Laboratory work emphasizing morphology, taxonomy, phylogeny, physiology, and evolution of the major animal groups with special consideration given to the phyla and classes of animals. Four laboratory hours each week are required.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:
I. The Microscope and the Cell
II. Mitosis and Meiosis
III. Genetics and Molecular Biology of Cells
IV. Embryology and Developmental Biology
V. Comparative Morphology of Adaptive Structures
VI. Comparative Physiology of Adaptive Systems
VII. Comparative Systematics
VIII. Survey of Major Animal Phyla, including for each:
EXPECTED LEARNER OUTCOMES:
A. The learner will have an understanding of methods of survey and examination in the area of Animal Biology.
B. The learner will have an understanding of comparative evolutionary bases both within the Animal Kingdom and with other kingdoms and domains.

COURSE COMPETENCIES:
The learner will have an understanding of methods of survey and examination in the area of Animal Biology.

The learner will have an understanding of comparative evolutionary bases both within the Animal Kingdom and with other kingdoms and domains.

1. The learner will be able to microscopically examine, identify and describe animal cells and tissues.
2. The learner will be able to define and describe functions and processes of mitosis and meiosis in animals.
3. The learner will describe methods of examining animal chromosomes and other genetic information and testing equipment.
4. The learner will be able to identify various animal tissues.
5. The learner will be able to describe embryological development of animals.
6. The learner will be able to identify and describe various adaptive structures of animals in various phyla and their classes.
7. The learner will be able to identify, describe and compare various adaptive physiologies in various phyla and their classes.
8. The learner will be able to use and interpret various systematic methods of investigating animal phylogenies.
9. The learner will be able to identify and describe morphological characteristics of animal phyla and their included classes.
10. The learner will be able to identify and describe taxonomic characteristics of animal phyla and their included classes.
11. The learner will compare phylogenetic relationships between and within animal phyla and their included classes.
12. The learner will be able to compare the adaptive physiologies of the animal phyla and their included classes.
13. The learner will be able to describe the ecological parameters which support the various animal phyla and their included classes.
14. The learner will be able to describe and discuss the evolutionary relationships of the various animal phyla and their included classes.
15. The learner will describe and discuss the biogeographical components of the various animal phyla and their included classes.
16. The learner will be able to discuss the adaptive behaviors found in the various animal phyla and their included classes.

ASSESSMENT OF LEARNER OUTCOMES:
Student progress is evaluated by means that include, but are not limited to, exams, written assignments, and class participation.

**SPECIAL NOTES:**
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

Kansas City Kansas Community College is committed to an appreciation of diversity with respect for the differences among the diverse groups comprising our students, faculty, and staff that is free of bigotry and discrimination. Kansas City Kansas Community College is committed to providing a multicultural education and environment that reflects and respects diversity and that seeks to increase understanding.

Kansas City Kansas Community College offers equal educational opportunity to all students as well as serving as an equal opportunity employer for all personnel. Various laws, including Title IX of the Educational Amendments of 1972, require the college’s policy on non-discrimination be administered without regard to race, color, age, sex, religion, national origin, physical handicap, or veteran status and that such policy be made known.

Kansas City Kansas Community College complies with the Americans with Disabilities Act. If you need accommodations due to a documented disability, please contact the Director of the Academic Resource Center, in room 3354 or call at: 913-288-7670.