

**LESSON PLAN (ODD SEMESTER)**  
**DEPARTMENT OF ZOOLOGY**  
**B.Sc. Life Science I (Semester 1) Session 2025-26**  
**Discipline specific Course (DSC) Animal Diversity-I C24ZOO101T**

**Dr. Pooja Jakhar (Assistant Professor)**

14 <sup>th</sup> July to Aug.2025	Phylum Protozoa: General characters and classification up to class level, Type study of Plasmodium. Phylum Porifera: General characters and classification up to class level, Type study of Sycon. Phylum Coelentrata: General characters and classification up to class level.
September2025	, Type Study of Obelia. Phylum Platyhelminthes and Aschelminthes: General characters and classification up to class level, Type study of Liver Fluke (Fasciola hepatica). Phylum Annelida: General characters and classification up to class level, Type study of Earthworm (Pheretima posthuma). Phylum Arthropoda: General characters and classification up to class level, Type study of Cockroach (Periplaneta americana).  <b>Assignment –I Test-I</b>
October2024(19 <sup>th</sup> oct. to 26 <sup>th</sup> oct.25 Diwali Break)	Phylum Mollusca: General characters and classification up to class level, Type study of Pila. Phylum Echinodermata: General characters and classification up to class level, Type study of Sea star (Asterias). Phylum Hemichordata: General characters of Hemichordates.  <b>Assignment –II Test-II</b>
November2025	<b>Revision</b>
22th Nov.to22Dec.2025	<b>Examination</b>

12/11/2025  
**H.O.D. ZOOLOGY**

Dr. Pooja Jakhar  
 (Assistant Professor)  
 DEPARTMENT OF ZOOLOGY

PRINCIPAL

13/09/25.

## LESSON PLAN (ODD SEMESTER)

### DEPARTMENT OF ZOOLOGY

#### Discipline Specific Course

Paper: Biomolecules and Mammalian Physiology C24ZOO301T

B.Sc. II Life Sciences (Semester 3rd) Session 2025-26

Dr. Pooja Jakhar (Assistant Professor)

14th July to August 2025	Introduction, classification, structure, function and general properties of proteins. Nomenclature, classification and mechanisms of enzyme action; factors affecting enzyme activity, inhibition of enzymes. Vitamins and Minerals. Transport through bio-membranes (Active and Passive), osmotic pressure, hydrogen ion concentration and buffers. Reproduction: Spermatogenesis, Capacitation of spermatozoa, oogenesis, ovulation, formation of corpus luteum, oestrous-anoestrous cycle, Menstrual cycle in human, fertilization, implantation and gestation, parturition. Introduction, classification, structure, function and general properties of carbohydrates and lipids. Digestion of proteins, carbohydrates, lipids.
September 2025	Muscles: ultra-structure of skeletal muscle, neuromuscular junction. Bio-chemical and physical events during muscle contraction, single muscle twitch, tetanus, muscle fatigue, muscle tone, oxygen debt., Cori's cycle, single unit smooth muscles, their physical and functional properties. Neural Integration: Nature, origin and propagation of nerve impulse along with medullated & non-medullated nerve fiber, conduction of nerve impulse across synapse, synaptic delay and synaptic fatigue, Neurotransmitter. Functions of different endocrine glands, hormonal disorders.  <b>Assignment-1 Test-1</b>
October 2025 (18 <sup>th</sup> Oct. to 26 <sup>th</sup> Oct. 25 Diwali Break)	Circulation: Origin, conduction and regulation of heart beat; cardiac cycle. Composition and functions of blood & lymph; Mechanism of coagulation of blood, coagulation factors; anticoagulants, haemopoiesis. Respiration: Exchange of respiratory gases, transport of gases, lung air volumes, oxygen dissociation curve of haemoglobin, Bohr's effect, Hamburger's phenomenon (Chloride shift), Myoglobin. Excretion: Patterns of excretory products viz. Ammoniotelic, ureotelic, uricotelic, ornithine cycle; Urine formation, composition of Urine, counter-current mechanism of urine formation, osmoregulation, micturition.
November 2025	Revision
December 2025	Examination

*Pooja*  
13/09/2025  
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Dr. Pooja Jakhar

(ASSISTANT PROFESSOR)

DEPARTMENT OF ZOOLOGY

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**LESSION PLAN (ODD SEMESTER)**

**DEPARTMENT OF ZOOLOGY**

**Multidisciplinary Course [MDC]**

**Paper: Basics of Zoology-III**

**B.Com. II (Semester- 3rd) Session 2025-26**

**Dr. Pooja Jakhar (Assistant Professor)**

14 <sup>th</sup> July to Aug.2025	<b>Unit 1:</b> Humans Skeleton and bones; Joints, cartilage and ligaments, interaction between skeletal muscles and nerves. ABO and RH system in humans, methods of determination, importance and dangers of blood transfusion Human cell and chromosomes: Cell as unit of life, morphology and functional elements of human chromosome Sex Determination: Definition, different types and scope.
September2025	<b>Unit -2</b> Respiration in humans: Anatomy and physiology of respiration, factors affecting change of gases and diffusing capacity. Introduction to Dental Formula, types and development of tooth. Darwinism, species and population: Concept of evolution, theory of Darwinism, Neo-Darwinism, Genetic drift, Hardy Weinberg Law Human  <b>Assignment –I Test-I</b>
October2024 (19 <sup>th</sup> Oct. to 26 <sup>th</sup> Oct.25 Diwali Break)	<b>Unit -2</b> Evolution: Origin and evolution, adaptive evolution.  <b>Revision</b>
November2025	<b>Revision</b>
22th Nov.to 22Dec.2025	<b>Examination</b>

*12/09/2025*  
**H.O.D. ZOOLOGY**

*Dr. Pooja Jakhar*

*(ASSISTANT PROFESSOR)*

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**LESSON PLAN (ODD SEMESTER)**

**DEPARTMENT OF ZOOLOGY**

**B.Sc. III Medical (Semester 5<sup>th</sup>) Session 2025-26**

**Dr. Pooja Jakhar (Assistant Professor)**

**Paper Name: ZOO 501 L. Applied Zoology I & ZOO 502 L. Applied Zoology II**

<b>14th July to August 2025</b>	Host, Definitive host, Intermediate host, Parasitism, Symbiosis, Commensalism, Reservoir, Zoonosis Transmission, Prevention and control of diseases: Tuberculosis, typhoid, Biology, Control and damage caused by <i>Helicoverpa armigera</i> , <i>Pyrilla perpusilla</i> and <i>Papilio demoleus</i> , Biology, Control and damage caused by <i>Callosobruchus chinensis</i> , <i>Sitophilus oryzae</i> and <i>Tribolium castaneum</i> , Principles of poultry breeding, Management of breeding stock and broilers, Processing and preservation of eggs, Genetic improvements in aquaculture industry
<b>September 2025</b>	Brief account of <i>Rickettsia prowazekii</i> , <i>Borrelia recurrentis</i> and <i>Treponema pallidum</i> , Life history and pathogenicity of <i>Entamoeba histolytica</i> , <i>Plasmodium vivax</i> , Life history and pathogenicity <i>Trypanosoma gambiense</i> , Life history and pathogenicity of <i>Ancylostoma duodenale</i> and <i>Wuchereria bancrofti</i> , Induced breeding and transportation of fish seed  <b>Assignment -1, Test-1</b>
<b>October 2025 (19<sup>th</sup> to 26<sup>th</sup> Oct. 25 Diwali Break)</b>	Medical importance and control of <i>Pediculus humanus corporis</i> , Medical importance and control of <i>Anopheles</i> , <i>Culex</i> , Medical importance and control of <i>Aedes</i> , <i>Xenopsylla cheopis</i> , Preservation and artificial insemination in cattle; Induction of early puberty and synchronization of estrus in cattle, Preservation and artificial insemination in cattle; Induction of early puberty and synchronization of estrus in cattle  <b>Assignment -2, Test-2</b>
<b>1<sup>st</sup> to 21<sup>st</sup> November 2025</b>	<b>Revision</b>
<b>22<sup>nd</sup> Nov. 2025</b>	<b>Examination</b>

*13/09/2025*  
**H.O.D. ZOOLOGY**

*Dr. Pooja Jakhar*

*(Assistant Professor)*

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