KENOSHA UNIFIED SCHOOL DISTRICT NO. 1
CURRICULUM AND INSTRUCTIONAL SERVICES

COURSE SYLLABUS FOR BIOLOGY (421011 & 421012)

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

Prerequisites: None

Course Description:
Biology is a lab-orientated class in which students explore how living things function, interact with their environment, and change over time. This course will study the domains of life through an examination of the anatomy, physiology, and ecological significance of representative organisms. Note: This course is not open to students who have successfully completed Biology-Honors.

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

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

Course Outline
I. Science Skills
   a. Graphing
   b. Lab Safety *Safety Contract
   c. Microscope
   d. Scientific Method
   e. Measurement skills Metric system

II. Introduction to Biology
   a. Characteristics of Life
   b. Macromolecules
   c. 7 themes (reproduction- sexual and asexual…)

III. The Cell
    a. Prokaryotic/Eukaryotic
    b. Plant and animal cell differences
    c. Cell Structure and Function
        i. Cellular Respiration
        ii. Photosynthesis
    d. Membranes and transport

IV. Cell growth and division
    a. Cell Cycle (growth, Mitosis, and Cytokinesis)
    b. Meiosis

V. DNA and RNA
    a. Structure and Function
    b. Replication
    c. Transcription
    d. Translation

VI. Heredity
    a. Mendelian Genetics
    b. Biotechnology (Genetic engineering, cloning)
    c. Bioethics

VII. Evolution
    a. Natural Selection
    b. Genetic variation
    c. Adaptation
    d. Evidence

VIII. Classification
    a. Kingdoms of life
    b. Binomial nomenclature
    c. Phylogeny
    d. Dichotomous keys

IX. Ecology
    a. Food chains, food webs, and energy pyramids
    b. Ecosystems
    c. Relationships between organisms (mutualism, parasitism)
    d. Biodiversity
    e. Behavior and response

X. Viruses and Bacteria

XI. Protists

XII. Structure and Function of Plants
   a. Tissues and Structures
   b. Life Cycles: germination, pollination, vegetative propagation
   c. Angiosperms and gymnosperms
   d. Photosynthesis

XIII. Structure and Function of Animals
   a. Differences in Invertebrates and Vertebrates
   b. Systems

Board-Approved Instructional Materials
DeSalle, Rob and Michael R. Heithaus (2008). *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.