

9/13/2022 DATE

 REQUIRED COURSE  
 ELECTIVE COURSE

 MSD DIVISION  
 NEW COURSE  
 REVISION

## Lake Land College

### Course Information Form

<b>COURSE NUMBER:</b>		BIO-116		<b>TITLE: (30 Characters Max)</b>		General Zoology																					
<b>SEM CR HRS:</b>		4		<b>Lecture:</b>		3		<b>Lab:</b>		2		<b>ECH:</b>		5													
<b>Course Level:</b>		<input checked="" type="checkbox"/> Gen Ed / IAI <input type="checkbox"/> Baccalaureate /Non-IAI		<input type="checkbox"/> Career/Technical <input type="checkbox"/> Dev Ed/ Not in Degree Audit		<b>Clinical Practicum:</b>		0		<b>SOE/ Internship:</b>		0		<b>SOE ECH:</b>		0											
<b>COURSE PCS #</b>		11 - 26.0301		<b>IAI Code</b>		L1910L & BIO 910		<b>Contact Hours (Minutes Per Week)</b>																			
<b>Repeatable (Y/N):</b>		N		<b>Pass/Fail (Y/N):</b>		N		<b>Variable Credit (Y/N):</b>		N		<b>Min:</b>				<b>Max:</b>				<b>16 Wks</b>		250		<b>8 wks</b>		500	
<b>Prerequisites:</b>		BIO-100 - Biological Science I																									
<b>Catalog Description: (40 Word Limit)</b>		An introduction to the basic concepts of animal life and its diversity. Including: taxonomy, cellular and organismic structure and function, development and economic importance.																									

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Non-Clinical Internship/ SOE
Introduction	1			
Taxonomy, Protozoan Phyla, Phylum Porifera	6	2		
Phylum Cnidaria, Phylum Platyhelminthes, Phylum Nematoda	6	4		
Phylum Mollusca, Phylum Annelida, Phylum Arthropoda	6	4		
Phylum Echinodermata, Phylum Chordata	4	2		
Organization, Integument, Skeletal System	4	4		
Endocrine System, Digestive System	4	2		
Muscle System, Circulatory System, Excretory System	6	4		
Nervous System, Respiratory System	4	2		
Reproductive System, Embryology	4	4		
Review of Practical		2		
<b>TOTAL</b>	<b>45</b>	<b>30</b>	<b>0</b>	<b>0</b>

EVALUATION			
<b>QUIZZES</b> <input checked="" type="checkbox"/>	<b>EXAMS</b> <input checked="" type="checkbox"/>	<b>ORAL PRES</b> <input type="checkbox"/>	<b>PAPERS</b> <input type="checkbox"/>
<b>LAB WORK</b> <input checked="" type="checkbox"/>	<b>PROJECTS</b> <input type="checkbox"/>	<b>COMP FINAL</b> <input checked="" type="checkbox"/>	<b>OTHER</b> <input type="checkbox"/>

COURSE MATERIALS	
<b>TITLE:</b>	Integrated Principles of Zoology
<b>AUTHOR:</b>	Hickman, Roberts, Larson, Lanson
<b>PUBLISHER:</b>	McGraw/Hill
<b>VOLUME/EDITION/URL:</b>	16th
<b>COPYRIGHT DATE:</b>	2014

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Introduction	1	Recognize the importance of the animal sciences in the past as well as today and in the future.
Taxonomy, Kingdom Protista, Phylum Porifera	8	Develop an understanding of the binomial system of nomenclature, classification and taxonomy. Compare the various protozoan classes, giving examples and economic importance of each. List the characteristics of the Porifera, including structure, habitat, and economic importance. Describe physiology and reproduction in sponges.
Phylum Mollusca, Phylum Annelida, Phylum Arthropoda	10	List the general characteristics of the mollusks, annelids, and arthropods. Recognize examples of each of the phyla and be

		familiar with their structures. Explain life cycles and economic importance of all representative organisms.
Phylum Cnidaria, Phylum Platyhelminthes, Phylum Nematoda	10	List the general characteristics of the cnidarians, flatworms, and roundworms and recognize examples of each. Be familiar with structures, life cycles and economic importance of all representative organisms.
Phylum Echinodermata, Phylum Chordata	6	List the general characteristics of the echinoderms and chordates and recognize examples of both phyla. Be familiar with structures, life cycles and economic importance of all representative organisms.
Organization, Integument, and Skeletal Systems	8	Name the different tissue types and explain their location and function. Differentiate between an endoskeleton and exoskeleton, emphasizing protection, support, and locomotion. Describe the macroscopic and microscopic structure of bone and cartilage, and know the bones that make up the axial and appendicular skeletons of the human body.
Endocrine System, Digestive System	6	Understand the mechanisms of hormone action. Compare hormones of invertebrates and vertebrates. List the vertebrate endocrine glands and their hormones. Relate hormones to their effect on the pituitary gland, hypothalamus, metabolism, digestion, and reproduction. Describe the organization of the alimentary canal and the process of digestion. Recognize nutritional requirements and understand how food intake is regulated. Know the common disorders of the endocrine and digestive systems.
Muscle System, Circulatory System, Excretory System	10	Recognize the different vertebrate muscle tissues. Describe a motor unit and the mechanism of muscle contraction. Name the functions and parts of the circulatory and lymphatic systems. List the types and functions of the blood vessels and blood cells. Know the makeup of mammalian blood and understand the clotting mechanism. Identify vertebrate organs associated with elimination of waste products. Explain how urine is formed & excreted. Relate the common diseases associated with the muscular circulatory, and excretory systems.
Nervous System, Respiratory System	6	Compare the nervous systems of the animal phyla. Recognize the structures and functions of the neuron. Identify the different types of neurons and nerves.

		List the components and actions of the central, peripheral, and autonomic nervous systems. Compare respiration in the various animal phyla. List the regions and functions of the respiratory system in humans.
		Define the terms associated with lung capacity. State the factors that effect the rate of respiration. Describe the common disorders of the nervous and respiratory systems.
Reproductive System, Embryology	8	Describe the differences in asexual and sexual reproduction. Relate the structures and functions of both the male and female reproductive systems. Describe the formation of male and female reproductive cells. Summarize the various reproductive patterns and breeding cycles. Describe fertilization cleavage, early development, formation of germ layers, and the mechanisms of embryo development. Understand mammalian development of systems and organs, pregnancy, and birth.
Review of Practical	2	
	75	

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	<ul style="list-style-type: none"> <li>Recognize the importance of the animal sciences in the past as well as today and in the future.</li> </ul>
	<ul style="list-style-type: none"> <li>Demonstrate an understanding of the binomial system of nomenclature, classification and taxonomy.</li> </ul>
	<ul style="list-style-type: none"> <li>List the characteristics of the major animal phyla, including structure, habitat, and economic importance. Recognize examples of each.</li> <li>Describe the structures, organization and physiological processes of the 11 mammalian body systems. Recognize common disorders of these systems.</li> </ul>
	<ul style="list-style-type: none"> <li>Explain mammalian embryology and development of systems.</li> </ul>

\* Course Outcomes will be used in the Assessment Software for Outcomes Assessment. Limit to 3 - 5.