

CURRICULUM PLAN (Aug.-Dec, 2024)

Dr. MAYANGLAMBAM ROJINA DEVI

Subject- **Fundamentals of Genetics (DSC; Theory)**

Class- **B. Sc. (H) Zoology Sem V**

Shared with- **Mrs. Shikha Rani**

Contents	Allocation of lectures	Month-wise schedule to be followed	Tutorial/ Assignments / Presentations
Unit 3: Mutations Types of gene mutations, Detection of mutations in <i>Drosophila</i> : CLB method, attached X method, Mutagens: Physical and Chemical, Molecular basis of spontaneous and induced mutations, Chromosomal aberrations: Variations in number and structure.	10 lectures	August-September	<ul style="list-style-type: none"> Overall introduction to this paper PPT with relevant pictures and videos Surprise quiz
UNIT- 5: Extra-chromosomal Inheritance Comparison of nuclear and extranuclear inheritance; Organelle inheritance: Antibiotic resistance in <i>Chlamydomonas</i> , Infective heredity in <i>Paramecium</i> . Maternal effects: Shell coiling in <i>Limnaea</i> , pigmentations in <i>Ephesia</i> .	10 lectures	September-October	<ul style="list-style-type: none"> 2 minutes recap of previous class Discussion through PPT PPT with relevant pictures and videos Distribution of assignments
UNIT- 6: Transposable Genetic Elements Transposons in bacteria, Ty elements in yeast, Ac-Ds elements in maize, P elements in <i>Drosophila</i> , Transposons in humans, Significance of Transposons.	10 lectures	October-November	<ul style="list-style-type: none"> 2 minutes recap on previous class Class Test Discussion through PPT Surprise quiz REVISION
UNIT- 4: sex Determination Basis of sex determination: Genetic and environmental; Sex determination in <i>Drosophila</i> and human			<ul style="list-style-type: none">

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