M.Sc. BOTANY

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO 1 Develop and promote interest, participation and commitment in the subject Botany by conceptual understanding of principles of Botany.

Enable the students to be resourceful in identifying the plants both growing naturally and the specimen of the lab.

Various courses of the programme are carefully designed in order to prepare the students for competitive exams like CSIR NET, SET, GATE etc.

The courses taught and the hands -on -training gained by students during practicals of courses equip the students to write value based research proposals for grants.

PSO 2 A student completing the course is able to understand and link different core branches of Botany such as systematics, taxonomy of various life forms, biodiversity, ecology, developmental biology, physiology, biochemistry, plant interactions with microbes and insects, anatomy, reproduction, genetics, plant tissue culture and molecular biology.

With the gained knowledge and understanding student will be able to systematically classify and link salient features of different plant groups and microbes.

Knowledge of ethanobotany will help student in deducing and evaluating concepts and importance of our traditional medicinal system.

The understanding and training on Biofertilizer technology will equip students with concepts on benefits of biofertilizers in crop improvement as well as improvement of soil health.

Student will understand and evaluate biodiversity in correlation to habitat, climate change, land and forest degradation and can trace the evolution of plants through Paleobotany.

PSO 3 Benefited with their knowledge on cytogenetics, recombinant DNA technology, application of biostatistics, analytical techniques, plant tissue culture, phytochemistry, karyotyping and chromosome mapping, microscopy and chromatography etc. student can speculate and draw inferences from the biological data.

PSO 4 Develop an understanding of application of Botany in fields like Agriculture through study of plant pathology and Genetic Engineering.

Understand Molecular and Physiological adaptations in plants in response to biotic and abiotic stress and genes responsible for stress tolerance genetic engineering of plants.

The students will also gather the role of botany in environmental cleanup, forestry, floriculture, pharmaceutical industry, etc.

PSO 5 With the detailed understanding **of** the multi functionality of plant cells, student can perform experiments in production of fine chemicals and their wide spread industrial applications.

PSO 7 Perform procedures as per laboratory standards in the areas of Biochemistry, Anatomy, Breeding procedures for hybridization, Biofertilizer Technology, Taxonomy, Economic Botany, Cell Biology, Reproduction and Ecology. This would help them create, select and apply appropriate techniques, resources and modern technology in multidisciplinary way and design experiments, analyze and interpret data to reach to an effective conclusion.

PSO 8 Understand the issues of environmental contexts and sustainable development. Student will become aware of natural resources and environment and the importance of conserving it.

PSO 9 Carry out innovative research projects through best problem-solving skills thereby making them to use knowledge in depth.

PSO 10 Project, Seminar and Dissertations would build up research aptitude among the students. The objective is to train and persuade students in basics of research, literature study, analysis and interpretation of research topic and expression of their understanding of the topic in their own words. This would help develop entrepreneurial skills in them.