**Sophomore Biology Syllabus**:

**Course Description:**

Biology is the study of living things. Thoughout the school year we will be developing our laboratory skills, critical thinking, scientific process skills and the fundamental principles of Biology. Students will learn about cell structure and function, genetics and heredity, evolution, ecology and the human body.

**Course Objectives/ Goals:**

* Students will be able to use the scientific method to perform and design an experiment and do scientific inquiry.
* Improve their critical thinking skills.
* Understand the basic principles of biology and how it relates to the students and the world around them.

**Course Outline:**

**I.** **Scientific Method**-

**a**. Review the scientific method and create experiments

b. Discussing what qualities make a good experiment to evaluate experiments.

c. How to write a proper lab report.

**II. Living or Non-living?**

**III. Cells**

a. Building blocks of life

b. Form vs. function

c. Different types of cells, what makes them different?

d. Cell respiration vs Photosynthesis

d. Cell reproduction- Mitosis and meiosis

**IV. Genetics**

a. Reproduction- Meiosis and Mitosis; what happens when things go wrong?

b. Inheritance and punnett squares

c. Important scientists and their contributions

**V. Human Body**

a. Form vs Function (body systems and what they do)

**VI. Evolution**

a. What is Evolution and how does it work?

b. Evidence to support Evolution

c. Scientists and their contributions.

**VII. Ecology**

a. What makes up an Ecosystem?

b. Environmental concerns, what can we do about it?