

Master of Science (M.Sc.) – Botany — Common Syllabus

Duration: 2 years (4 semesters) | Evaluation: Theory exams, Practicals, Fieldwork, Dissertation

Course Structure

- Duration: 2 years (4 semesters).
- Each semester includes core theory papers, practicals, and electives.
- Credits: Typically 3–4 per paper.
- Evaluation: Written exams, internal assessments, field work, and dissertation/project work.

Semester I — Suggested Papers

- Phycology and Mycology
- Bryology and Pteridology
- Microbiology and Plant Pathology
- Plant Anatomy and Reproductive Biology
- Practical – Based on Theory Papers

Semester II — Suggested Papers

- Gymnosperms and Paleobotany
- Taxonomy of Angiosperms and Biosystematics
- Genetics and Plant Breeding
- Cell Biology and Molecular Biology
- Practical – Based on Theory Papers

Semester III — Suggested Papers

- Plant Physiology and Biochemistry
- Ecology and Environmental Biology
- Plant Biotechnology and Genetic Engineering
- Instrumentation and Research Methodology
- Elective Paper / Field Study / Seminar

Semester IV — Suggested Papers

- Plant Developmental Biology
- Economic Botany and Ethnobotany
- Biostatistics and Bioinformatics
- Project / Dissertation / Viva Voce
- Elective Paper – (Applied Botany / Pharmacognosy / Forestry)

Electives (Indicative List)

- Applied Botany
- Medicinal Plants and Pharmacognosy
- Forestry and Conservation Biology
- Horticulture and Floriculture
- Plant Tissue Culture and Industrial Botany
- Mycorrhizal Biotechnology

Notes:

- This syllabus is based on the UGC model curriculum and leading Indian university syllabi for M.Sc. Botany.
- Each paper generally carries 100 marks, with a 70:30 split between external and internal evaluation.
- Students are required to complete field studies, herbarium work, and a dissertation project in the final semester.
- Practical examinations include experiments, slide preparation, and viva voce.

Prepared by: ChatGPT — Common M.Sc. Botany Syllabus Template

Date: October 7, 2025