BIOL 211 Zoology: Animals as Organisms

Credit Hours: 4

Scheduled hours per week

Lecture: 3
Lab: 2
Other: 0

Catalog Course Description: Anatomical and physiological study of invertebrate and vertebrate body systems and processes including taxonomy and evolution.

Pre-requisites: BIOL 101/103; 102/104

Co-requisites: None

Course Learning Outcomes:

- Demonstrate proper care and use of the microscope.
- Describe the morphological design of a typical animal cell.
- Describe and identify the four types of animal tissues.
- Describe the mitotic cell cycle.
- Classify animals based upon morphological & physiological relationships.
- Compare selected animal reproductive cycles.
- Recognize the origin, evolution & structural development of the 10 animal organ systems.
- Describe selected parasite-host relationships.
- Compare & contrast invertebrate & vertebrate animal body system development through selected specimen dissections.
- Observe morphological & behavioral characteristics of selected live protists, cnidarians & flatworms.

Topics to be studied:

- Describe the structure of atoms and molecules and how they interact in biological systems.
- Microscopy
- Cell morphology & tissues.
- Mitosis & Meiosis.
- Development/Embryology
- Protists
- Multicellular Invertebrates
- Chordates

Relationship of Course to Program or Discipline Learning Outcomes:

Relationship of Course to Science Learning Outcomes:	
Students will learn the process and reasoning behind the Scientific Method and be able to conduct experiments that meet the requirements of the model.	X
Students exhibit the basic safety-related rules and regulations of working in the lab.	X
Students be able to recount the basic safety tenants associated with a specific scientific discipline.	X
Students will become proficient at Science Writing.	X

Students will recognize and identify the applications of their specific discipline in the 'real world.'	X
Students will accurately recount important milestones in the history of scientific inquiry in their discipline.	
5/3/2016	

Relationship of Course to General Education Learning Outcomes:	
Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements.	
Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions.	X
Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts.	
Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication.	
Human Inquiry & the Past Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.	
The Arts & Creativity Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.	
5/3/2016	

Special requirements of the course:

None

Additional information:

None

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