LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

SPECIAL NOTE:
This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):

Please check with the LCC bookstore http://www.labette.edu/bookstore for the required texts for this class.

COURSE NUMBER: BIOL 126

COURSE TITLE: GENERAL ZOOLOGY

SEMESTER CREDIT HOUR: 5

DEPARTMENT: Biology

DIVISION: General Education

PLACEMENT TEST LEVEL: General Education Course Placement

PREREQUISITE: None

COURSE DESCRIPTION:
This course covers fundamental principles and processes of animal life including relationships, morphology, life history, ecology, genetics, and evolution. Laboratory exercises accompany lectures.

1. Discuss the major evolutionary principles and animal diversity.

- Be able to explain the fundamentals of microevolution and macroevolution.
- Be able to explain the evolutionary relationships and history of the major animal phyla.
- Be able to explain what adaptations evolved to allow the transition to life on land for animals.
- Be able to describe the evolution of behaviors.
- Be able to compare and contrast learned and innate behavior.

2. Classify the major animals (common, economically or medically important or significant) into their phyla of Kingdom Animalia.

- Be able to explain how organisms are classified on the basis of evolutionary relationships.
- Be able to compare and contrast the major animal phyla with respect to structure and function of the major organ systems.

- Be able to describe the developmental changes in echinoderms and vertebrates.

3. Compare and contrast the various disciplines encompassed by the field of zoology.

- Be able to explain the impact humans have on the environment and other species.
- Be able to explain basic principles of ecology.
- Be able to diagram the major biogeochemical cycles: carbon cycle, nitrogen cycle, phosphorus cycle, and water cycle.
- Be able to list the major biomes.
- Be able to describe the general dynamics of ecosystems and the impact of invasive species.

4. Apply the basic principles of genetics.

- Be able to explain population genetics, including Hardy-Weinberg Equilibrium.
- Be able to define these terms: *autosomal dominant, autosomal recessive, sex-linked, homozygous, heterozygous, phenotype, genotype, allele, polygenic inheritance, gene linkage, and incomplete dominance.*
- Be able to create a pedigree.
- Be able to demonstrate the results of various crosses: monohybrid, dihybrid, heterozygous dominant with homozygous dominant or heterozygous recessive, or a test-cross to determine an unknown genotype.

5. Describe the life history of major animals representing each phylum.

- Be able to describe the life history of parasites, including those having a major impact on humans: tapeworms, flukes, leeches, protozoans.
- Be able to describe the impact pollution has on the life history of various species: salmon and sea turtles for example.
- Be able to describe the impact of arthropods on health and economics of humans.
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6. Demonstrate knowledge of the scientific method.

- Use the correct format of a scientific article to report your findings.
- Be able to define the specialized terminology of zoology.

Student Learning Outcomes and Competencies for this course align with course outcomes developed through the Kansas Core Outcomes Project.