

National Education Policy-2020

SIDDHARTHA UNIVERSITY, KAPILVASTU SYLLABUS: MINOR COURSE: ZOOLOGY

ORDINANCE

1. This syllabus shall come with effect from academic session 2021-22
2. This paper shall be a part of the Minor Optional Course of University Bachelor's Degree course.
3. Any student of B.A./B.Sc. Classes may opt this paper as Minor Course in Zoology
4. The students opting this paper shall be required to pass it only in any of the semester of his or her 1st year or 2nd Year of Bachelor's course. But the option for this paper shall not be available in 3rd year of the Bachelor's degree course.
5. This paper shall carry 4 credits. The paper shall be divided in four units and each unit shall carry one credit or 25% of the maximum marks.
6. A minimum of 60 lectures in a single semester shall be required for teaching this paper.

SCHEME OF EVALUATION

1. This Paper shall carry the Maximum marks of 100 and the duration of the examination shall be three hours.
2. Standard of Passing: minimum marks required to pass the examination shall be 40.
3. The students who fail in this paper at any semester examination shall be allowed to reappear in the semester examinations of the subsequent academic session in accordance with the general policy and examination ordinances of the University

<i>Animal Science I</i>		<i>Credits :4</i>
Programme/Class: / MINOR COURSE: Zoology	Semester: First/Second	No. of Lectures (60 hrs.)
UNIT-1 Cell structure and function	<ul style="list-style-type: none">• Introduction of cell• Basic knowledge of cell theory• Prokaryotic and eukaryotic cell• Structure and functions of cell organelles• Brief knowledge of cell cycle	15
UNIT-2 Animal Diversity	General characteristics of animal kingdom and their classification Difference between non-chordates and chordates Classification of non chordates up to the phylum Diagnostic features of following phyla with examples : <ol style="list-style-type: none">1. Protozoa2. Porifera3. Cnidaria4. Platyhelminthes5. Nematelminthes6. Annelida	15

	<p>7. Arthropoda 8. Mollusca 9. Echinodermata</p> <p>Classification of chordata up to the class Diagnostic features of following classes with examples :</p> <p>Fish, Amphibia, Reptile, Bird and Mammal</p>	
<p>UNIT-3 Human Physiology</p>	<ul style="list-style-type: none"> • Elementary knowledge of digestive system, respiratory system, circulatory system, Nervous system, Excretory system, and reproductive system • Basic concept of immune system; antigen, antibody , primary and secondary immune response, vaccine and vaccination • Sense organs and their function: eye and ear 	15
<p>UNIT-4 Basics of Ecology</p>	<ul style="list-style-type: none"> • Introduction of Ecology • Components of ecosystem- Abiotic and biotic factors • Food chain and food web • Energy flow in an ecosystem • Ecological pyramids (Energy, biomass and number) • Classification of Ecosystem • Pollution: Air, Water and Noise • Global warming effects and acid rain 	15

<i>Animal Science II</i>		<i>Credits :4</i>
Programme/Class: / MINOR COURSE: Zoology	Semester: Third/Fourth	No. of Lectures (60 hrs.)
UNIT-1 Evolutionary Biology	<ul style="list-style-type: none"> • Origin of life • Theory of Evolution Lamarckism and Darwinism • Modern synthetic theory of evolution • Evidences of evolution from : <ol style="list-style-type: none"> 1. Connecting link 2. Vestigial organs 3. Living fossils 	15
UNIT-2 Basics of Biochemistry	<ul style="list-style-type: none"> • Elementary knowledge of carbohydrates, lipids, proteins and nucleic acids (DNA & RNA) • Vitamins: Types , sources, functions and diseases • Basics of endocrinology : Brief knowledge of endocrine glands and their hormones • Definition, characteristics and biological role of enzymes 	15
UNIT-3 Economic Zoology	<ul style="list-style-type: none"> • Basic knowledge of Apiculture, Sericulture, Lac culture and Aquaculture • Basics of Poultry farming and Dairy farming 	15
UNIT-4 Applied Zoology	<ul style="list-style-type: none"> • Human diseases: Common bacterial diseases (Tuberculosis, Pneumonia, Botulism, Cholera) • Viral diseases (AIDS ,COVID -19 and Dengue Fever) • Protozoan diseases (Malaria, Amoebic dysentery and Pyorrhoea) • Basic concept of Cancer 	15

Susmita

Dr. Susmita Srivastav (Convenor)

BOS Zoology