

MAHARANA PRATAP MAHAVIDHYALAYA JUNGLE DHUSAR GORAKHPUR

BOTANY DEPARTMENT

Course Code: BOT 104 F

Semester II

Course Title: Semester II Practical

Date	Lecture Number	Teacher's name	Unit	Topic
20.01.2025	1	Dr.AKS/ Dr. AKG	Angiosperm Morphology	1. To study diversity in leaf shape, size and other foliar features. 2. To study monopodial and sympodial branching. 3. Morphology of Fruits 4. Inflorescence types- study from fresh/ preserved specimens
21.01.2025	1	Dr.AKS/ Dr. AKG	Angiosperm Morphology	5. Flowers- study of different types from fresh/ preserved specimens 6. Fruits- study from different types from fresh/preserved specimens 7. Study of ovules (permanent slides/ specimens/photographs)- types (anatropous, orthotropous, amphitropous and campylotropous) 8. Modifications in Roots, stems, leaves and inflorescences
27.01.2025	2	Dr.AKS/ Dr. AKG	Plant Anatomy:	Normal & Anomalous secondary thickening - Bignonia, Dracaena
28.01.2025	2	Dr.AKS/ Dr. AKG	Plant Anatomy:	Boerhaavia diffusa, Nyctanthes
04.02.2025	3	Dr.AKS/ Dr. AKG	Plant Anatomy:	Study of primary and secondary growth in the root and stem of monocots and dicots by section cutting and permanent slides.
10.02.2025	4	Dr.AKS/ Dr. AKG	Plant Anatomy:	Study of internal structure of dicot and monocot leaves. Study of structure of stomata.
11.02.2025	5	Dr.AKS/ Dr. AKG	Reproductive Botany	1. Structure of anther, microsporogenesis and pollen grains 2. Structure of ovule and embryo sac development (through slides).
17.02.2025	6	Dr.AKS/ Dr. AKG	Reproductive Botany	3. Study of embryo development in monocots and dicots. 4. Vegetative propagation by means of cutting, budding and grafting exercises.
18.02.2025	7	Dr.AKS/ Dr. AKG	Reproductive Botany	5. Study of seed germination. 6. Study of pollen morphology of the following plants –Hibiscus, Vinca, Balsam, Ixora, Crotalaria, Bougainvillea by microscopic observation.
24.02.2025	8	Dr.AKS/ Dr. AKG	Reproductive Botany	Calculation of pollen viability percentage using in vitro pollen germination technique
25.02.2025	8	Dr.AKS/ Dr. AKG	Herbarium:	Herbarium: Plant collecting, Preservation and Documentation: Stepwise Practicing Herbarium techniques: (a) FIELD EQUIPMENTS, Global Positioning System (GPS) instrument & Collection of any wild 25 plant specimens(b)Learn to handle Herbarium making tools (c) Pressing and

03.03.2025	9	Dr.AKS/ Dr. AKG		Drying of collected plant specimens (d) Special treatments for all varied groups of plants (e) Mount on standard herbarium sheets (f) Label them using Standard method (g) Organize them and give Index Register Number
04.03.2025			Taxonomic Identification using plant structure	Classify 25 plants on the basis of Taxonomic description (Plant Morphology, Anatomy, Reproductive parts, Habit, adaptation anomalies) according to Bentham and Hooker natural system of classification in the following families: Malvaceae,
10.03.2025	10	Dr.AKS/ Dr. AKG		Fabaceae (Papilionaceae),
11.03.2025	11	Dr.AKS/ Dr. AKG		Solanaceae,
17.03.2025				Solanaceae, Scrophulariaceae,
18.03.2025				Acanthaceae,
01.04.2025	12	Dr.AKS/ Dr. AKG		Acanthaceae, Labiatae (Lamiaceae),
07.04.2025	13	Dr.AKS/ Dr. AKG		Labiatae (Lamiaceae),
08.04.2025	14	Dr.AKS/ Dr. AKG		Rubiaceae.
15.04.2025	15	Dr.AKS/ Dr. AKG		Identification during excursions: (a) Conducting Spot identification (Binomial, Family) of common wild plants from families included in the theoretical syllabus (list to be provided) and making FIELD NOTE BOOK and filling Sample of a page of field-book, used in Botanical Survey of India.
21.04.2025	16	Dr.AKS/ Dr. AKG		Identification during excursions: (a) Conducting Spot identification (Binomial, Family) of common wild plants from families included in the theoretical syllabus (list to be provided) and making FIELD NOTE BOOK and filling Sample of a page of field-book, used in Botanical Survey of India.
22.04.2025	17	Dr.AKS/ Dr. AKG		Botanical Nomenclature & reporting Method: (a) Give nomenclature to collected plants as per ICN rules and prepare labels as per BSI
28.04.2025	18	Dr.AKS/ Dr. AKG		(b) Author Citation, Effective Publication and Principle of Priority: To show a specimen paper on Basic structure of a taxonomic Research published on a new species in taxonomic journal
29.04.2025	19	Dr.AKS/ Dr. AKG		SPOTING PARED