

Biology 1 CP

Biology 1 is a laboratory-based science course designed to familiarized the student with the major concepts of biological evolution; interdependence of organisms; matter, energy, and organization in living systems; the cell; and molecular basis of heredity. This course provides numerous opportunities for students to develop science process skills, 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 identify and relate specified earth science concepts to biological concepts.
4. To refine laboratory, cooperative skills and problem-solving techniques using The Scientific Method.
5. To develop a scientific understanding and curiosity about environmental interactions in order to develop an appropriate set of values about the world.
6. To develop a sense of responsibility that leads to increased self-esteem, motivation, and cooperation, and a desire for knowledge.

Other Course Information:

Prerequisite: Physical Science

Credit: One science credit toward a SC High School Diploma

Course Outline / Topics:

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

Text / Other Required Materials / Resources:

- Textbook: *Biology*, McDougal Littell (2008)
- 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.

9-weeks Grading System:

Warm-ups / test prep:	5%
Homework / Class work:	15%
Labs and reports:	25%
Tests and projects:	40%
Quizzes:	15%

Semester Final Average:

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

Opportunities for Extra Help:

Campus-wide tutoring is available from 7:20 until 8:20 a.m. in A113. 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 (best): jblanken@rock-hill.k12.sc.us

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 notebook. This should include any handouts you get in class, lab notes, and daily lecture notes. KEEP EVERYTHING! All assessments are based 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 Student Handbook for turning in late work.

Absences/Tardiness: You know the rules. If you miss six days of any class, you get no credit. **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. We'll discuss how to accomplish this in class.
- You are expected to come to class prepared. Have something to write with, your notebook and textbook, 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, replace any equipment used, and **wait for me to dismiss you**.
- Homework is on the front board and online. Turn homework into 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. If you use one in class, I may take the phone and perform cruel experiments on it. You may get the remains back in two weeks, or at the end of the school year.

Consequences:

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

CP Biology I - Course Outline
Blankenship – Fall 2011

Unit	Title	Approx. Allotted Time	Subunits
1	Introduction to Biology	5 days	<ul style="list-style-type: none"> • Classroom procedures • Lab Safety • Equipment • Microscopy • Inquiry (and throughout semester)
7	Ecology	16 days	<ul style="list-style-type: none"> • Interrelationships among organisms • Limiting factors of populations • Succession • Ecosystem maintenance • Human influence on cycles
2	Chemistry of Life (Biochemistry or Organic Chemistry)	6 days	<ul style="list-style-type: none"> • Atoms • Molecules • Bonding • pH • Catalysts
3	Cells	15 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
	Evolution	14 days	<ul style="list-style-type: none"> • Natural Selection • Species Diversity/ Variability • Evidences/ Data use • Phylogenetics
	Review/ Exam	4 days	