**Course Objectives:** BIOL 1110 focuses on the study of biology, biological chemistry, cell structure and function, cell reproduction, genetics and inheritance. This course provides a basic background and understanding in the principles regarding the study of life.

**Learning Outcomes:** Issues in today’s world require scientific information and a scientific approach to informed decision making. Therefore, the goal of the Natural Science requirement is to guide students toward becoming scientifically literate. This scientific understanding gained in these courses enhances students’ ability to define and solve problems, reason with an open mind, think critically and creatively, suspend judgment, and make decisions that may have local or global significance.

*Students will demonstrate the ability to:*

1. Conduct an experiment, collect and analyze data, and interpret results in a laboratory setting
2. Analyze, evaluate, and test a scientific hypothesis

* See lab syllabus

1. Use basic scientific language and processes, and be able to distinguish between scientific and non-scientific explanations
2. Identify unifying principles and repeatable patterns in nature, the values of natural diversity, and apply them to problems or issues of a scientific nature.

* Identify and discuss the basic chemical principles upon which all life is based
* Identify and discuss the major structural and functional components of different types of cells
* Identify and discuss the major biochemical processes of cells
* Explain and differentiate between the basic mechanisms by which cells reproduce
* Describe how heritable traits are passed from one generation to the next

1. Analyze and discuss the impact of scientific discovery on human thought and behavior.

* Explain how an understanding of fundamental biological processes (i.e. metabolism, photosynthesis, cell reproduction, and heredity) enables one to make better informed decisions in “everyday” life
* Criticize scientific “arguments” relating to current issues (i.e. stem cell research, cloning, cancer, gene therapy, forensics, etc.)