

Lesson Plan
Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans- Odd Semester (Semester-V)
Session – 2023-24
Department- Zoology
Name of the Teacher- Dr. Neetu
Class- B.Sc. III (Medical)
Single section
Subject- Zoology

Paper–I: Developmental Biology (ZOO-501)

Month	Date		Topics to be Covered	Academic Activity to be Undertaken
	From	To		
July	21.07.2023	31.07.2023	Gametogenesis with particular reference to differentiation of spermatozoa	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 03.08.2023 to review the progress of syllabus as per lesson plans				
August	01.08.2023	31.08.2023	Vitellogenesis, role of follicle/subtesticular cells in gametogenesis Egg maturation, egg membranes, polarity of egg Foetal membranes, their formation and role	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 02.09.2023 to review the progress of syllabus as per lesson plans				
September	01.09.2023	30.09.2023	Mammalian placenta- its formation, types and functions Fate maps of chick and frog embryos. Metamorphosis in <i>Herdmania</i> and <i>Rana</i> (frog)	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 03.10.2023 to review the progress of syllabus as per lesson plans				
October	01.10.2023	31.10.2023	Fertilization, parthenogenesis Cleavage: Types of cleavage patterns depending upon amount and distribution of yolk and position of spindle. Blastula and types of blastula. MST	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 02.11.2023 to review the progress of syllabus as per lesson plans				
November	01.11.2023	18.11.2023	Induction: cell to cell interactions, juxtacrine, paracrine, gap junctions; basic concepts of organizers and inducers and their role Determination and differentiation Development up to three germ layers in <i>Herdmania</i> , <i>Amphioxus</i> , frog, chick and rabbit Revision and Class test	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 20.11.2023 to review the completion of syllabus as per lesson plans				
End semester Examination 27.11.2023 to 30.12.2023				

Lesson Plan
Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans- Even Semester (Semester-VI)
Session – 2023-24
Department- Zoology
Name of the Teacher- Dr. Neetu
Class- B.Sc. III (Medical)
Single Section
Subject- Zoology

Paper-I: Genetics (ZOO- 601)

Month	Date		Topics to be Covered	Academic Activity to be Undertaken
	From	To		
January	09.01.2024	31.01.2024	Mendelism and Mendelian Ratios Modification of Mendelian ratios Non-allelic gene interaction, Modified F ₂ ratios (9:7, 9:3:4, 9:3:3:1, 12:3:1, 13:3,15:1, 9:6:1) Gene modifications due to incomplete dominance, lethal factors (2:1), Pleiotropic genes Multiple Alleles: Blood group inheritance, eye colour in <i>Drosophila</i> , pseudo-allelism Multiple factors: Qualitative and quantitative characters, inheritance of quantitative traits (skin colour in man)	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 02.02.2024 to review the progress of syllabus as per lesson plans				
February	01.02.2024	29.02.2024	Linkage, crossing over and recombination: Linkage, sex-linked characters, crossing over, frequency of crossing over, cytological basis of crossing over, synaptonemal complex. Recombination in Fungi, (tetrad analysis). MST	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 02.03.2024 to review the progress of syllabus as per lesson plans				
March	01.03.2024	31.03.2024	Mutations: Spontaneous and induced mutations, physical and chemical mutagens, Detection of mutations in <i>Drosophila</i> . Inborn errors of metabolism in man (Phenylketonuria, Alkaptonuria, Albinism). Somatic mutations and carcinogenesis Regulation of gene expression in prokaryotes (Operon model) and in eukaryotes	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 02.04.2024 to review the progress of syllabus as per lesson plans				
April	01.04.2024	22.04.2024	Population genetics: Equilibrium of gene frequencies and Hardy Weinberg Law Genetic recombination in bacteria (conjugation, transduction and transformation), plasmids Applied Genetics: Recombinant DNA, genetic cloning and its applications in medicine and agriculture, DNA fingerprinting Revision and Class test	Power point presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting on 24.04.2024 to review the completion of syllabus as per lesson plans				
End semester Examination 02.05.2024 to 05.06.2024				