

Lesson Plan (2025-26)

Name of Assistant Professor: Dr. Pooja Jakhar


Class: B.Sc. 1- Life Science 2nd Sem.

Subject: Zoology, Name of paper – Animal Diversity-II (DSC) & Animal Diversity-II Lab

Paper code: C24ZOO201T & C24ZOO201P

Jan 2026 & May 2026

	Topic Covered
Week 1(06-01-26 to10-01-26)	Salient features of Chordates, General characters of Protochordates and Urochordates, (Pyrosoma, Doliolum and Amphioxus, Lab)
Week 2(12-01-26 to 17-01-26)	Pisces- General characters and classification up to order level, Scales & Fins Poison Apparatus and Biting mechanism of snakes, Key for identification of Poisonous and Non-poisonous snakes
Week 3 (19-01-26 to24-01-26)	Type study of <i>Labeo</i> , (<i>Petromyzon</i> and <i>ammocoetus larva</i> , Lab)
Week 4 (26-01-26 to 31-01-26)	Amphibia- General Characters and classification upto order level Type study of <i>Rana tigrana</i> , Specimen of Chondrichthyes (Lab)
Week 5 (02-02-26 to 07-02-26)	Type study of <i>Rana tigrana</i> , Specimen of Chondrichthyes (Lab)
Week 6 (09-02-26 to14-02-26)	Parental care in Amphibians, Specimen of Osteichthyes (Lab)
Week 7(16-02-26 to21-02-26)	Assignment 1 & Test 1
Week 8(23-02-26 to28-02-26) 02/03/26 to 08/03/26 Holi Holidays	Reptiles- General Characters and classification upto order level, Specimen of Osteichthyes (Lab)
Week 9 (09-03-26 to14-03-26)	Type study of Hemidactylus, Specimen of Amphibia (Lab)
Week 10 (16-03-26 to21-03-26)	Aves- General Characters and classification upto order level Type study of <i>Columba livia</i> , Specimen of Reptilia (Lab)
Week 11 (23-03-26 to 28-03-26)	Type study of <i>Columba livia</i> , Specimen of Aves (Lab)
Week 12 (30-03-26 to04-04-26.)	Mammalia- General Characters and classification upto order level Type study of <i>Rattus rattus</i> , Specimen of Mammalia (Lab)
Week 13 (06-04-26 to11-04-26.)	Type study of <i>Rattus rattus</i>
Week 14 (13-04-26 to18-04-26)	Type study of <i>Rattus rattus</i>
Week 15 (20-04-26 to25-04-26)	Revision
Week 16 (27-04-26 to 04-05-26)	Revision

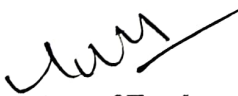

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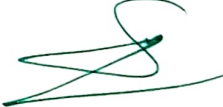

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(Dr. Pooja Jakhar)

Lesson Plan (2025-26)
Name of Assistant Professor: Dr. Pooja Jakhar
Class: B.Sc. I- Life Science 2nd Sem.
Subject: Zoology, Name of paper – Fish Farming (SEC) & Fish Farming Lab
Paper code: C24SEC231T & C24SEC231P

Jan 2026 To May 2026	
	Topic Covered
Week 1(06-01-26 to10-01-26)	General Introduction –Definition of Fish, Fisheries, Aquaculture and Pisciculture
Week 2(12-01-26 to 17-01-26)	Significance of fish farming, Production, Utilization and Demand of Fish in India, General description of Capture and Culture Fisheries
Week 3 (19-01-26 to24-01-26)	Culture fisheries and its types, Criteria for the selection of fish species for farming important culturabl;e Fishes in India,
Week 4 (26-01-26 to 31-01-26)	Identification of commercially important fishes,Basics of Induced breeding in fishes, Idenbtification of Important Fishes (Lab)
Week 5 (02-02-26 to 07-02-26)	Pond Fish Culture-Types, design and construction of fish farming ponds
Week 6 (09-02-26 to14-02-26)	Maintenance of fish culture ponds, Visit to Fish Farm (Lab)
Week 7(16-02-26 to21-02-26)	Water quality and soil quality, Weeds of fish farming ponds and their Control, Analysis of physical and chemical properties of water (Salinity, DO, Chlorides) Lab
Week 8(23-02-26 to28-02-26) 02/03/26 to08/03/26 Holi Holidays	Nutrition of cultured fishes, By products of fish farming industry, Analysis of physical and chemical properties of water (temperature, pH, Turbidity) Lab
Week 9 (09-03-26 to14-03-26)	Methods of Fish harvesting and marketing, Study of aquatic Weeds (Lab)
Week 10 (16-03-26 to21-03-26)	Common Fish Diseases and their control
Week 11 (23-03-26 to 28-03-26)	Ecology of Fish Pond Ecosystem
Week 12 (30-03-26 to04-04-26.)	Study of crafts and gears (Lab)
Week 13 (06-04-26 to11-04-26.)	Test and Assignment
Week 14 (13-04-26 to18-04-26)	Revision
Week 15 (20-04-26 to25-04-26)	Revision
Week 16 (27-04-26 to04-05-26)	Revision


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Name of Assistant Professor: Dr. Pooja Jakhar

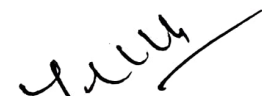
Class: B.Sc. III- Medical 6th Sem.

Subject: Zoology, Name of paper – Insect, Vector and Diseases I & Insect, Vector and Diseases II (DSC)

Paper code: ZOO604L, ZOO605L, ZOO606P (Lab)

Jan 2026 To May 2026

	Topic Covered
Week 1(06-01-26 to10-01-26)	General features of Insects, Morphological features, Head-Eyes, Types of Antennae, Mouth parts w.r.t. feeding habits
Week 2(12-01-26 to 17-01-26)	Brief Introduction of Carrier and Vectors, Reservoirs, Host-vector relationship, Study of different kinds of mouth parts of insects (Lab)
Week 3 (19-01-26 to24-01-26)	Vectorial capacity, Adaptations as vectors, Host specificity Study of insect vectors through permanent slides (Lab)
Week 4 (26-01-26 to 31-01-26)	Classification of insects upto orders, Detailed features of orders with insects as vectors-Dipetra, Siphonaptera Study of insect vectors through permanent slides (Lab)
Week 5 (02-02-26 to 07-02-26)	Detailed features of orders with insects as vectors-Siphunculata and Hemiptera Study of insect vectors through permanent slides (Lab)
Week 6 (09-02-26 to14-02-26)	Human louse- Head, Body and Pubic louse as important insect vectors Study of different diseases transmitted by insect vectors (Lab)
Week 7(16-02-26 to21-02-26)	Study of louse-borne diseases- Typhus fever, Relapsing fever, Trench fever, vagabond disease, Assignment 1 & Test 1
Week 8(23-02-26 to28-02-26) 02/03/26 to08/03/26 Holi Holidays	Phthiriasis, Control of Human louse, Mosquitoes, Sand fly, Houseflies Study of different diseases transmitted by insect vectors (Lab)
Week 9 (09-03-26 to14-03-26)	Chikungunya, Viral encephalitis and Filariasis, Control of mosquitoes, Study of mosquito-borne diseases- Malaria, Dengue Study of different diseases transmitted by insect vectors (Lab)
Week 10 (16-03-26 to21-03-26)	Bugs as insect vectors, blood-sucking bugs, Chagas disease, Bed bug as mechanical vectors, control and preventive measures
Week 11 (23-03-26 to 28-03-26)	Fleas as important insect vectors, Host-specificity, Study of Flea-borne diseases- Plague, Typhus fever and control of fleas, Assignment 2 & Test 2
Week 12 (30-03-26 to04-04-26.)	Study of sand fly-borne diseases-Visceral Leishmaniasis, Cutaneous Leishmaniasis
Week 13 (06-04-26 to11-04-26.)	Phlebotomus fever, control of sandfly, Study of house fly as insect vector, Myiasis, control of Housefly
Week 14 (13-04-26 to18-04-26)	Revision
Week 15 (20-04-26 to25-04-26)	Revision
Week 16 (27-04-26 to04-05-26)	Revision


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Lesson Plan (2025-26)
Name of Assistant Professor: Dr. Karuna Bamel
Class: B.Com. IInd (IVth Sem.) & B.A. IInd (IVth Sem.)
Name of paper: Environmental Studies-II (VAC)
Paper Code: C24VAC301T

February, 2026 to May, 2026	
Week 1 (10-02-26 to 14-02-26)	Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems. Forest, Water, Mineral, Food, Energy, and Land Resources.
Week 2 (16-02-26 to 21-02-26)	Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.
Week 3 (23-02-26 to 28-02-26) 02/03/26 to 08/03/26 Holi Holidays	Environmental Pollution: Definition, Causes, effects and control measures of air, water, soil, marine, noise, thermal and nuclear pollution.
Week 4 (09-03-26 to 14-03-26)	Assignment I and Test I
Week 5 (16-03-26 to 21-03-26)	Solid waste management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution, Pollution case studies.
Week 6 (23-03-26 to 28-03-26)	Social Issues and the Environment, Environmental Protection Act; Air (Prevention and Control of Pollution) Act; Water (Prevention and Control of Pollution) Act
Week 7 (30-03-26 to 4-04-26)	Wildlife Protection Act; Forest Conservation Act; Issues involved in enforcement of environmental legislation, Human Population and the Environment: Population growth, variation among nations
Week 8 (06-04-26 to 11-04-26)	Population explosion – Family Welfare Programmes; Environment and human health; Human Rights; Value Education Assignment II and Test II
Week 9 (13-04-26 to 18-04-26)	HIV / AIDS; Women and Child Welfare; Role of Information Technology in Environment and Human Health, Case Studies
Week 10 (20-04-26 to 25-04-26)	Revision
Week 11 (27-04-26 to 04-05-26)	Revision

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Lesson Plan (2025-26)
Name of Assistant Professor: Dr. Karuna Bamel
Class: B.A. 1st year (II Sem.)
Name of paper: Environmental Studies-I (VAC)
Paper Code: C24VAC101T

February, 2026 to May, 2026	
Week 1 (10-02-26 to 14-02-26)	The multidisciplinary nature of environmental studies, Definition, scope and importance.
Week 2 (16-02-26 to 21-02-26)	Need for public awareness. Ecosystems: Structure and function. Producers, consumers and decomposers.
Week 3 (23-02-26 to 28-02-26) 02/03/26 to 08/03/26 Holi Holidays	Energy flow in the ecosystem, ecological succession.
Week 4 (09-03-26 to 14-03-26)	Assignment I and Test I
Week 5 (16-03-26 to 21-03-26)	Food chain and food web, ecological pyramids, Biodiversity and its conservation.
Week 6 (23-03-26 to 28-03-26)	Bio geographical classification of India. Value of Biodiversity. India as mega diversity nation.
Week 7 (30-03-26 to 4-04-26)	Hotspots of Biodiversity, Threats to Biodiversity,
Week 8 (06-04-26 to 11-04-26)	Conservation of Biodiversity, In-situ and Ex- situ conservation of biodiversity.
Week 9 (13-04-26 to 18-04-26)	Assignment II and Test II
Week 10 (20-04-26 to 25-04-26)	Revision
Week 11 (27-04-26 to 04-05-26)	Revision

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Lesson Plan (2025-26)

Name of Assistant Professor: Dr. Karuna Bamel

Class: B.Sc. IInd – Life Science 4th Semester

Name of paper: Cell Biology and Genetics (DSC) & Cell Biology and Genetics Lab

Paper Code: C24Z00401T & C24Z00401P

February, 2026 to May, 2026	
Week 1 (10-02-26 to 14-02-26)	General structure of animal cell, Plasma Membrane: Fluid mosaic model, various modes of transport across the membrane, active and passive transport, endocytosis and exocytosis, Prepared slides of stages of mitosis and meiosis (Lab)
Week 2 (16-02-26 to 21-02-26)	Endoplasmic reticulum and Golgi complex, Ribosomes: Types, biogenesis and role in protein synthesis, Salivary gland and polytene chromosomes of <i>Drosophila</i> (Lab)
Week 3 (23-02-26 to 28-02-26) 02/03/26 to 08/03/26 Holi Holidays	Lysosomes: Structure, enzymes and their role; polymorphism, Mitochondria: Structure, Mitochondria as semiautonomous body, biogenesis, functions of mitochondria, Temporary squash preparations of onion root tip/grasshopper testis for the study of mitosis (Lab)
Week 4 (09-03-26 to 14-03-26)	Assignment I and Test I
Week 5 (16-03-26 to 21-03-26)	Cilia and Flagella, Ultrastructure and functions of Nucleus: Nuclear membrane, nuclear lamina, nucleolus, fine structure of chromosomes, nucleosome concept and role of histones, euchromatin and heterochromatin, Blood group testing (Lab)
Week 6 (23-03-26 to 28-03-26)	Introduction and Mendel's Laws of Inheritance, Linkage and recombination: Cell Cycle, crossing-over and chiasma formation. Sex determination and its mechanism: male and female heterozygous systems, genetic balance system; role of Y-chromosome, male haploidy, cytoplasmic and environmental factors, role of hormones in sex determination. Preparation of human karyotype and ideogram (Lab)
Week 7 (30-03-26 to 4-04-26)	Sex linked inheritance: Haemophilia and colour blindness in man, eye colour in <i>Drosophila</i> , Non-disjunction of sex-chromosome in <i>Drosophila</i> , Sex-linked and sex-influenced inheritance. Extra chromosomal and cytoplasmic inheritance: Kappa particles in <i>Paramecium</i> , Shell coiling in snails, Milk factor in mice. Barr body and drum stick slide preparation (Lab).
Week 8 (06-04-26 to 11-04-26)	Multiple-allelism: Eye colour in <i>Drosophila</i> ; A, B, O blood group in man. Human genetics: Human karyotype, Chromosomal abnormalities involving autosomes and sex chromosomes, monozygotic and dizygotic twins. Assignment II and Test II
Week 9 (13-04-26 to 18-04-26)	Inborn errors of metabolism (Alkaptonuria, Phenylketonuria, Albinism, sickle-cell anaemia). Applied genetics: Genetic counselling, pre-natal diagnosis, DNA-finger printing, transgenic animals.
Week 10 (20-04-26 to 25-04-26)	Revision
Week 11 (27-04-26 to 04-05-26)	Revision


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