



**KENOSHA UNIFIED SCHOOL DISTRICT NO. 1
CURRICULUM AND INSTRUCTIONAL SERVICES**

**COURSE SYLLABUS FOR BIOLOGY HONORS
(421021 & 421022)**

Number of Credits: 1 **Locations:** Bradford, Harborside, Hillcrest, Tremper

Prerequisites: Teacher Permission

Course Description

Biology Honors is the study of how living things function, interact with their environment, and change over time. This course will examine all domains of life. Required lab work is included in this class that will reinforce the essential concepts of structure and function of representative organisms. Biology Honors puts a strong emphasis on in depth critical thinking and independent work. This course prepares the student for courses like Human Anatomy & Physiology and AP Biology.

Course Standards

Standard A: Science Connections
Standard B: Nature of Science
Standard C: Science Inquiry
Standard F: Life and Environmental Science
Standard G: Science Applications
Standard H: Science in Social and Personal Perspectives

Explanations of standards and most essential benchmarks may be viewed at: www.kusd.edu.

Lifelong Learning Standards

- Knowledgeable person
- Effective communicator
- Quality producer
- Complex thinker
- Self-directed learner
- Contributing citizen

Lifelong learning benchmarks may be viewed at: www.kusd.edu.

Course Outline

I. Foundations of Biology

- a. Lab Safety *Safety Contract
- b. Microscope
- c. Scientific Method

II. Cell Biology

- a. Prokaryotic/Eukaryotic
- b. Cell Structure and Function
- c. Membranes and Transport
- d. Cell Cycle, Mitosis/Meiosis
- e. Cellular Respiration
- f. Photosynthesis

III. Genetics and Biotechnology

- a. Mendelian Genetics

- b. DNA Structure and Function (Replication)
 - c. RNA, Protein Synthesis (Transcription and Translation)
 - d. Biotechnology and bioethics
- IV. Evolution**
- a. Natural Selection
 - b. Adaptation
 - c. Evidence for Evolution
- V. Classification**
- a. Kingdoms
 - b. Biodiversity
- VI. Ecology**
- a. Food chains, webs and energy pyramids
 - b. Ecosystems/cycles
 - c. Species interactions, relationships
 - d. Population dynamics
- VII. Microbiology**
- a. Prokaryotic cell anatomy
 - b. Bacteria/Biology and classification
 - c. Virus/Structure, replication, infection
 - d. Protists & Fungi/Classification, life cycles and ecological significance
- VIII. Structure and Function of Plants**
- a. Tissues and Structures
 - b. Life Cycles
 - c. Classifications
- IX. Structure and Function of Animals**
- a. Differences in Invertebrates and Vertebrates
 - b. Systems

Board-Approved Instructional Materials

Postlethwait, John H. and Janet L. Hopson (2009). *Modern Biology*. Holt, Reinhart, and Winston.

Resources for Parents

www.go.hrw.com

Methods of Assessment

Final exams should be cumulative in nature, emphasizing the most essential benchmarks for the course. Results of the final exam represent 20 percent of the final grade, but this single measure *may not* drop a student's grade by more than one letter grade. In courses that rely heavily on a major project, performance exhibition, etc., the project should be divided into stages or components and each of those should be graded separately, providing students with frequent and specific feedback.

Board-Approved Grading Scale

Excerpts taken from School Board Rule 6452

GRADING SCALE

A+=98-100 percent

B+=86-89 percent

C+=76-79 percent

D+=66-69 percent

A=93-97 percent

B=83-85 percent

C=73-75 percent

D=63-65 percent

A-=90-92 percent

B-=80-82 percent

C-=70-72 percent

D-=60-62 percent

F=0-59 percent

MAKE-UP WORK

Students submitting work up to ten school days late without prior approval may receive up to two grades lower on the work than they would have received if the work had been submitted on time (i.e., B+ lowered to a D+). Student work submitted after ten school days without prior approval shall not be accepted for credit and shall be recorded with a score of zero.

Upon returning to school after an absence, a student has the responsibility within the number of days equal to the length of the absence or suspension to meet with the teacher to develop a plan for making up missed work, quizzes, and examinations. A truant student has the responsibility on the first day he or she returns to the course/class to meet with the teacher to develop a plan for making up missed work, quizzes, and examinations. Lower grades may not be given for late work due to excused absences, suspension, or truancy unless the work is submitted later than agreed upon deadlines.

See Rule 6452 in its entirety at: www.kusd.edu.