



E.M.GOPALAKRISHNAKONEYADAVAWOMEN'SCOLLEGE

An Autonomous Institution -Affiliated to Madurai Kamaraj University
Re-accredited(3rd Cycle)with Grade A⁺ and CGPA 3.51 by NAAC

LESSON PLAN

2024-2025

Class : I B.Sc Zoology

Sem : II

Sub. Code : 23OUZ021

Title of the Paper: Chordata

Total Hours : 75

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Taxonomy And Phylum Chordata - Chordates characteristics, Outline classification up to class level with examples. Cephalochordate - Amphioxus: External morphology, Digestive System and Excretory System only. Uro-chordata - Tadpole larva and Retrogressive metamorphosis in Ascidian, Hemichordate - Balanoglossus external morphology and Affinities of Hemichordate. Unit 2 : Pisces And Amphibians - General Characters and Classification of Fishes and Amphibians up to order level with examples -Pisces -Shark: External Morphology and Digestive System only, Migration of Fishes-	I B.Sc Zoology	19	Chalk and Talk, PPT, quiz, on the spot test	
Jan	II	Agnatha- Petromyzon -External morphology, Amphibia: General characters and classification - Rana hexadactyla -	I B.Sc Zoology	18	Chalk and Talk, PPT, quiz, on the spot	

		External Morphology and Respiratory system only, Parental Care in Amphibians Unit 3 : Reptiles - General Characters and Classification of Reptiles up to orders with examples Calotes External Morphology, Heart, Arterial and Venous system only.			test	
Feb	III	Snakes of India - Poisonous and non-poisonous snakes - Identification and biting mechanism Origin, Dominance and Decline of Mesozoic reptiles Unit 4 : Aves - General Characters and Classification of Aves up to orders with examples Columba livia -Pigeon External Morphology, Respiratory System, Symsacrum, Pectoral and Pelvic girdles only- Flightless Birds.	I B Sc Zoology	19	Chalk and Talk, PPT, quiz, on the spot test	
Mar	IV	Unit 5 : Mammals - General Characters and Classification of Mammals up to orders with examples- General Characters of Prototherians, Metatherians and Eutherians with examples Rabbit. External Morphology, Excretory system and Reproductive System only - Dentition in mammals - Adaptation of aquatic mammals	I B Sc Zoology	19	Chalk and Talk, PPT, quiz, on the spot test	


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LESSON PLAN
2024-2025

Class : I B.Sc Zoology

Sem : II

Sub. Code : 23OUZO2P

Title of the Paper: Lab in Chordata

Total Hours : 45

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Calotes: Arterial System and Venous System Shark: Placoid Scales Calotes: Arterial System and Venous System	I B.Sc Zoology	10	Demo & Hands on Training	
Jan	II	Frog: Brain Shark: Cranial nerves Frog: Tadpole Salamander: Axolotyl	I B.Sc Zoology	10	Demo & Hands on Training	
Feb	III	Prochordata: Amphioxus, Amphioxus - T.S. through pharynx, Balanoglossus, Ascidian. Agnatha: Petromyzon Pisces: Narcine, Echeneis, Hippocampus, Eel, Catla, Tilapia.	I B.Sc Zoology	9	Observation of Spotters & Slides	
Mar	IV & V	Reptilia: Poisonous Snakes: Cobra, Krait, and Viper. Non-Poisonous Snakes: Dryophis and Ptyas. Lizards - Chaameleon and	I B.Sc Zoology	16	Observation of Spotters & Slides	

		Draco Aves Pectoral and Pelvic girdle of Pigeon, Archaeopteryx Mammals Bat, Loris. Field trip compulsory					
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G. Indira Rani
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D. Palekar
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LESSON PLAN
2024-2025

Class : I B.Sc Zoology

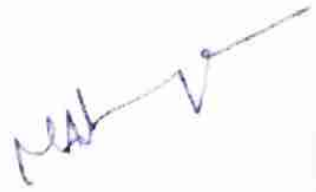
Sem : II

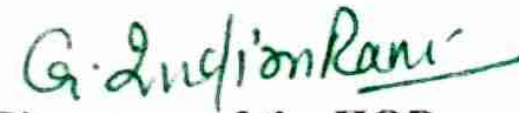
Sub. Code : 23OUZOSECN2

Title of the Paper: Basic Course in Ornithology

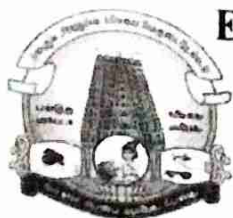
Total Hours : 30 hrs

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Introduction to Ornithology; Birds and Humans; Classification of Birds, Bird Endemism, Books written by Salim Ali. Acts related to Bird conservation, -Bird Sanctuaries.	I B.Sc Zoology	5	Chalk and Talk, PPT, quiz, on the spot test	
Jan	II	External Morphology of the Bird; Bird Lore; Structure of bird feather, Internal Structure of the Bird - Beaks and feet in Birds.	I B.Sc Zoology	6	Chalk and Talk, PPT, quiz, on the spot test	
Feb	III	Bird Behaviour: Foraging, Roosting, Vocalization, Imprinting, Feather care, Bird Intelligence, Social Behaviour, Mixed Species Flocks, Migration of Birds.	I B.Sc Zoology	6	Chalk and Talk, PPT, quiz, on the spot test	
Mar	IV & V	Breeding Biology. Differential investment of sexes; territoriality, courtship and display behaviour, nesting, eggs, incubation and	I B.Sc Zoology	13	Chalk and Talk, PPT, quiz, on the spot test	

		care of young Identification of Birds by Calls and songs Bird Watching: - Equipment for Bird Watching Studying bird populations and communities, sampling methods, Macro ecology; Threats faced by birds; Bird Conservation with case studies.					
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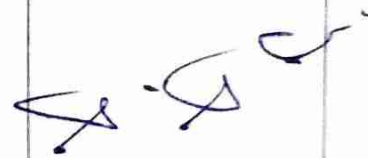
Class : I B.Sc Zoology

Sem : II

Sub. Code : 23OUZOSEC3

Title of the Paper: Basics of Marine Biology

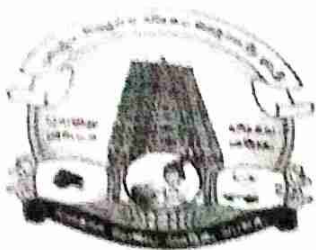
Total Hours : 30 hrs

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Marine Ecology : Marine environment- ecological factors- light, temperature, salinity, pressure; Classification of marine environment; Pelagic environment – Planktonic and Nektonic adaptations; Benthic environment - intertidal, interstitial and deep sea adaptations; Distribution and ecological role of other coastal environments - estuaries, mangroves.	I B.Sc Zoology	5	Chalk and Talk, PPT, quiz, on the spot test	
Jan	II	Physical Oceanography : Physical Properties of Seawater- density, viscosity, surface tension, conductivity and their relationship; temperature distribution in the sea - heat budget, UV radiation; El Nino/La Nina – global impact; Dynamics of the ocean-general surface circulation, Waves, Currents and Tides, Tsunami.	I B.Sc Zoology	6	Chalk and Talk, PPT, quiz, on the spot test	
Feb	III	Chemical Oceanography : Chemical composition of seawater-major and minor elements, trace elements- their importance, distribution. Chemistry of seawater constituents- concept of chlorinity and salinity - methods of measurements, nutrients - biogeochemical cycles.	I B.Sc Zoology	6	Chalk and Talk, PPT, quiz, on the spot test	

Mar	IV & V	Biological Oceanography: Sea as a biological environment- Plankton-classification -Phytoplankton and Zooplankton - methods of collection, Oxidation as carbon (as organic matter). Primary productivity - estimation and factors affecting primary productivity. Marine Pollution and Ocean Management: Ocean pollution-kinds and quantities of pollutants, toxic effects and control measures - oil spills, plastics, nuclear waste disposal in marine environment, Eutrophication. Role of National and international agencies and organizations in ocean management-FAO, UNEP, DOD, WOCE, WHOI, IOI Malta, IMO INMARSAT- IUCN, SCAR, SCOR, Marpol, Traffic. Ocean policy (India) - research and management.	III B.Sc Zoology	13	Chalk and Talk, PPT, quiz, on the spot test	 
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G. Indira Kumar
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S. N. Balakrishnan
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LESSON PLAN

2024-2025

Class : II B.Sc Zoology

Sem : IV

Sub. Code : 23OUZO41

Title of the Paper: Developmental Biology

Total Hours : 60 hrs

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Gametogenesis & Fertilization - Basic concepts of developmental biology. Structure & types of Spermatozoa, Mammalian egg - Egg membranes. types of egg - Spermatogenesis - Oogenesis. Fertilization - mechanism, theories and significance - Parthenogenesis.	II B.Sc Zoology	9	Chalk and Talk, PPT, quiz, on the spot test	
Jan	II	Blastulation & Gastrulation - Cleavage - Planes and its Patterns, Factors controlling cleavage - Fate map and its construction. Blastulation - types of blastula. Morphogenetic movements - Gastrulation of frog.	II B.Sc Zoology	12	Chalk and Talk, OHP quiz, on the spot test	

Feb	III	Organogenesis - Development of Eye and Heart in frog. Foetal membranes in chick. Development of Pronephric, Mesonephric and Metanephric Kidneys. Placentation in Mammals.	II B.Sc Zoology	9	Chalk and Talk, PPT, group discussion, OHP and YouTube Links	RSD
Mar	IV	Applied Embryology - Organizer concept - Structure - mechanism of induction and competence. Nuclear transplantation - Teratogenesis - Regeneration: types - events and factors.	II B.Sc Zoology	15	Chalk and Talk, OHP, PPT presentations, quiz,	MAR
Apr	V	Human Embryology - Reproductive organs, Menstrual cycle and menopause - Pregnancy - prenatal diagnosis - trimesters - development. Erythroblastosis foetalis - Twins - types. Infertility - causes - Test tube baby and Assisted Reproductive Technology (IVF) - Embryo transfer	II B.Sc Zoology	15	Chalk and Talk, PPT, group discussion, OHP presentations, quiz, open book test	RSD

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LESSON PLAN 2024-2025

Class : II B.Sc Zoology

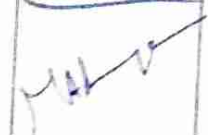
Sem : IV

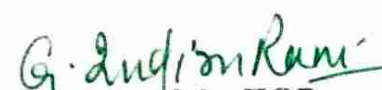
Sub. Code : 23OUZO4P

Title of the Paper: : Lab in Developmental Biology & Agricultural Entomology

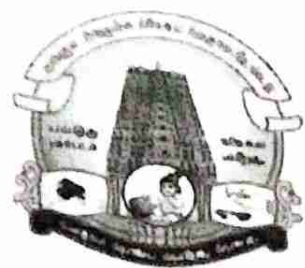
Total Hours : 45 hrs

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Lab in Developmental Biology I.Experiments Different stages of chick embryo-24 Hours, 48 Hours, 72 Hours and 96 Hours. Mounting of insect egg	II B.Sc Zoology	6 3	Demo & Hands on training Demo & Observation	 
Jan	II	II. Slides / Spotters : Observations of testis and ovary showing the maturation stages of gametes (Mammalian) Early developmental stages of Frog - Cleavage, blastula and gastrula Placenta of sheep / Man	II B.Sc Zoology	6 4	Observation of Slides	 

Feb	III	II. Slides / Spotters : 1. Test tube baby 2. Twins 3. Metamorphosis in Amphibian	II B.Sc Zoology	6	Slides Observation	
Mar	IV	Lab in Agricultural Entomology 1. Methods of collection and Identification of insect pests in the college campus. (Any 2) 2. Methods of mounting of insect pests.	II B.Sc Zoology	10	Spotter Identification & Description	RSP 
Apr	V	Spotters: Beneficial insects as Scavengers, Pollinators, Predators Life cycle and control measure of Rice pest - <i>Tryporyza incertulas</i> , Coconut pest - <i>Oryctes rhinoceros</i>	II B.Sc Zoology	10	Spotter Identification & Description	RSN 


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LESSON PLAN 2024-2025

Class : II B.Sc Zoology

Sem : IV

Sub. Code : 23OUZOSE41

Title of the Paper: Agricultural Entomology

Total Hours : 30 Hrs

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Outline classification of Insect upto orders with an Indian example - Insect metamorphosis. Methods of collection, mounting and preservation of insect pests.	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion , OHP presentations, quiz, on the spot test	RSP
Jan	II	Beneficial insects as Scavengers, Pollinators, Predators, Parasites and weed killers. (Any 2 each)	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion , OHP presentations, quiz,	RSP
Feb	III	Insect pest -definition, kinds of pests, pest outbreaks and control measures – Pheromones.	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion , OHP presentations, quiz,	RSP
Mar	IV	Methods of Pest control – Physical, Chemical, Mechanical, Biological, and	II B.Sc Zoology	6		

		Integrated pest management.				
Apr	V	Life cycle and control measure of Rice pest - <i>Tryporyza incertulas</i> , Cotton pest- <i>Helicoverpa armigera</i> , Sugarcane pest- <i>Scirpophaga nivella</i> , Coconut pest - <i>Oryctes rhinoceros</i> and Migratory locust- <i>Locusta migratoria</i> .	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion, OHP presentations, quiz,	RSN

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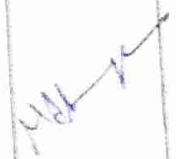
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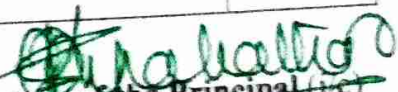
Class : II B.Sc Zoology
 Sem : IV
 Sub. Code : 23OUZOSEC42

Title of the Paper: Medical Laboratory Technology
 Total Hours : 30

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Laboratory Safety and Human Health and Hygiene : Laboratory safety –toxic chemicals and biohazards waste- biosafety level- good laboratory practice – hygiene and health issue – physiology effect of alcohol, tobacco, smoking & junk food & its treatment - biomedical waste management.	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion , OHP presentations, quiz,	MAL V
Jan	II	Haematology: Composition of blood and their function- collection of blood & lab procedure - haemopoiesis- types of anaemia- mechanism of blood coagulation- bleeding time- clotting time- determination of haemoglobin - erythrocyte sedimentations rate- packed cell volume- Total count of RBC & WBC- Differential count WBC- blood grouping and typing-	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion , OHP presentations, quiz,	MAL V

		haemostasis- bleeding disorder of man - Haemolytic disease of new-born, Platelet count, reticulocytes count, Absolute Eosinophil count.				
Feb	III	Medical Microbiology and Instrumentation Techniques: Definition - structure and function of cells - parasites - Leishmania and Trypanosome- Computer tomography (CT scan)- Magnetic Resonance imaging - flow cytometry - treadmill test - PET.	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion, OHP presentations, quiz,	
Mar	IV	Medical Physiology: Cardiovascular system- Blood pressure - Pulse - regulation of heart rate, cardiac shock. Heart sounds, Electrocardiogram (ECG) - significance - ultra sonography- Electroencephalography (EEG).	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion, OHP presentations, quiz,	
Apr	V	Diagnostic Pathology: Handling and labelling of histology specimens - Tissue processing - processing of histological tissues for paraffin embedding, block preparation. Microtomes - sectioning-mounting- problems encountered during section cutting and remedies - Frozen section techniques- freezing microtome.	II B.Sc Zoology	6	Chalk and Talk, PPT, group discussion, OHP presentations, quiz,	


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LESSON PLAN 2024-2025

Class : III B.Sc Zoology

Sem : VI

Sub. Code : 22OUZO61

Title : Physiology

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Nutrition – Nutrients – Digestion and absorption of carbohydrates, proteins and lipids, Role of gastro intestinal hormones in digestion. Respiration – Respiratory pigments – Types, Properties and function, Exchange and transport of gases, Respiratory quotient.	III B.Sc Zoology	12	Chalk and Talk, PPT, quiz, on the spot test	R.S.R
Jan	II	Circulation – Composition and Functions of blood, Types of heart, Cardiac cycle, cardiac rhythm, Pace maker, Origin of heart beat and its regulation, ECG, Blood pressure, Theories of blood clotting. Excretion – Classification of animals based on excretory products, Ornithine cycle, mechanism of urine formation and hormonal control.	III B.Sc Zoology	15	Chalk and Talk, OHP quiz, on the spot test	R.S.R
Feb	III	Osmoregulation – Osmo-iono-regulation in freshwater, marine and migratory fishes. Thermoregulation – Acclimation, Acclimatisation, heat death, cold death, physiology of hibernation and aestivation, Biological rhythm – Types, examples and adaptive significance.	III B.Sc Zoology	9	Chalk and Talk, PPT, group discussion, OHP and You tube Links	R.S.R
Mar	IV	Nerve Physiology – Types of neuron, conduction of nerve	III B.Sc Zoology	15	Chalk and Talk, OHP, PPT	

		impulse along a nerve fibre, Synapses, Synaptic transmission of impulse, Neurotransmitters, Muscle physiology – Types of Muscles, Ultrastructure and properties, muscle proteins, Theories of muscle contraction, Isotonic and Isometric contraction.			presentations, quiz,	RSD
April	V	Endocrine glands – Structure, secretions and functions of Pituitary, Thyroid, Parathyroid Adrenal, Islets of langerhans and Gonads.	III B.Sc Zoology	9	Chalk and Talk, PPT, group discussion, OHP presentations, quiz, open book test	RSD

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LESSON PLAN

2024-2025

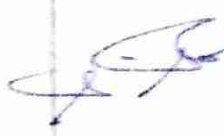
Class : III B.Sc Zoology

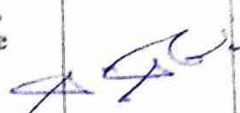
Sem : VI

Sub. Code : 22OUZO62

Title : Microbiology & Immunology

Total Hours :60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Introduction to Microbiology -The history and scope of Microbiology – Classification of Microorganisms : Classification based on Robert H. Whittaker (Five Kingdom system). Outline classification for bacteria as per the second edition of Bergey's Manual of Systematic Bacteriology and Classification of Fungi (Alexopoulos and Mims). Bacterial growth curves, Bacterial media-complex and selective media. Bacterial staining techniques- Control of microbes- Sterilization, disinfection, antiseptic, tyndallisation, pasteurization: Physical- dry heat, moist heat, UV light, ionizing radiation, filtration, HEPA filter, Chemical methods. Pure culture methods (streak plate, spread plate, Pour plate, stab culture, slant culture).	III B.Sc Zoology	12	Chalk and Talk, PPT, quiz, on the spot test	
Jan	II	Food Microbiology - Types of food- Food spoilage: spoilage of Milk & Milk products. Spoilage of beer & wine, Spoilage of vegetables, fruits, meat & canned food. Physical preservation methods: Asepsis, filtration & centrifugation, high & low temperature & Pasteurization, desiccation, radiation, anaerobiosis, canning and controlled atmosphere. Chemical preservation methods: Salt, Sugar, organic acid (Benzoic acid, Sorbic acid, propionates, acetic acid & lactic acid), nitrates, nitrites, sulfur dioxide,	III B.Sc Zoology	9	Chalk and Talk, OHP quiz, on the spot test	

		ethylene dioxide, propylene oxide, wood smoke and antibiotics. Food poisoning. <i>Aspergillus flavus</i> & <i>Clostridium botulinum</i> . Probiotics and prebiotics - Benefits & applications				
Feb	III	Role of microorganisms in Biogeochemical cycles - Nitrogen Cycle and Phosphorus Cycle - Role of microorganisms in soil fertility- Rhizobium, Blue Green Algae (BGA) Biofertilizer, Azotobacter.	III B.Sc Zoology	15	Chalk and Talk, PPT, group discussion, OHP and You tube Links	
Mar	IV	History of Immunology: Contributions of Edward Jenner - Louis Pasteur - Elie Metchnikoff. Types of immunity: Innate-anatomic, physiologic, phagocytic, and inflammatory-Acquired or Adaptive - specificity - diversity- Immunologic memory- self/nonself recognition. Ontogeny of Lymphoid organs - Myeloid Lineage and Lymphoid Lineage. Primary and secondary Lymphoid organs - Thymus, Bone marrow, Spleen, lymph node- Specific and nonspecific immunity - B cells, T cells and sub cells - Immune response- humoral immune response & cell mediated immune response.	III B.Sc Zoology	9	Chalk and Talk, OHP, PPT presentations, quiz,	
April	V	Structure and properties of antigen. Antigen- antibody reaction (precipitation & agglutination). Transplantation- MHC, HLA typing, Hypersensitivity reactions - Type I- anaphylactic reactions, Type II - cytotoxic reactions, Type III - immune complex reactions, Type IV - delayed type hypersensitivity reactions.	III B.Sc Zoology	15	Chalk and Talk, PPT, group discussion, OHP presentations, quiz, open book test	


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LESSON PLAN

2024-2025

Class : III B.Sc Zoology
Sem : VI
Sub. Code : 22OUZODSE6A

Title : Biotechnology
Total Hours :60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Introduction -Origin and Definition - Scope and Importance of Biotechnology - Biotechnology in India - GATT, IPR, TRIPS - recombinant DNA technology - Genetic Engineering - Restriction Enzymes - Gene cloning - Cloning Vectors - Plasmids, Phages, Cosmids --- Electroporation and Microinjection, Microarray.	III B.Sc Zoology	12	Chalk and Talk, PPT, quiz, on the spot test	G. dB
Jan	II	Animal Biotechnology-Animal tissue culture - In vitro fertilization - embryo transfer in man - Transgenic animals - Fish, Biotechnology and medicine - Hybridoma Technology- Mab - hormone production - Viral Vaccines - Edible and designer Vaccines, interferons - Gene Therapy.	III B.Sc Zoology	9	Chalk and Talk, OHP quiz, on the spot test	G. dB
Feb	III	Plant Biotechnology-Plant tissue culture - Protoplast culture - Disease resistant Plants - Stress tolerant plants - Ti-Plasmids - Nif genes - genetically transformed Plants - Terminator gene technology - Plant vectors - Phytoremediation.	III B.Sc Zoology	15	Chalk and Talk, PPT, group discussion , OHP and You tube Links	G. dB
Mar	IV	Industrial Biotechnology- Bioreactors - Fermentation process - Microbial Enzymes and their application --- Biogas Plant structure - Biogas Production - Biofertilizers - Bioinsecticides --- GMOs	III B.Sc Zoology	9	Chalk and Talk, OHP,PPT presentations, quiz,	G. dB

April	V	Environmental Biotechnology - Renewable Energy - Energy and Fuel using Micro organisms - Biomass production through forestry - Gene Banks - Species conservation - Bioremediation - Bio-leaching.	III B Sc Zoology	15	Chalk and Talk, PPT, group discussion, OHP presentations, quiz, open book test	G. LB
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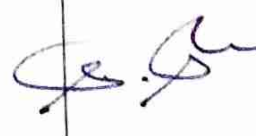
Class : III B.Sc Zoology

Sem : VI

Sub. Code : 22OUZOSE6

Title : Economic Zoology

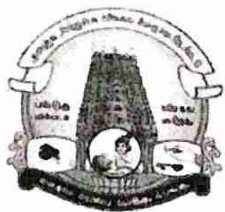
Total Hours :30

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Sericulture - Introduction to Sericulture – Types of silk worms – Rearing of Mulberry Silkworms-Diseases and enemies of silkworms – uses of silk -central silk board.	III B.Sc Zoology	6	Chalk and Talk, PPT, quiz, on the spot test	
Jan	II	Apiculture - Introduction to Apiculture – Types of Honey Bee – Bee Keeping – Hives— Economic importance of honey – Bee Keeping industry-By products of Honey Bee.	III B.Sc Zoology	6	Chalk and Talk, OHP quiz, on the spot test	
Feb	III	Aquaculture - Qualities of Cultivable fishes – Types of Fish farming. Fish culture – Breeding ponds – nursery ponds – rearing ponds – stocking ponds – Harvesting – Preservation of fishes- Fish feed – Chironomous larva.	III B.Sc Zoology	6	Chalk and Talk, PPT, group discussion , OHP andYou tube Links	
Mar	IV	Poultry -Commercial layers and broilers. Poultry housing- deep litter system, cage rearing, feeders & waterers. Summer management, winter management. Debeaking, Poultry	III B.Sc Zoology	6	Chalk and Talk, OHP,PPT presentations, quiz,	

		diseases- viral disease, bacterial disease, fungal disease and parasitic diseases (one each) Vaccination programme.				
April	V	Dairy farming – Breeds of cattles, dairy products, Marketing, Management. Diseases affecting cattle's (Any four) and mode of prevention.	III B.Sc Zoology	6	Chalk and Talk, PPT, group discussion , OHP presentations, quiz, open book test	

G. Indira Rani
Signature of the HOD

[Signature]
Signature of the Principle (I/c)



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LESSON PLAN 2024-2025

Class : III B.Sc Zoology

Sem : VI

Sub. Code : 22OUZO61P

Title of the Paper: Lab in Genetics, Ecology & Evolution and Biochemistry

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Estimation of O ₂ – Winkler's Method	III B.Sc Zoology	6	Hands on Practical classes	
Jan	II	Identification of Planktons Usage of Secchi Disc, Hygrometer, Rain gauge .	III B.Sc Zoology	6	Hands on Practical classes Observation of Spotters	
Feb	III	Variations – finger prints. Homologous & Analogous organs. Vestigial organs.	III B.Sc Zoology	6	Observation of Spotters	
Mar	IV	Connecting link- Archaeopteryx Examples of evolutionary importances- Peripatus & Limulus Colour Blindness and Haemophilia.	III B.Sc Zoology	6	Hands on Practical classes	
Apr	V	III B.Sc Zoology	Visit of Freshwater Ecosystem- Pond-Report of Flora & Fauna.	6	Observation of Spotters	


Signature of the HOD


Signature of the Principal(i/e)



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LESSON PLAN

2024-2025

Class : III B.Sc Zoology

Sem : VI

Sub. Code : 22OUZO62P

Title of the Paper: Lab in Physiology, Microbiology & Immunology and Biotechnology

Total Hours : 60

Month	Unit	Description of the Syllabus	Class	Hours Allocated	Teaching Mode & Methods	Course Teacher Signature
Dec	I	Animal Physiology: Qualitative analysis of ammonia, urea and uric acid. Demonstration of blood pressure using Sphygmomanometer	III B.Sc Zoology	6	Hands on Practical classes	
Jan	II	Microbiology: Simple staining. Gram staining.	III B.Sc Zoology	6	Hands on Practical classes	
Feb	III	Immunology: HLA & MHC	III B.Sc Zoology	6	Observation of Spotters	
Mar	IV	Biotechnology: Ti plasmid	III B.Sc Zoology	6	Observation of Spotters	
April	V	Humulin	III B.Sc Zoology	6	Observation of Spotters	

Signature of the HOD

Signature of the Principal (I/c)