

FIELD BIOLOGY: COURSE DIRECTIVES

INSTRUCTOR: Linda Strieby

ROOM #: 306 (office next to 306) **E-MAIL:** lstriby@bluevalleyk12.org

COURSE DESCRIPTION:

Field Biology focuses on studying aspects of Biology in the natural setting. It will involve several different areas of study such as botany, zoology, entomology, ornithology, and especially ecology. We will be outdoors quite often. It is therefore necessary to dress appropriately for the outdoors.

GOALS:

All students will...

- understand the basic concepts and principles of Biology as they relate to our local environment.
- develop the reading skills, vocabulary, critical thinking skills, and study habits essential for independent progress in science.
- utilize various scientific techniques and technological skills in the study of science.
- apply scientific principles in decision-making regarding your personal well-being, your future, and the future of society.
- understand the nature and limitations of scientific knowledge.

CLASSROOM PROCEDURES:

1. **RULES:** The most important rule is to do what is right and treat each other with respect. Every class member is expected to display respect, responsibility, self-control, and effort.
2. **FOOD/DRINK:** Food will not be permitted in class. Drinks will be permitted, but you must clean up your own spills.
3. **TARDIES:** You are expected to be in the room and heading toward your seat when the bell rings. The **BVNW tardy policy will be strictly followed.**
4. **ACADEMIC DISHONESTY:** Cheating is understood by all to be unacceptable. All instances of cheating will be dealt with according to the Student/Parent Handbook. Be careful not to plagiarize. Give full credit to others for their material and their ideas.
5. **QUIZZES/EXAMS:** We will have a brief quiz about once every week. We will have a written exam once every nine weeks. The questions will include multiple-choice, matching, true/false, short answer, and essay. Quizzes and tests will cover the procedures we learned, the basic biology we covered, and the results of our fieldwork. Make-up exams will be given during Husky Halftime. It is your responsibility to arrange a make-up exam time.
6. **LATE WORK:** All projects and assignments will have due dates. **However, late work will be accepted for full credit up until the assignment is handed back in class. After this, no late work will be accepted.** Keep in mind that this time period will vary from one assignment to the next.
7. **MAKE-UP WORK:** You will be allowed to make-up class work only if you have an excused absence, thus it is extremely important for you to follow the procedures for excusing an absence through the office. You will have two days to complete make-up work for every day you are absent.
8. **OFFICE HOURS:** I am available both before and after school, 7:00-7:30 am and 3:00-3:30 pm.
9. **Electronics and Cell phones: Please see BVNW cell phone policy.**
10. **FIELD BIOLOGY NOTEBOOK:** Throughout the year you will use your Field Biology notebook (a 3-ring binder with pockets and loose-leaf paper) to record observations, take notes from activities, lectures, and class discussions, complete various journal entries, and reflect on what you have learned. Therefore, it is very important that you bring it with you to class every day.

GRADING PROCEDURES:

1. All grading will be based on the district standard of 90%=A, 80%=B, 70%=C, 60%=D.
2. Grades will be calculated on a cumulative basis (total points).
3. The semester grade will be calculated as follows: course work - 80%, semester exam – 20%.

OUT-OF-CLASS LONG-TERM ASSIGNMENTS:

1. **INSECT COLLECTION** – Each student is required to complete an insect collection consisting of 10 insects or more. This collection should include insects from at least 7 different orders. The insects should be properly pinned on a suitable surface. A small piece of Styrofoam works well. Cardboard would also be acceptable. Each insect should be accompanied by a label stating the Order, Family, and the scientific name. A log should be turned in with each collection stating the date each insect was captured, the time of the capture, and the location where the insect was captured. Each student must prepare a dichotomous key, identifying each of the insects in the collection. **(60 Points – Due September 17th)**
2. **MONARCH WATCH Project** – We will be participating in the Monarch Watch Project sponsored by KU. This involves tagging Monarch butterflies during the migration back to Mexico as well as planting milkweed to help sustain the population. Tagging takes place on Saturday Sept 22 in Lawrence. (Maximum **15 EXTRA CREDIT points (3pts per butterfly-Due October 12)**
3. **ARBORETUM PROJECT** – Visit the Overland Park Arboretum at 179th & Antioch. Use the signs dispersed along the trails to examine your choice of 10 trees and/or vines. From the sign you can obtain the common name and the species name for each plant. Record this information. Make some “copy” of a representative leaf from each plant you identify. This can be in the form of a picture, a video, a tracing, a rubbing, a drawing, or other illustration of the leaf. **DO NOT PICK THE LEAVES.** Finally, step back and look at the tree, its canopy shape, bark texture, bark color, etc. In one paragraph, describe how to distinguish this tree without using its leaves. **(50 Points – Due October 30)**
4. **ANIMAL OBSERVATION** – Choose a *wild* animal to observe (not your cat or dog). Choose an animal that moves around or stimulate behavior in some natural way like putting food onto a spider’s web. Spend at least one hour observing the animal. This time need not be continuous but can be broken down into segments at least 15 minutes long. Record and describe everything you observe. Do not judge what you see but record all observations. When you are finished, take plenty of time to look over your notes for patterns and unexpected behaviors. Write a brief essay (one side of one paper) describing these patterns and behaviors and hypothesizing what role they might play in the life of the organism. When you turn in the essay, turn in your field notes attached to it. **(30 Points – Due November 26)**
5. **SERVICE PROJECT***** Students will complete an institutionally organized, biologically related service project totaling three (3) hours. All ecologically sensitive work will count. Ideas might include working at the KC zoo on their Saturday morning workdays; helping at the OP Arboretum; volunteering at Deanna Rose Children’s Farmstead, helping in the development of the BV Wilderness Science Center; or other service projects that you clear with me. You must turn in documentation of your participation with your supervisor’s signature along with a 1-paragraph written summary of your participation. **(40 Points – Due December 10)**

*** If students cannot complete the 3 hours of community service, this project may be replaced with a report and class presentation on an environmentally related current events topic. The report and presentation will also be due by December 10. Please see the instructor for details.
6. **Endangered Species Project:** Students will choose an endangered species and produce a research paper and presentation. All project work will completed during class time the last two weeks of the semester. **(40 points/paper and 30 points/presentation)**