

BAIJNATH CHAUDHARY GOVT. COLLEGE FOR WOMEN, NANGAL CHAUDHARY

Lesson Plan

Name of the Associate Professor: Dr. Manoj Kumar

Semester: 2nd

Class and Section: B.Sc. (Medical)

Subject: Botany

Month	
1 st Jan, 2024 to 31 st Jan, 2024	Bryophyta- General characters, classification (upto classes), alternation of generations, evolution of sporophytes and economic importance
1 st Feb, 2024 to 29 th Feb, 2024	Bryophyta: Structure and reproduction (excluding development) of Marchantia (Hepaticopsida), Anthoceros (Anthocerotopsida) and Funaria (Bryopsida). Genetic Material: DNA - the genetic material, DNA structure and replication, DNA-Protein interaction, The Nucleosome Model, Genetic Code, Satellite and Repetitive DNA. Genetic Inheritance: Mendelism: Laws of Segregation and Independent Assortment; Linkage Analysis; Allelic and non-allelic interactions.
1 st March, 2024 to 31 st March, 2024	Pteridophyta- General characters, classification (upto classes), alternation of generations, heterospory, apospory, apogamy and economic importance; General account of stellar evolution. Extra-nuclear Inheritance: Presence and function of Mitochondrial and Plastid DNA; Plasmids. Genetic Variations: Mutations - spontaneous and induced; transposable genetic elements; DNA damage and repair.
1 st April, 2024 to 30 th April, 2024	Pteridophyta: Structure and reproduction (excluding development) of Rhynia (Psilopsida), Selaginella (Lycopsida), Equisetum (Sphenopsida) and Pteris (Pteropsida). Gene Expression: Modern concept of gene; RNA; Ribosomes; Transfer of genetic information - transcription and translation; Structure of proteins; Regulation of gene expression in prokaryotes and eukaryotes.

Manoj

BAIJNATH CHAUDHARY GOVT. COLLEGE FOR WOMEN, NANGAL CHAUDHARY

Lesson Plan

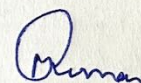
Name of the Associate Professor: Dr. Manoj Kumar

Semester: 4th

Class and Section: B.Sc. (Medical)

Subject: Botany

Month	
1 st Jan, 2024 to 31 st Jan, 2024	Flower-a modified shoot, Microsporangium, its wall and dehiscence mechanism. Microsporogenesis, pollen grains and its structure (pollen wall). Pollen germination (microgametogenesis), Male gametophyte, Pollen-pistil Interaction.
1 st Feb, 2024 to 29 th Feb, 2024	Self incompatibility, Pollination: types and agencies Structure of Megasporangium (ovule), its curvatures; Megasporogenesis and Megagametogenesis,
1 st March, 2024 to 31 st March, 2024	Female gametophyte (mono, bi and tetrasporic), Double fertilization, Endosperm types and its biological importance.
1 st April, 2024 to 30 th April, 2024	Embryogenesis in Dicot and Monocot; Polyembryony, Structure of Dicot and Monocot seed, Fruit types; Dispersal mechanisms in fruits and seeds.



BAIJNATH CHAUDHARY GOVT. COLLEGE FOR WOMEN, NANGAL CHAUDHARY

Lesson Plan

Name of the Associate Professor: Dr. Manoj Kumar

Semester: 6th

Class and Section: B.Sc. (Medical)

Subject: Botany

Month	
1 st Jan, 2024 to 31 st Jan, 2024	Vavilov's centres of origin of crop plants, Origin, distribution, botanical description, brief idea of cultivation and economic uses of the following: Food plants - cereals (rice, wheat and maize), pulses (gram, arhar and pea), vegetables (potato, tomato and onion).
1 st Feb, 2024 to 29 th Feb, 2024	Origin, distribution, botanical description, brief idea of cultivation and economic uses of the following: Fibers- cotton, jute and flax. Oils- groundnut, mustard, sunflower and coconut
1 st March, 2024 to 31 st March, 2024	Morphological description, brief idea of cultivation and economic uses of the following: Spices- coriander, ferula, ginger, turmeric, cloves. Medicinal plants- Cinchona, Rauwolfia, Atropa, Opium, Cannabis, Azadirachta, Withania.
1 st April, 2024 to 30 th April, 2024	Botanical description, processing and uses of: Beverages- tea and coffee; Rubber - Hevea; Sugar- sugarcane General account and sources of timber; energy plantations and bio-fuels.