Photosynthesis • Respiration • ATP
5	Heredity	20 days	<ul style="list-style-type: none"> • DNA/ RNA structure and function • Protein Synthesis (Transcription/ Translation) • Genes/ Chromosomes • Mendelian Genetics/ Inheritance • Mutations
6	Evolution	14 days	<ul style="list-style-type: none"> • Natural Selection • Species Diversity/ Variability • Evidences/ Data use • Phylogenetics
7	Ecology	16 days	<ul style="list-style-type: none"> • Interrelationships among organisms • Limiting factors of populations • Succession • Ecosystem maintenance <p>Human influence on cycles</p>
	Review/ Exam	4 days	