

PG.GOV'T COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

Name of Teacher : DR. DALIP KUMAR

Class: B.Sc II (3rd Semester)

Paper :B

Class :M.Sc I (1st Semester)

Paper :IV

Subject: ZOOLOGY

Session: 2015-16

S. No	Date From	Date Upto	Topics to be covered
Week 1	20 th July	25 th July	Biochemistry And its Scope; classification and function of Carbohydrate ,Protein Lipids
Week 2	27 th July	1 st Aug	Definition and scope of Ecology ; Abiotic factors
Week 3	3 rd Aug	8 th Aug	Classification and function of Nucleic Acid; EMP pathway; TCA cycle; HMP pathway
Week 4	10 th Aug	15 th Aug	Principles of limiting factors ; Ecosystem and major ecosystem
Week 5	17 th Aug	22 nd Aug	Glycogenesis ; Glycogenolysis ;Nature of Enzyme and their classification ; B oxidation of Fatty Acid; Rate of Glycerol ; Interaction of Carbohydrates and Lipids ; Lipogenesis ;Ketosis

Week 6	24 th Aug	29 th Aug	Different types of Biogeochemical cycles; Ecological niche ; Biotic community ; Ecological succession
Week 7	31 st Aug	5 th Sept	Protein Metabolism amino acids ; Oxidative Deamination and ,transamination , decarboxylation and Ornithine cycle
Week 8	7 th Sept	12 th Sept	Types of Ecological adaptation ; Feeding Behavior
Week 9	14 th Sept	19 th Sept	Digestion ; Regulation of digestive process ;types of Nutrition
Week 10	21 st Sept	3 rd Oct	Learning ,Reasoning , Instinctive and Motivational behavior; Social and sexual behavior ; Mimicry and its types
Week 11	5 th Oct	10 th Oct	Feeding Mechanism; Enzymatic digestion ;Symbiotic Digestion ; Function and Composition of blood
Week 12	12 th Oct	21 st Oct	Circadian Rhythms , Intra and inter specific interactions /inter relationships

P.G. GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

(Session: 2015-16)

Dr. Neelam K. Sharma

Subject: Zoology

Class: M.Sc. - I (Sem. - 1) (Paper - II)

& B.Sc. - II (Sem. 3)

S. No.	Date from	Date upto	Topics to be Covered
Week 1	20 th July	25 th July	Origin of Chordates, Introduction of protochordates
Week 2	27 th July	1 st Aug	<i>Characters of chordate, origin of chordate, Type study HERDMANIA</i>
Week 3	3 rd Aug	8 th Aug	Organisation of Urochordata and affinities
Week 4	10 th Aug	15 th Aug	Type study <i>BRANCHIOSTOMA</i>
Week 5	17 th Aug	22 nd Aug	Organisation and affinities of <i>AMPHIOXUS</i>
Week 6	24 th Aug	29 th Aug	Circulatory sys and reproductive system of <i>Branchiostoma</i>
Week 7	31 st Aug	5 th Sept	Comparative Integumentary system of vertebrates and its derivatives
Week 8	7 th Sept	12 th Sept	External characters of <i>Petromyzon</i>
Week 9	14 th Sept	19 th Sept	Comparative account of alimentary canal and associated glands in Vertebrates
Week 10 (including mid-term test)	21 st Sept	3 rd Oct	Affinities of cyclostomes. Parental behaviour
Week 11	5 th Oct	10 th Oct	Chondrocranium, splachnocranium and jaw suspension
Week 12	12 th Oct	21 st Oct	Type study <i>Rana tigrina</i>

PG.GOV'T COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

Class: B.Sc. III

Paper – Economic Entomology & Pest Management

Class: M.Sc. I

Paper- Structure And Function of Invertebrates

Subject: Zoology Dr. Neelima Talwar

Session: 2015-16

S. No	Date From	Date Upto	Topics to be covered
Week 1	20 th July	25 th July	B.Sc. III Classification of class- Insecta, Types of Antennae, legs
Week 2	27 th July	1 st Aug	M.Sc. I Phylum- Protozoa- Classification, feeding, locomotion, reproduction & parasitism
Week 3	3 rd Aug	8 th Aug	B.Sc. III Different types of mouth parts, pests of sugarcane & cotton
Week 4	10 th Aug	15 th Aug	M.Sc. I Phylum- Porifera- Classification, canal system, skeleton & development
Week 5	17 th Aug	22 nd Aug	B.Sc. III Pests of cotton & Rice
Week 6	24 th Aug	29 th Aug	M.Sc. I Phylum- Coelenterata- Classification, polymorphism, coral & coral reefs,

			development & alternation of generation
Week 7	31 st Aug	5 th Sept	B.Sc. III Pests of Wheat & Vegetables
Week 8	7 th Sept	12 th Sept	M.Sc. I Phylum – Platyhelminthes – Classification, Digestive system, Excretion & reproduction
Week 9	14 th Sept	19 th Sept	B.Sc. III Pests of Store grains
Week 10 (including mid term)	21 st Sept	3 rd Oct	M.Sc. I Life cycle of Fasciola, Schistosoma, Taenia, Echinococcus
Week 11	5 th Oct	10 th Oct	B.Sc. III Insects of Medical & Veterinary importance
Week 12	12 th Oct	21 st Oct	M.Sc. I General organization of Phylum Aschelminthes

PG.GOV'T COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

Class: M.Sc. II & B.Sc. III

Paper: XV & A

Subject: Advances In Entomology &

Session: 2015-16

Development biology and Genetics

Dr.Parul

S. No	Date From	Date Up to	Topics to be covered
Week 1	22 nd Jul	25 th Jul	M.Sc.II: Salient features with suitable examples of the various insect orders
Week 2	27 th Jul	1 st Aug	B.Sc. III: Gametogenesis with particular reference to differentiation of spermatozoa, vitellogenesis
Week 3	3 rd Aug	8 th Aug	M.Sc.II: Digestive System, Respiratory System, Nervous System
Week 4	10 th Aug	14 th Aug	B.Sc. III: Hormonal control of gametogenesis, Egg maturation; egg membranes ; polarity of egg
Week 5	17 th Aug	22 nd Aug	M.Sc.II: Reproductive System, Post embryonic development and types of metamorphosis in insects.
Week 6	24 th Aug	29 th Aug	B.Sc. III: Extranuclear inheritance : Kappa particles in Paramecium
Week 7	31 st Aug	5 th Sept	M.Sc.II: Structural modifications in the larvae & pupae, Parthenogenesis in insects.
Week 8	7 th Sept	12 th Sept	B.Sc. III: Linkage, crossing over and recombination
Week 9	14 th Sept	19 th Sept	M.Sc.II: Effect of temperature and photoperiod on the lives of insects, details of onset, termination and significance of diapause.
Week 10 (including mid term)	21 st Sept	3 rd Oct	B.Sc. III: Regulation of gene expression in prokaryotes (Operon model) and in eukaryotes, Population genetics

Week 11	5 th Oct	10 th Oct	M.Sc.II: Plant host-insect interaction, Sericulture, Apiculture
Week 12	12 th Oct	21 st Oct	B.Sc. III: Modification of Mendelian ratios

PG.GOV'T COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

Class: B.Sc IInd Year

Paper : A (Chordates and Evolution)

M.Sc IInd Year

Paper XIII (Cell and Molecular Biology)

Subject: Zoology Dr.Rashmi

Session: 2015-16

S. No	Date From	Date Upto	Topics to be covered
Week 1	20 th July	25 th July	M.Sc II: Structure and function of organelles: Nucleus, Mitochondria.
Week 2	27 th July	1 st Aug	B.Sc II: Introduction of chordates, Origin of Chordates, Organization of <i>Herdmania</i> : Digestive system, Respiratory system.
Week 3	3 rd Aug	8 th Aug	M.Sc II: Structure and function of organelles: Golgi bodies, ER, Ribosomes, Lysosomes.
Week 4	10 th Aug	15 th Aug	B.Sc II: Type study <i>Herdmania</i> : Reproductive system, excretory system, Circulatory system, Tadpole larvae and its metamorphosis.
Week 5	17 th Aug	22 nd Aug	M.Sc II: Fixation and staining techniques: Non chemical and chemical fixatives, chemistry of staining acidic and basic dyes.

Week 6	24 th Aug	29 th Aug	B.Sc II: Type study <i>Branchiostoma</i> - Digestive, respiratory, excretory systems.
Week 7	31 st Aug	5 th Sept	M.Sc II: Plasma membrane: Structure and organization of membranes, glycoconjugates and proteins in membrane system ,ion transport, Na ⁺ -K ⁺ ATPase,
Week 8	7 th Sept	12 th Sept	B.Sc II: Circulatory and reproductive system of <i>Branchiostoma</i> , External characters of <i>Petromyzon</i> .
Week 9	14 th Sept	19 th Sept	M.Sc II: Model membranes, liposomes, Protein sorting in ER, golgi and targeting of proteins to mitochondria.
Week 10 (including mid term)	21 st Sept	3 rd Oct	B.Sc II: Affinities of Cyclostomes, origin of life.
Week 11	5 th Oct	10 th Oct	M.Sc II: Secretory and endocytic pathway, microtubules and microfilaments.
Week 12	12 th Oct	21 st Oct	B.Sc II: Concept and evidences of organic evolution, theories of organic evolution.

PG.GOV'T COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

Class: M.Sc II & B.Sc III

Paper XI, A

Subject: Developmental Biology, Developmental Biology & Genetics

Teacher Name: Dr.Rewa

Session: 2015-16

S. No	Date From	Date Upto	Topics to be covered
Week 1	20 th July	25 th July	Introduction to Developmental Biology, Gametogenesis
Week 2 B.Sc III Section A	27 th July	1 st Aug	Gene & Genetic Code: Structure of nucleic acids, Replication, transcription, translation.
Week 3	3 rd Aug	8 th Aug	Molecular events during fertilization, Zygote formation, Cleavage patterns and fate maps of Tunicate.
Week 4 B.Sc III Section B	10 th Aug	15 th Aug	Gene & Genetic Code: Structure of nucleic acids, Replication, transcription, translation.
Week 5	17 th Aug	22 nd Aug	Cleavage patterns and fate maps Drosophila, Amphibia, Chick and C.elegans. Blastula formation, embryonic fields.
B.Sc III Section A	24 th Aug	29 th Aug	Properties of genetic code, code assignment, wobble's hypothesis, Kappa particles in Paramecium.
Week 7	31 st Aug	5 th Sept	Gastrulation and formation of three germ layers in

			animals.
B.Sc III Section B	7 th Sept	12 th Sept	Properties of genetic code, code assignment, wobble's hypothesis, Kappa particles in Paramecium.
Week 9	14 th Sept	19 th Sept	Pattern formation in Drosophila, Amphibia, Chick and C.elegans.
Week 10 (including mid term) B.Sc III Section A	21 st Sept	3 rd Oct	Regulation of gene expression, Genetic recombination in Bacteria, DNA fingerprinting
Week 11	5 th Oct	10 th Oct	Potency, commitment, specification, determination and differentiation.
Week 12	12 th Oct	21 st Oct	development of Chick and Rabbit upto three germinal layers

P.G. GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

(Session: 2015-16)

Dr. Sanjay Kumar Jha
Faculty - ZOOLOGY (1st Semester)

Class Weekly Schedule of Syllabus:
B.Sc. - I (Paper - B)
M.Sc. - I Zoology (Paper - V)
M.Sc. - II Zoology (Paper - XIV)

S. No.	DATES/WEEK	CLASS	BOOKS & PAGE No.	SYLLABUS	CONTENT UPLOADED
1.	20 th - 25 th July (Week 1)	B.Sc. - I	A Text book of Zoology - Vol. 1. (Authors: P.S. Dhama and J.K. Dhama); Zoology - Vol. 1 (Ashok Sabharwal)	- Introduction to Invertebrates and various phylums, Introduction to phylum Platyhelminthes and its classifications.	Yes

		M.Sc. - I	& Dr. S.K. Malhotra). A Textbook of Zoology - Vol 2 (Authors: R. Mahanta & I.K. Bhattacharyya). Self prepared notes to be given to the students.	- Introduction to Biostatistics and its components, applications of statistics in biological research activities.	
2.	27 th - 1 st August (Week 2)	M.Sc. - II	Self prepared notes to be given to the students.	- Introduction to Microscopy and its components, its various types, principles and application with reference to SEM & TEM.	
3.	4 th - 9 th August (Week 3)	B.Sc. - I M.Sc. - I	A Text book of Zoology - Vol. 1. (Authors: P.S. Dhama and J.K. Dhama); Zoology - Vol. 1 (Ashok Sabharwal & Dr. S.K. Malhotra). A Textbook of Zoology - Vol 2 (Authors: R. Mahanta & I.K. Bhattacharyya). Self prepared notes to be given to the students	- Detailed type study of <i>Fasciola hepatica</i> . - Basic biostatistics and Measures of central tendency (Mean, Median and Mode).	Yes
4.	3 rd - 8 th August (Week 4)	M.Sc. - II	Self prepared notes to be given to the students.	- Cell fractionation method, Centrifugation and Ultra-centrifugation methods.	
5.	10 th - 15 th August (Week 5)	B.Sc. - I M.Sc. - I	A Text book of Zoology - Vol. 1. (Authors: P.S. Dhama and J.K. Dhama); Zoology - Vol. 1 (Ashok Sabharwal & Dr. S.K. Malhotra). A Textbook of Zoology - Vol. 2 (Authors: R. Mahanta & I.K. Bhattacharyya). Self prepared notes to be given to the students.	- Type study of <i>Fasciola hepatica</i> (Contd.) - Average statistics of dispersion (Range, Mean deviation, Standard deviation, Variance and their coefficients).	Yes
6.	17 th - 22 nd August	M.Sc. - II	Self prepared notes to be given to the	- Spectrophotometry, its principle and applications.	

	(Week 6)		students		
7.	24 st - 29 th August (Week 7)	B.Sc. - I M.Sc. - I	A Text book of Zoology - Vol. 1. (Authors: P.S. Dhami and J.K. Dhami); Zoology - Vol. 1 (Ashok Sabharwal & Dr. S.K. Malhotra). A Textbook of Zoology - Vol 2 (Authors: R. Mahanta & I.K. Bhattacharyya). Self prepared notes to be given to the students.	- Type study of <i>Taenia solium</i> . - Tests of statistical significance (Student's t-test, F-test, Chi-square test).	Yes
8.	31 th August - 5 th September (Week 8)	M.Sc. - II	Self prepared notes to be given to the students.	- Chromatography; its types, principle and its applications.	
9.	7 th - 12 th September (Week 9)	B.Sc. - I M.Sc. - I	A Text book of Zoology - Vol. 1. (Authors: P.S. Dhami and J.K. Dhami); Zoology - Vol. 1 (Ashok Sabharwal & Dr. S.K. Malhotra). A Textbook of Zoology - Vol. 2 (Authors: R. Mahanta & I.K. Bhattacharyya). Self prepared notes to be given to the students.	- Type study of <i>Taenia solium</i> (Contd.). - Correlation and Regression analysis.	Yes
10.	14 th - 19 th September (Week 10)	M.Sc. - II	Self prepared notes to be given to the students.	- Chromatography; its types, principle and its applications (Contd.).	
11.	21 st September- 3 rd October (Week 11)	Mid-Term House Tests			
12.	5 th - 10 st October (Week 12)	B.Sc. - I	A Text book of Zoology - Vol. 1. (Authors: P.S. Dhami and J.K. Dhami); Zoology - Vol. 1 (Ashok Sabharwal & Dr. S.K. Malhotra). A Textbook of Zoology - Vol. 2 (Authors: R. Mahanta & I.K.	- Introduction to phylum Aschelminthes and its classifications, Type study of <i>Ascaris</i> .	Yes

		M.Sc. - I	Bhattacharyya). Self prepared notes to be given to the students.	- ANOVA and ways of its analysis.	
13.	12 th - 21 st October (Week 13)	M.Sc. - II	Self prepared notes to be given to the students.	- Electrophoresis; its principle and techniques.	

P.G. GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

(Session: 2015-16)

Dr. Sushma Gupta

Subject: Zoology

Class: M.Sc. - I (Sem. - 1) (Paper - III)

& B.Sc. - III (Medical Zoology)

S. No	Date From	Date Upto	Topics to be covered
Week 1	20 th July	25 th July	Entamoeba, Trypanosoma, Giardia
Week 2	27 th July	1 st Aug	Animal Physiology Nutrition
Week 3	3 rd Aug	8 th Aug	Leishmania, Plasmodium Trichomonas
Week 4	10 th Aug	15 th Aug	Circulation
Week 5	17 th Aug	22 nd Aug	Fasciolopsis, Echinococcus Schistosoma
Week 6	24 th Aug	29 th Aug	Respiration Excretion
Week 7	31 st Aug	5 th Sept	Enterobius, Wuchereria Ancylostoma
Week 8	7 th Sept	12 th Sept	Physiology of muscle
Week 9	14 th Sept	19 th Sept	Trichinella, Dracunculus Anopheles
Week 10 (including mid term)	21 st Sept	3 rd Oct	Stress Physiology

Week 11	5 th Oct	10 th Oct	Culex, Lice, Pediculus
Week 12	12 th Oct	21 st Oct	Stress Physiology

PG.GOV'T COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

Class: B.Sc.-I

Paper: I

Subject: Biodiversity & cell biology-I

Session: 2015-16

Ms.Vandadna

S. No	Date From	Date Upto	Topics to be covered
Week 1	20 th July	25 th July	----
Week 2	27 th July	1 st Aug	Principles and applications of microscope
Week 3	3 rd Aug	8 th Aug	
Week 4	10 th Aug	15 th Aug	Fixation and concept of prokaryotes & eukaryotes
Week 5	17 th Aug	22 nd Aug	
Week 6	24 th Aug	29 th Aug	Organization of cell membrane, model, osmosis
Week 7	31 st Aug	5 th Sept	

Week 8	7 th Sept	12 th Sept	Transport, endocytosis & exocytosis
Week 9	14 th Sept	19 th Sept	
Week 10 (including mid term)	21 st Sept	3 rd Oct	Structure and function of endoplasmic reticulum, mitochondria
Week 11	5 th Oct	10 th Oct	
Week 12	12 th Oct	21 st Oct	Mitochondria, golgi complex

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Teaching Plan

Class: B.Sc. I

Paper: I

Subject: Biodiversity & cell biology - I

Session: 2015-16

Teacher Name: Ms.Divya

S. No	Date From	Date Up to	Topics to be covered
Week 1	20 th July	25 th July	General Characters of Phylum Protozoa
Week 2	27 th July	1 st Aug	
Week 3	3 rd Aug	8 th Aug	Type study of <i>Amoeba</i>
Week 4	10 th Aug	15 th Aug	
Week 5	17 th Aug	22 nd Aug	Type study of <i>Paramecium</i>
Week 6	24 th Aug	29 th Aug	

Week 7	31 st Aug	5 th Sept	Type study of <i>Plasmodium</i>
Week 8	7 th Sept	12 th Sept	
Week 9	14 th Sept	19 th Sept	General Characters of Phylum Porifera
Week 10 (including mid term)	21 st Sept	3 rd Oct	Type study of <i>Scypha</i>
Week 11	5 th Oct	10 th Oct	
Week 12	12 th Oct	21 st Oct	General characters of Phylum Coelenterata

PG.GOV'T COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH

Teaching Plan

Class: B.Sc. I, Biotech Hons.-I

Paper: II

Subject: Biodiversity & cell biology - II

Session: 2015-16

Teacher Name: Ms.Sonu

S. No	Date From	Date Up to	Topics to be covered
Week 1	20 th July	25 th July	-
Week 2	27 th July	1 st Aug	Structure and function of nucleus & its components
Week 3 (Biotech Hons.)	3 rd Aug	8 th Aug	Nutrition & Digestion, Homeostasis
Week 4	10 th Aug	15 th Aug	Nucleus, Chromosomes

Week 5 (Biotech Hons.)	17 th Aug	22 nd Aug	Circulation, Respiration
Week 6	24 th Aug	29 th Aug	Lysosome, Ribosome
Week 7 (Biotech Hons.)	31 st Aug	5 th Sept	Urinary, Immune system
Week 8	7 th Sept	12 th Sept	Ribosome, Centrosome
Week 9 (Biotech Hons.)	14 th Sept	19 th Sept	Endocrine, Nervous system
Week 10 (including mid term)	21 st Sept	3 rd Oct	Introduction & types of cancer, Transformation
Week 11 (Biotech Hons.)	5 th Oct	10 th Oct	Skeletal, Reproduction
Week 12	12 th Oct	21 st Oct	Immunity & Organ on Immune system