



B. Sc. Botany

Vision

Inculcate fundamental knowledge of the plant sciences that will transform the understanding about the planet earth, providing holistic approach on innovative teaching, entrepreneurship skills and research with social ethics that reaches the society with a focus on plants and their role in balancing and protecting the Environment.

Mission

- Our mission is to foster an ambience of distinction by attracting and supporting the outstanding students, faculty and staff needed to sustain our vision.
- Provision of knowledge that bestows academic environment that contribute towards creating socially responsible citizens who have adequate skills in reflective thinking, leadership, team play, scientific temper with lifelong learning affinity.
- Create a stimulating environment that facilitates intellectual growth of students; provide students with the time and freedom to experience 'powerful pedagogies' such as research, service-learning and internships; encourage students with scientific approach to learning.
- To foster an environment of excellence by providing a comprehensive set of courses in Botany that enhances the understanding, fundamental and in-depth knowledge and technical competency.
- To inculcate the students with an environment that fosters nature conscious stewardship responsibility and Entrepreneurial skill development, multidisciplinary research competency through interdisciplinary learning and teaching positions in biological science.

Programme Outcomes

1. Comprehend Knowledge on Basic concepts, development and application aspects of Plant Science.
2. Interpret the scientific classifications for better understanding, conservation and identifying plants around us.
3. Discuss the importance of plants in the modern life science, aero science and energy needs of humans. Graduate will reiterate the plants as core essentials to maintain the life on earth.
4. Make use of the hands-on experience acquired in fundamental botany, advanced biotechnological methods and in vitro studies to promote new variants in crop plants and for environmental development.
5. Analyse the plant-microbial-animal and environmental interactions for sustainable development.
6. Evaluate the potentialities of green wealth by incorporating other branches of science to utilize it for the society.
7. Develop technical skills in expression, team work, Informatics, and report botanical values of plants through lifelong investigation and dissemination of learning.
8. Formulate phytochemicals, evaluate the plant resources for the welfare of human life, report on the genetic engineering, bio-war, bioethics in designing experiments and maintain the proper functioning of the natural ecosystem.
9. PO9- Defend ethical and socio-ecological values of nature and appraise the significance of plants in the wellbeing of environment.

Programme Specific Outcomes

1. Analyse the theories in Plant science, development of plants, their adaptations and strategy for conservation and interaction of plants to the abiotic components and nutrient cycling in the environment.
2. Classify the plants scientifically, attain knowledge on the systematics, evolution of plants from lower to higher forms and their interrelationships and the economic importance of various plants and plant-based traditional drugs.
3. Interpret the scope of plant biodiversity Algae, Fungi, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms, their Physiological process (photosynthesis, respiration, multiplication, environmental responses), ecological, biochemical, cytological and molecular interactions on plants.
4. Evaluate the phytochemicals and develop skills on nursery management, herbarium development, handling microscopes, sketching the anatomical structures of plants. Execute the facts of plant growth, their physiological- hormonal and enzymatic actions in the growth and development of plant.



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Programme Outcomes

1. Acquire comprehensive understanding about plants in various environment, their interactions and influence with the ecosystem.
2. Compile the identification and systematics of plants up to species level using the floras and solve problems related to taxonomy of plants.
3. Perceive information on advanced biological techniques, proteomics, cellular communication and able to resolve the floral genetic problems quantitatively.
4. Develop skills in data collection, group work communication, new variant determination, utilizing the information technology to justify the resources to the maximum.
5. Select appropriate plant variety for the land and evaluate antagonistic and symbiotic interactions of plant to the environment.
6. Analyse the green wealth using profound insight in the field of agriculture, mushroom culture, aero science, biotechnology, pathology and human diseases.
7. Evaluate phytochemical properties among plants and explain scientifically to the community promoting a life-long learning.
8. Justify the importance of plants as the basic components in the earth, their role in maintaining balance in nature from overexploitation, destruction and inculcate stewardship responsibility.
9. Identify and conserve the indigenous flora and report on the potentialities of traditional and combination drugs using the Plants.

Programme Specific Outcomes

1. Examine the various plant forms, vegetative structures, developmental- evolutionary pattern in plants and importance of plants in day today life.
2. Compile phytochemicals incorporating ethno-traditional medicines and design new methods for drug discovery, floral formulations using the bio-informatic tools, systematic identification of plants and solve problems related to IPR.
3. Analyse the nucleotide sequencing, metabolomics, inter- intracellular signalling in plant and Microbes. Interpret the genetic principles, variations, in plant-microbe-animal heredity and protect indigenous varieties by defending the encroachment of pests, invaders and expatriate crops.
4. Interpret the plant genus by their anatomical, physiological and ecological functions correlating with the physical, chemical forces of nature and make use of in-vitro propagation in plants, evaluate the ecosystem variance, net production and conservation strategies for the ecosystem.