

**Lesson Plan**  
**Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh**  
**Monthly Teaching Plans- Odd Semester (Semester-V)**  
**Session – 2021-22**  
**Department- Zoology**  
**Names of the Teachers- 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 Undertaken
	From	To		
August	17.08.2021	31.08.2021	Gametogenesis with particular reference to differentiation of spermatozoa	Online lectures through Google meet, PPT,
September	01.09.2021	30.09.2021	Vitellogenesis, role of follicle/subtesticular cells in gametogenesis  Egg maturation, egg membranes, polarity of egg	Online lectures through Google meet, PPT,
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 04.10.2021</b>				
October	01.10.2021	31.10.2021	Fertilization, parthenogenesis Cleavage: Types of cleavage patterns depending upon amount and distribution of yolk and position of spindle. Blastula and types of blastula.	Online lectures through Google meet, PPT,
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 03.11.2021</b>				
November	01.11.2021	30.11.2021	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 <b>MST</b>	Online lectures through Google meet, PPT,
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.12.2021</b>				
December	01.12.2021	24.12.2021	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)	Online lectures through Google meet, PPT,
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 17.12.2021</b>				
<b>End semester Examination 17.12.2021 to 27.01.2022</b>				

**Lesson Plan**  
**Mehr Chand Mahajan DAV College for Women, Sector – 36A, Chandigarh**  
**Monthly Teaching Plans- Even Semester (Semester-VI)**  
**Session – 2021-22**  
**Department- Zoology**  
**Names of the Teachers- Dr. Neetu**  
**Class- B.Sc. III (Medical)**

(Single Section)

Subject- Zoology

Paper-I: Genetics (ZOO- 601)

Month	Date		Topics to be Covered	Academic Activity Undertaken
	From	To		
February	03.02.2022	28.02.2022	<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)</p> <p>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</p> <p>Multiple factors: Qualitative and quantitative characters, inheritance of quantitative traits (skin colour in man)</p>	Lecture method, PPT
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.03.2022</b>				
March	01.03.2022	31.03.2022	<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).  <b>MST</b></p>	Lecture method, PPT, Videos
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 01.04.2022</b>				
April	01.04.2022	30.04.2022	<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  Regulation of gene expression in prokaryotes (Operon model) and in eukaryotes</p>	Lecture method, PPT, Videos
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 02.05.2022</b>				
May	01.05.2022	25.05.2022	<p>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  <b>Revision and Class test</b></p>	Lecture method, PPT
<b>Departmental Meeting to Coordinate and Review the Monthly completion of Syllabus as per lesson plans on 26.05.2022</b>				
<b>End semester Examination 26.05.2022 to 05.07.2022</b>				