**COURSE: BIOL XXXX- Introduction to Biology II, non-science majors**

**COURSE DESCRIPTION:** BIOL 1020 is designed to cover broad biological principles for non-science majors. The topics covered demonstrate fundamentals of evolution and biological diversity (classification). Other topics demonstrate fundamentals of community biology, ecosystem biology, population biology and conservation biology.

## LEARNING OUTCOMES:

1. Explain the concepts of evolution and natural selection and common misconceptions.
2. List the major mechanisms of evolution.
3. Discuss the speciation process and several species concepts.
4. Discuss the basics of systematics, cladistics and phylogenetics.
5. Provide a basic understanding of different types of organisms and the current taxonomic classification system.
6. Describe the characteristics of bacteria and archaea and understand the basics of prokaryotic classification.
7. Provide an understanding of protist, plant, fungal, and animal characteristics.
8. Provide an understanding of the taxonomic classification of protists, plants, fungi and animals and the evolutionary basis for this classification.
9. Discuss characteristics of earth’s ecosystems, including energy flow and biogeochemical cycles.
10. Differentiate between the major aquatic and terrestrial biomes of the earth.
11. Describe the basics of population biology, including demographics, dynamics, growth and a discussion of human populations.
12. Discuss conservation biology, including threats to biodiversity and how to preserve biodiversity.