



# Programme Outcome

## Subject: Botany

### **Programme Outcome of Botany from Academic Year 2016-17 to 2018-19 for Second Year Students**

The Botany program outcomes involve a deep understanding of plant diversity and classification. Students will explore the basics of bryophytes, focusing on the life cycles of Riccia and Funaria, and delve into pteridophytes with detailed studies of Selaginella and Adiantum. They will gain expertise in plant taxonomy, including systems of classification and the study of plant families. Practical skills will be developed through hands-on experience in botanic gardens and herbarium techniques, facilitating the collection, preservation, and identification of plant specimens. This knowledge equips students to contribute effectively to botanical research, conservation, and education.

### **Programme Outcome of Botany from Academic Year 2019-20 to 2023-24 for Second Year Students**

The Botany program outcomes encompass a comprehensive understanding of plant biology through both theoretical and practical approaches. Students will grasp the structure and function of plant tissues, including protective, primary, and secondary tissues, and understand secondary growth mechanisms. They will learn about reproductive structures such as microsporangium (anther) and megasporangium (ovule), and processes like pollination, fertilization, and endosperm formation. Practical skills will include observing and analyzing plant tissues and reproductive structures, studying the development of embryos, and exploring phenomena such as apomixis and polyembryony. This foundation enables students to apply botanical knowledge in research, agriculture, and environmental science.


### **Programme Outcome of Botany from Academic Year 2018-19 to 2021-22 for First Year Students**

The Botany program outcomes encompass a thorough understanding of plant contributions to human welfare. Students will explore food plants, spices, condiments, oils, fibers, non-alcoholic beverages, and medicinal plants, along with bio-energy sources. They will gain knowledge of fungal classification according to G.M. Smith (1955), including studying life cycles of Rhizopus and Agaricus, and understanding fungi's economic importance. Additionally, students will learn about lichens and plant pathology. Practical skills include analyzing fungal life cycles, understanding their roles in ecosystems and economies, and

applying this knowledge to solve plant-related challenges, preparing students for roles in research, agriculture, and biotechnology.

### **Programme Outcome of Botany from Academic Year 2022-23 to 2023-24 for First Year Students**

The Botany program outcomes provide a robust understanding of microbial and plant diversity. Students will study various microorganisms, including viruses, bacteria, algae, fungi, lichens, and mycorrhiza, gaining insights into their classification and ecological roles. They will learn about taxonomic hierarchy and the classification of plant families, focusing on systematic positions, general and distinguishing characteristics, and economic significance. Practical experience includes working with botanical gardens and herbariums, where students will refine their skills in plant collection, preservation, and identification. This comprehensive approach equips students with the knowledge and skills necessary for research, conservation, and applied botanical sciences.



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