

# **BOTANY**

## **Program Outcomes (POs):**

### **Student Should be able to,**

**PO1-** Apply the knowledge and concepts of Life science and its fundamental principles and to

identify, analyse and find solutions to various plant science problems.

**PO2-** Identity, hypothesize, and review available research literature, and analyse complex biological issues reaching substantiated conclusions using knowledge of biodiversity, environment, and biological functioning.

**PO3-** Develop scientific temperament, an ability to merge, interconnect and extrapolate information and knowledge across various streams.

**PO4-** Ability to decide appropriate technology and tools to solve problems. Understand the availability, of resources, their judicious use, and the execution of the project in sustainable way.

**PO5-** Design solutions for complex scientific problems and design processes that meet the specified needs with appropriate consideration for agricultural practices, societal health and wellness, conservation of endemic and rare plant species, cultural, societal, legal, constitutional and environmental considerations.

**PO6-** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO7-** Communicate effectively on complex scientific activities with the science community and with society at large, such as, being able to comprehend and write effective reports and design documents, make effective presentations, and give and receive clear instructions.

**PO8-** Demonstrate knowledge and understanding of the scientific principles and apply these to one's own work, as a member and leader in a team, to manage projects and in

multidisciplinary environments.

**PO9-** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of scientific developments, technological advancements and global changes.

**PO10-** Value and foster Physical, Physiological and Psychological well-being through personal practice and conduct. Ability to apply the learnings for a lifelong commitment to ethics in fulfilment of professional and social obligations.

**PO11-** Apply academic learning to promote higher studies, sustainable living through employment, and initiation of entrepreneurial advent to create opportunities and wealth for self and society.

**PO12-** Value and support social causes and rural development through service and philanthropic activities.

### **PROGRAMME SPECIFIC OUTCOMES (PSO):**

**Student Should be able to,**

**PSO1:** Explain different specialization of Botany such as Plant systematic, evolution, ecology, physiology, biochemistry, morphology anatomy, reproduction, genetics, cell and molecular biology of plants.

**PSO2:** Apply analytical techniques of plant biology, use of plants as industrial resources or as support system for human livelihood and will be well versed with the use of transgenic technologies for both basic research in plants.

**PSO3:** Identify various life forms of plants, design and execute experiments related to basic studies on evolution, ecology, developmental biology, physiology, microbiology, anatomy, recombinant DNA technology, Students are also familiarized with the use of common laboratory techniques like: - biological microscopic objects, histological and histochemical staining techniques bio-informatics tools and databases and in application of statistics to biological data.

**PSO4: Apply** Ethnobotanical knowledge of medicinal plants in traditional treatment using indigenous plants and methods.