

ZOOLOGY COURSE OUTLINE

- I. Characteristics, Classification and Phylogeny
 - A. Patterns of Organization
 - B. Evolutionary Relationships
 - C. Classification
 - 1. Hierarchy
 - 2. Kingdoms
 - 3. Nomenclature
- II. Protists
 - A. Physiology
 - B. Phylum Sarcomastigophora
 - 1. Class Phytomastigophora
 - 2. Class Zoomastigophora
 - C. Phylum Ciliophora
- III. Phylum Porifera
 - A. General Characteristics
 - B. Physiology
- IV. Phylum Cnidaria and Ctenophora
 - A. Class Hydrozoa
 - B. Class Anthozoa
 - C. Class Scyphozoa
- V. Triploblastic Acoelomates
 - A. Phylum Platyhelminthes
 - 1. Class Turbellaria
 - 2. Class Trematoda
- VI. Aschelminths
 - A. Phylum Nematoda
 - 1. Parasites
- VII. Molluscs
 - A. Class Gastropoda
 - 1. Torsion
 - 2. Locomotion
 - B. Class Bivalvia
 - 1. Filter feeding
 - C. Class Cephalopoda
 - 1. Locomotion
- VIII. Annelids
 - A. Class Polychaeta
 - 1. Gross anatomy
 - B. Class Oligochaeta
 - 1. Gross anatomy
 - C. Class Hirudinea
 - 1. Gross anatomy
- IX. Arthropods
 - A. Metamorphosis

- B. Exoskeleton
- C. Subphylum Crustacea
- D. Subphylum Uniramia
- E. Subphylum Chelicerata
 - 1. Class Merostomata
 - 2. Class Arachnida
- X. Echinoderms
 - A. Class Asteroidea
 - 1. Regeneration
 - B. Class Echinoidea
- XI. Phylum Chordata
- XII. Fishes
 - A. Superclass Agnatha
 - B. Superclass Gnathostomata
 - 1. Class Chondrichthyes
 - 2. Class Osteichthyes
 - C. Buoyancy regulation
 - D. Osmoregulation
- XIII. Amphibians
 - A. Order Caudata
 - B. Order Anura
 - 1. Temperature regulation
 - 2. Osmoregulation
 - 3. Metamorphosis
- XIV. Reptiles
 - A. Order Testudines
 - B. Order Squamata
 - C. Order Crocodylia
 - D. General Characteristics
 - 1. Sensory
 - 2. Thermoregulation
- XV. Birds
 - A. Flight
 - B. Gas exchange
 - C. Excretion
 - D. Navigation during migration
- XVI. Mammals
 - A. Subclass Prototheria
 - B. Subclass Theria
 - 1. Infraclass Metatheria
 - 2. Infraclass Eutheria
 - C. Pouch vs. placenta
 - D. Ecology
 - E. Identification
 - F. Taxonomy