

Lesson Plan
Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans- Odd Semester (Semester-V)
Session – 2022-23
Department- Zoology
Names of the Teachers- Dr. Neetu and Ms. Kadambari Pathania
Class- B.Sc. III (Medical)
(Section A & B)
Subject- Zoology
Paper–I: Developmental Biology (ZOO-501)

Month	Date		Topics to be Covered	Academic Activity to be Undertaken
	From	To		
August	17.08.2022	31.08.2022	Gametogenesis with particular reference to differentiation of spermatozoa	Powerpoint presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 28.08.2022				
September	01.09.2022	30.09.2022	Vitellogenesis, role of follicle/subtesticular cells in gametogenesis Egg maturation, egg membranes, polarity of egg Foetal membranes, their formation and role Mammalian placenta- its formation, types and functions Fate maps of chick and frog embryos. Metamorphosis in <i>Herdmania</i> and <i>Rana</i> (frog)	Powerpoint presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.09.2022				
October	01.10.2022	31.10.2022	Fertilization, parthenogenesis Cleavage: Types of cleavage patterns depending upon amount and distribution of yolk and position of spindle. Blastula and types of blastula.	Powerpoint presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 03.10.2022				
November	01.11.2022	25.11.2022	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 MST	Powerpoint presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 22.11.2022				
End semester Examination 28.11.2022 to 31.12.2022				

Lesson Plan
Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh
Monthly Teaching Plans- Even Semester (Semester-VI)
Session – 2022-23
Department- Zoology
Names of the Teachers- Dr. Neetu and Dr. Sandeep Kaur
Class- B.Sc. III (Medical)
(Section A & B)
Subject- Zoology
Paper-I: Genetics (ZOO- 601)

Month	Date		Topics to be Covered	Academic Activity to be Undertaken
	From	To		
January	16.01.2023	31.01.2023	<p>Mendelism and Mendelian Ratios Modification of Mendelian ratios Non-allelic gene interaction, Modified F2 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</p> <p>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)</p>	Powerpoint presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.01.2023				
February	01.02.2023	28.02.2023	<p>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).</p> <p>MST</p>	Powerpoint presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.02.2023				
March	01.03.2023	31.03.2023	<p>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</p> <p>Regulation of gene expression in prokaryotes (Operon model) and in eukaryotes</p>	Powerpoint presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.03.2023				
April	01.04.2023	29.04.2023	<p>Population genetics: Equilibrium of gene frequencies and Hardy Weinberg Law Genetic recombination in bacteria (conjugation, transduction and transformation), plasmids</p> <p>Applied Genetics: Recombinant DNA, genetic cloning and its applications in medicine and agriculture, DNA fingerprinting</p>	Powerpoint presentation, group discussion, assignments, Flipped classroom method
Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 03.04.2023				
End semester Examination 02.05.2023 to 03.06.2023				