

**CURRICULUM AND ITS RELEVANCE TO LOCAL /NATIONAL
/REGIONAL/GLOBAL NEEDS**

M.Sc. Botany Syllabus

Paper Code	Paper Name	Relevance (Global/National/Regional)	Description
101	Microbiology (Bacteria, Viruses, and Lichens)	Global & National	Studies microbial diversity, their ecological roles, and applications in biotechnology and medicine.
102	Phycology	Global & Regional	Examines algae, their classification, ecological importance, and potential applications in biofuels and industry.
103	Mycology	Global & National	Focuses on fungi, their taxonomy, physiology, and roles in environment, agriculture, and industry.
104	Bryology and Pteridology	Regional & Global	Studies mosses, liverworts, ferns, and their role in ecosystems and conservation efforts.
201	Gymnosperms and Palaeobotany	Global	Explores ancient plant life, fossil records, and the evolution of seed plants.
202	Taxonomy of Angiosperms	Global & National	Covers classification, identification, and conservation of flowering plants.
203	Plant Morphology, Anatomy, and Embryology	National & Regional	Analyzes plant structures, growth patterns, and reproductive biology.
204	Cell and Molecular Biology	Global	Investigates cellular structure, genetic regulation, and molecular mechanisms.
301	Plant Ecology	Global & Regional	Examines plant-environment interactions, ecosystems, and biodiversity conservation.
302	Cytogenetics and Plant Breeding	National & Global	Focuses on genetic principles and breeding techniques for crop improvement.

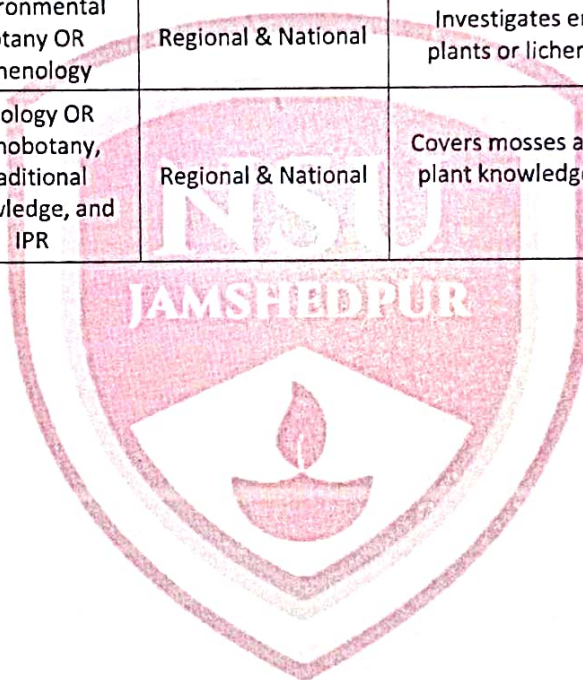


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Elective-1	Plant Biotechnology OR Computer Application	Global	Covers genetic engineering applications or computational tools for biological research.
Elective-2	Forest Ecology OR Plant Pathology	National & Regional	Studies forest ecosystems or plant diseases and their management.
401	Plant Physiology and Biochemistry	Global & National	Explores metabolic processes and biochemical pathways in plants.
402	Plant Resource, Utilization, and Conservation	Global & Regional	Discusses sustainable use and conservation of plant resources.
Elective-3	Environmental Botany OR Lichenology	Regional & National	Investigates environmental impacts on plants or lichens' ecological significance.
Elective-4	Bryology OR Ethnobotany, Traditional Knowledge, and IPR	Regional & National	Covers mosses and liverworts or traditional plant knowledge and intellectual property rights.

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