



H. D. Jain College, Ara

(A Constituent Unit of V. K. S. U, Ara)



4 Years Bachelor of Arts B.A. (Hons.) in Botany under CBCS

Course Outcomes (Major Courses)

S.No	UG Semester	Course	Course Outcomes
1.	I	MJC-1 (Psychology and Microbiology)	CO1: classify the plant kingdom CO2: Describe the diversity structure and importance of viruses and bacteria CO3: describe the general account of mycoplasma CO4: explain in thallus organization, economic importance and the life cycle of various algae
2.	II	MJC-2 (Bio molecules and Cell Biology)	CO1: describe the structure, properties and functions of bio molecules Co2: explain the classification properties and functions of enzymes Co3: describe cell wall, cell membrane and the structure and functions of cellular organelles Co4: explain the eukaryotic cell cycle, mitosis and meiosis
3.	III	MJC-3 (Mycology and Phytopathology)	Co1: develop an understanding about the thallus organization, nutrition, economic importance and life cycle of various fungi Co2: understand the terms, scope and importance of plant pathology Co3: describe the etiology, symptoms and control measures of plant diseases Co4: learn about various associations: Lichens and Mycorrhizae
4	III	MJC-4 (Archegoniate)	Co1: develop awareness about morphology, diversity and evolution of bryophytes, pteridophytes and gymnosperms Co2: compare the life cycle of various bryophytes, pteridophytes and gymnosperms Co3: understand the economic importance of the bryophytes and gymnosperms Co4: know the importance of studying fossils
5.	IV	MJC-5 (Morphology and Anatomy)	Co1: know the morphological characters of plants. Co2: understand the tissue system and the normal as well as anomalous secondary growth in plants Co3: learn about the structural adaptations in plants growing in different environmental conditions CO4: describe the structure and function of periderm
6	IV	MJC-6 (Economic Botany)	CO1: Create awareness about plants of economic importance CO2: know about their distribution patterns Co3: acquire skill in identification of medicinal plants Co4: learn about their cultivation and economic importance
7.	IV	MJC-7 ((Genetics)	Co1: understand Mendelian laws of inheritance and its variations Co2: know the details of mutations and their uses Co3: know about the sex determination and sex linked inheritance



H. D. Jain College, Ara

(A Constituent Unit of V. K. S. U, Ara)



8.	V	MJC-8 (Molecular Biology)	Co1: decipher the structures and chemical properties of DNA and RNA and their role Co2: understand various steps in transcription and translation in prokaryotes and eukaryotes Co3: know about gene regulation in prokaryotes and eukaryotes Co4: gain knowledge of modern biology techniques
9.	V	MJC-9 (Plant Ecology and Phytogeography)	Co1: knowledge of plant communities and ecological adaptations in plants Co2: understand about the soils on the basis of physical, chemical and biological components Co3: know about the types of pollution and their control measures Co4: get idea about the conservation of biodiversity, types and control of pollution phytogeographical regions of India and nonconventional energy
10.	VI	MJC-10 (Plant Systematics)	Co1: identify and classify the local flora Co2: know about the rules of ICBN Co3: awareness of different systems of plant classification Co4: preparation of herbarium and its importance
11.	VI	MJC-11 (Reproductive Biology of Angiosperms)	Co1: know about the sporogenesis and gametogenesis Co2: understand structure and functions of anther wall and pollen biology Co3: learn detailed study of double fertilization, endosperm and embryo Co4: comprehend the causes of polyembryony and apomixis
12.	VI	MJC-12 (Plant Physiology)	Co1: understand water relation of plants with respect to various physiological processes Co2: know about the mineral nutrition Co3: understand dormancy and germination in plants, learn about types and roles of phytohormones
13.	VII	MJC-13 (Plant Metabolism)	Co1: understand the anabolic and catabolic pathways of metabolism Co2: recognize the importance of carbon assimilation in photorespiration Co3: understand ATP synthesis in respiration Co4: interpret the biological nitrogen fixation
14.	VII	MJC-14 (Research Methodology of Faculty of Science)	CO1: Develop the skill of contextualization of knowledge and critical thinking CO2: Choose appropriate methods of research aims and objectives CO3: Apply ethical principle in research work. CO4: Understand the philosophy of research integrity and publication ethics.
15.	VII	MJC-15 (Recombinant DNA technology and Plant Biotechnology)	Co1: have knowledge about the core enzymes involved in Recombinant DNA Technology Co2: have knowledge about the different steps of Recombinant DNA technology Co3: understand the principle and basic protocols for plant tissue culture and its application Co4: know about the role of DNA and Plant Biotechnology as well as biosafety concerns of GMO



H. D. Jain College, Ara (A Constituent Unit of V. K. S. U, Ara)



16.	VIII	MJC-16 (Horticultural Practices and Post- harvest Technology)	Co1: understand the scope and importance of horticulture Co2: obtain knowledge of different fruits, vegetables and ornamental plants. Co3: know the basics of horticulture practices for fruits vegetables and ornamental plants Co4: understand the importance of post-harvest technology
-----	------	---	---