Department of Botany

M.Sc. Botany

Programme Outcomes

Masters of Science is a two year programme which imparts theoretical and experimental learning. Students after completing M.Sc. (Botany) are expected to become equipped with the subject knowledge along with practical and technical skills.

Program Specific Outcomes

- Students will be able to identify and classify plants on the basis of their morphology, anatomy and physiological characteristics features.
- Students will be able to understand the relationship between plants and human welfare with potential uses of plants and also various selection strategies for the development of new plant varieties.
- Students will be skilled in implementing various conservation strategies for the sustainable development of natural resources.
- Students will be able to understand and relate physical features of environment to the structure of population, communities and ecosystem.
- Students will be acquitted with basic techniques in research methodology.
- Students will be skilled in fundamental knowledge of plant forms at genetic and biochemical level.

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Course Outcome

S.No	COURSE NO.	SUBJECT NAME	OUTCOME
		Semester I	
1.	I	Biology And Diversity of Algae and Fungi	Students will have knowledge about classification, morphology, life cycles, and various reproductive characteristics and economic importance of Alage and Fungi. It also makes students aware about Lichens and their economic importance.
2.	II	Biology And Diversity of Microbes And Plant Pathogens	This course enables students to understand the world of microbes and to understand economic and pathological importance of them. It may also make students to identify common plant diseases and to control them at their own level.
3.	III	Biology And Diversity of Bryophytes and Pteridophytes	Students will be able to understand the classification, morphology, anatomical and development patterns in Bryophytes and Pteridophytes. This course also enables students to understand various economic and ecological importances of these plants.
4.	IV	Plant Resource Utilization and Breeding	Course familiarizes students with the various varieties of plants used by humans for food, fibre, wood, cork, timber, ornamental purposes, beverages and medicine. This course also develops the skills of students in crop specific plant breeding and selection strategies for development of new varieties.
		SEMESTER II	
5.	V	Cell and Molecular Biology	Course enlightens students with knowledge of structural and functional properties of the cell and its components at structural and molecular level. It help student to understand various processes associated at molecular level.
6.	VI	Biostatistics & Computer Applications (COMMON COURSE)	The course emphasizes on the computer applications in biology. This allows students to develop and expand their skills in data handling related to real world practices.
7.	VII	Biology And Diversity of	Course enhances the knowledge of students

		Gymnosperms	about classification, morphological features, anatomy and reproductive characteristics of Gymnosperms. It also emphasize on cytology, evolution and economic importance of Gymnosperms.
8.	VIII	Biology And Diversity of Angiosperms I	The course emphasizes to understand the system of nomenclature, classification of angiosperms and interdisciplinary approaches. By this students are able to identify various members of the major angiosperm families on the basis of their morphological and anatomical features.
SEMESTER III			
9.	IX	Cytogenetics and Evolution (Common Course)	Course enables students to understand structure and role of chromosomes in heritability and mutation. It allows them to understand laws of genetics and its role in variability and heritability of characters. Students will also be able to study origin and evolution of species at genetic and molecular level.
10.	X	Immunology and Biotechnology (Common Course)	Course enables students to understand complex nature of immune system and its role in protection of human body from various microbial and pathological infections. Secondly it emphasize on the modern techniques and applications of biotechnology.
11.	XI	Biology and Diversity of Angiosperms II	Students are acquainted with detailed internal and external structures of various parts of flower. It also highlights the reproductive development of plants parts. Course also emphasize on various tissue culture technique used in plant sciences.
12.	XII	Plant Physiology	This course imparts an insight into the various plant internal functioning. By this students are able to understand mechanism of various metabolic processes in plant. It may enhance student's skill and techniques related to plants physiology so that they can design their own experiments.
SEMESTER IV			
13.	XIII	Biochemistry (Common Course)	Course enables students to study important biomolecules -carbohydrate, fats, and proteins their chemical structure, functions and various biochemical processes

			associated with their metabolism.
14.	XIV	Ecology (Common Course)	This course pays emphasis upon relation of organisms with biotic and abiotic environment. Students will be aware about various components of environment and their interaction and the conservation methods of biodiversity and sustainable uses of Natural resources.
15.	XV	**Special Paper** (1. Advanced Topics in Mycology 2. Advanced Topics in applied Microbiology 3. Advanced Topics in Plant Pathology 4. Wood Sciences, Forest Biodiversity and Plant Resources 5. Biodiversity, Bioprospecting, Ethnobotany and Sustainable Utilization of Plant Resources 6. Plant Reproduction, Tissue Culture and Horticultural Sciences 7. Advanced Plant Physiology and Biochemistry)	Emphasis is given to hands on exposure and skills enhancement in the particular course. Students are also encouraged to prepare various projects, reports and herbarium.