Progressive Education Society's

Modern College of Arts, Science and Commerce (Autonomous),

Shivajinagar, Pune – 411005

Department of Botany

Program Outcomes (POs)

Programme: M. Sc. Botany

After successful completion of M.Sc. Botany, the student will be able to:

PSO No	Program Outcomes (POs)
PSO 1	**i. Knowledge or Academic Expertise** ii. Understand the fundamental principles of Botany, including systematics, evolution, ecology, physiology, biochemistry, plant pathology, morphology, anatomy, genetics, plant breeding, and molecular biology of various life-forms, as well as related interdisciplinary subjects such as biotechnology, bioinformatics, and biostatistics. iii. develop the capacity to identify important plant groups and plant forms, as well as their ecological and economic significance iv. gain practical skills in gathering, analyzing, and interpreting data on the structures and functions of plant forms v. Use the concepts, methodology and applications of plant improvement and work in seed industry as Technician and Assistant Plant Breeder. vi. apply the knowledge of the to formulate scientific questions and solve challenges affecting human wellbeing. vii. apply the knowledge of basic principles of plant sciences and vital processes of plants to research and analyses plant forms. viii. use of bioinformatics tools and databases and in the application of statistics to biological data. ix. identify various life forms of plants, design and execute experiments related to basic studies on evolution, ecology, developmental biology, physiology, biochemistry, plant interactions with microbes and insects, morphology, anatomy, reproduction, genetics, and transgenic technology. Students are also familiarized with the Use of analytical and computational skills in solving difficulties in basic and intermediate botany.
PSO 2	**Inquisitive learner or involved in Lifelong learning** i. Continue self-study to keep up with the rising competition for further education and employment.
PSO 3	**Social competence** i. Many of the activities used to learn Botany necessitate collaboration. As a result, the students will acquire good interpersonal communication skills, how to respect the opinions of others in the team, and how to work together to fulfill the tasks.
PSO 4	**Effective Communication**

	i. Use clear and effective language to express his or her thoughts and ideas on contemporary botany issues.
PSO 5	**Environmental awareness** **i.** Identify the roles of diverse plant groups in various ecosystems, as well as the effects of natural and anthropogenic activities on them. Students will be able to propose solutions to a variety of concerns relating to the environment.
PSO 6	**Digital competence** i. Develop digital skills and link core principles with modern plant science technologies. ii. The students will be able to apply their computational skills to manage biological data, solve problems, and make recommendations based on mathematical models.
PSO 7	**Experiential Learning** i. Students will be able to observe real-time procedures and practises utilized in many businesses based on Botany during several visits to study plants and ecosystems, industries, and laboratories. When students begin working in industries, it will be useful to them.
PSO 8	**Ethical values** i. Demonstrate and apply social, environmental, and biological ethics.
PSO 9	**Stress management** i. Learn to handle their stress properly as Botany is a subject regarding plants and their roles in many ecosystems, many activities, such as gardening, landscape management, nature walks, nature photography, investigating the vegetation around us, and appreciating the beauty of nature, can successfully help in stress management.
PSO 10	**Extramural Skills** i. Assist society in comprehending the value of plants, gardens, woods, and various ecosystems, as well as their involvement in our daily lives. ii. Encourage people to become more connected to nature by promoting organic farming and the value of organically produced agricultural goods. iii. Raise public awareness about the need of rare and endangered plant protection in their area, as well as the procedures for doing so. iv. Make people aware of harmful activities involving plants and ecosystems and provide alternatives for long-term growth.