

Government College, Mahendergarh

Lesson Plan - B.Sc Medical 2nd semester.

ARUN BHARAT (Department of Botany)

SYLLABUS PLAN : Even SEMSTER 2021-22

Week	Topics
21.03.2022 -- 26.03.2022	DNA - The Genetic Material. - Molecular Str. of DNA, Properties of DNA.
28.03.2022 -- 02.04.2022	Double Helix Model of DNA., Function of DNA. - DNA Protein Interaction.
04.04.2022 -- 09.04.2022	- Replication of DNA - Mechanism of DNA Replication
11.04.2022 -- 16.04.2022	- Replication of Circular DNA molecules. - Genetic Code.
18.04.2022 -- 23.04.2022	- Properties of Genetic Codon. - Degeneracy & Wobble Hypothesis.
25.04.2022 -- 30.04.2022	- Genetic Inheritance - - Mendel & His theory of Inheritance.
02.05.2022 -- 07.05.2022	- Reciprocal cross, Test cross, Back cross - Gene Symbols.
09.05.2022 -- 14.05.2022	- Mendel's Laws of Inheritance - - Principal of Dominance.
16.05.2022 -- 21.05.2022	- Principal of segregation - Law of Purity of gametes.
23.05.2022 -- 28.05.2022	- Principal of independent assortment. - Importance of Mendelism.
30.05.2022 -- 04.06.2022	- Linkage → Exp. by W. Bateson & R.C. Punnet. - Coupling & Repulsion hypothesis.
30.05.2022 -- 04.06.2022	- Linkage → Exp. by W. Bateson & R.C. Punnet. - Coupling & Repulsion Hypothesis.
30.05.2022 -- 04.06.2022	— — — — —
06.06.2022 -- 11.06.2022	- Chromosome theory of Linkage. - Types of Linkage.
13.06.2022 -- 18.06.2022	- Linkage groups & Linkage Maps - Factor affecting linkage.
20.06.2022 -- 25.06.2022	- Genetic Interactions - - Intragenic Interactions. - Co-dominance, Semi-Dominance, Lethal genes.
27.06.2022 -- 02.07.2022	- Non-Allelic Interactions - Complementary genes - Epistasis, Duplicate genes

Abharat.

Assistant Professor

Govt. College Mahendergarh

Government College, Mahendergarh
 Lesson Plan - B.Sc Medical 4th Semester
 ARUN BHARAT (Department of Botany).
 SYLLABUS PLAN : Even SEMSTER 2021-22

Week	Topics
21.03.2022 -- 26.03.2022	- Flower - a modified shoot. (Brief) description - Microsporangium - its wall & dehiscence mechanism
28.03.2022 -- 02.04.2022	- Microsporogenesis. - structure & stages of Microsporogenesis.
04.04.2022 -- 09.04.2022	- Pollen grains (Pollen wall) - structure & function.
11.04.2022 -- 16.04.2022	- Pollen Germination, Male Gametophyte. *(Assignment on Microsporangium).
18.04.2022 -- 23.04.2022	- Pollen Pistil Interaction - Self Incompatibility.
25.04.2022 -- 30.04.2022	- Pollination - - Types & agencies.
02.05.2022 -- 07.05.2022	- Structure of Megasporangium. - Megasporogenesis
09.05.2022 -- 14.05.2022	- Female Gametophyte - (Mono, bi & tetrasporic)
16.05.2022 -- 21.05.2022	- Double fertilization - Endosperm
23.05.2022 -- 28.05.2022	- Endosperm - - Types & Biological Importance.
30.05.2022 -- 04.06.2022	Embryogenesis in Dicot plants - Description about dicot plants.
30.05.2022 -- 04.06.2022	- Embryogenesis in Dicot plant. - Description about dicot plants & seed.
30.05.2022 -- 04.06.2022	_____
06.06.2022 -- 11.06.2022	- Embryogenesis in Monocot plant. - Structure & Monocot seed.
13.06.2022 -- 18.06.2022	- Polyembryony - types & functions
20.06.2022 -- 25.06.2022	- Fruit - function & types of fruits
27.06.2022 -- 02.07.2022	- Dispersal mechanism in fruits & seeds.

Arun Bharat.

Assistant Professor
 Govt. College Mahendergarh

-Government College, Mahendergarh.
 Lesson Plan → B.Sc Medical 6th Semester.
 ARUN BHARAT (Department of Botany).
 SYLLABUS PLAN : Even SEMSTER 2021-22

Week	Topics
21.03.2022 -- 26.03.2022	-Nitrogen Metabolism, Nitrogen Fixation -Importance of Nitrate Reductase & its regulation.
28.03.2022 -- 02.04.2022	-Genetic Engineering & Biotechnology. -Tools & techniques of r-DNA technology. -Cloning vectors.
04.04.2022 -- 09.04.2022	-Genomic Library, c-DNA Library -Transposable elements.
11.04.2022 -- 16.04.2022	-Plant Tissue Culture, Cellular totipotency -Differentiation & Morphogenesis.
18.04.2022 -- 23.04.2022	-Agro-bacterium -Vectors of gene delivery, Marker genes.
25.04.2022 -- 30.04.2022	-Basic of Enzymology - Discovery & Nomenclature. -Characteristics of Enzymes.
02.05.2022 -- 07.05.2022	-Concepts of Holoenzymes, Apoenzyme, Coenzyme. -Co-factors, Regulation of Enzymes.
09.05.2022 -- 14.05.2022	-Growth & Development. Phases of growth & development. -Plant Hormones.
16.05.2022 -- 21.05.2022	-Plant Hormones - Cytokinin, ABA, Ethylene, - Discovery, biosynthesis & mechanism of action.
23.05.2022 -- 28.05.2022	-Plant Hormones - Auxin, Gibberellin - Biosynth- -esis & mechanism of action.
30.05.2022 -- 04.06.2022	-Lipid Metabolism - Str. & functions of Lipids -Fatty acid biosynthesis. - Mobilization of fatty acids.
30.05.2022 -- 04.06.2022	- Fatty acid biosynthesis - Assignment & Tests.
30.05.2022 -- 04.06.2022	- Mobilization of fatty acids. - Tests.
06.06.2022 -- 11.06.2022	-Morphological description, brief idea of Cultivation & economic uses - Cereals, pulses, Vegetables.
13.06.2022 -- 18.06.2022	- Medicinal plants, Spices, Fibres
20.06.2022 -- 25.06.2022	-Botanical description - Beverages, Rubber, Sugar.
27.06.2022 -- 02.07.2022	-General account & sources of Timber Yielding Plants -Energy Plantation & Bio fuels.

A. Bharat.

Assistant Professor
Govt. College Mahendergarh