BIO 130
INTRODUCTORY ZOOLOGY

COURSE DESCRIPTION:

Prerequisites: BIO 111
Corequisites: None

This course provides an introduction to the classification, relationships, structure, and function of major animal phyla. Emphasis is on levels of organization, reproduction and development, comparative systems, and a survey of selected phyla. Upon completion, students should be able to demonstrate comprehension of animal form and function, including comparative systems of selected groups. Laboratory exercises include microscope observations and dissections to reinforce topics discussed in lecture. *This course has been approved to satisfy the Comprehensive Articulation Agreement for the general education core requirement in natural sciences/mathematics.* Course Hours Per Week: Class, 3. Lab, 3. Semester Hours Credit, 4.

LEARNING OUTCOMES:

After completion of this course, the student will demonstrate basic knowledge in each of the following:

a. Biological evolution.
b. Unicellular organisms - protozoa.
c. Multicellular animals - porifera, pseudocoelomates, acoelomates, eucoelomates.
d. Protostomes and deuterostomes.
e. Structures and characteristics of the phyla: Porifera, Platyhelminthes, Nematoda, Rotifera, Mollusca, Annelida, Arthropoda, Echinodermata, and Chordata.

OUTLINE OF INSTRUCTION:

I. Classification
   A. Binomial nomenclature
   B. Architectural patterns of animals

II. Evolution of animal diversity
   A. Darwin's theory of evolution
   B. Darwin's theory of natural selection
   C. Evolution of new species

III. Protozoa
   A. Phylum Sarcomastigophora
   B. Phylum Apicomplexa
   C. Phylum Ciliphora

IV. Phylum Porifera
- A. Class Calcarea
- B. Class Hexactinellida
- C. Class Demospongiae
- D. Class Sclerospongiae

V. Phylum Cnidaria
- A. Class Hydrozoa
- B. Class Scyphozoa
- C. Class Cubozoa
- D. Class Anthozoa

VI. Phylum Platyhelminthes
- A. Class Turbellaria
- B. Class Mongenea
- C. Class Trematoda
- D. Class Cestoda

VII. Pseudocoelomates
- A. Phylum Nematoda
- B. Phylum Rotifera

VIII. Phylum Mollusca
- A. Class Polyplacophora
- B. Class Gastropoda
- C. Class Bivalvia
- D. Class Cephalopoda

IX. Phylum Annelida
- A. Class Polychaeta
- B. Class Oligochaeta
- C. Class Hirudinea

X. Phylum Arthropoda
- A. Subphylum Trilobita
- B. Subphylum Chelicerata
- C. Subphylum Crustacea
- D. Subphylum Uniramia

XI. Phylum Echinodermata
- A. Class Crinoidea
- B. Class Asteroidea
- C. Class Ophiuroidea
- D. Class Echinoidea
- E. Class Holothuroidea

XII. Phylum Chordata
- A. Subphylum Urochordata
- B. Subphylum Cephalochordata
- C. Subphylum Vertebrata
  1) Class Chondrichythes
  2) Class Osteichythes
  3) Class Amphibia
  4) Class Reptilia
  5) Class Aves
  6) Class Mammalia

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by the Instructor/Discipline Chair.

STATEMENT FOR STUDENTS WITH DISABILITIES:

Students who require academic accommodations due to any physical, psychological, or learning disability are encouraged to request assistance from a disability services counselor within the first two weeks of class. Likewise, students who potentially require emergency medical attention due to any chronic health condition are encouraged to disclose this information to a disability services counselor within the first two weeks of class. Counselors can be contacted by calling 686-3652 or by visiting the Student Development Office in the Phail Wynn Jr. Student Services Center, room 1309.