Department: - B.Sc. (Botany)

Bachelor of Science
Programme Outcomes (POs)

PO1: Knowledge:- Acquire the knowledge with fact and recognize the underlying ideas, guiding principles, mathematical formulations, experimental results, and scientific theories relating to physics, chemistry, mathematics, zoology and botany and other program-related subjects.

PO2: Skills:- Become proficient with using scientific methods, skills of observation, and the ability to derive logical conclusions from scientific experiments.

PO3: Modern Tools Usage:- Utilize cutting-edge devices, tools, and lab techniques to conduct experiments and create computer programmes in many languages.

PO4:Creativity & Analysis:- Demonstrate in-depth analytical and critical thinking skills to recognize, frame, and resolve engineering and science challenges that exist in the actual world.

PO5: Communication: - Strengthen written and verbal communication skills to effectively communicate design, analysis, and research findings.

PO6: Ethics & Environment: - Incorporate ethical, moral, and social ideals into daily living and improve the future, raise public knowledge about the environment and promote sustainability.

PO7: Individual & Team Work: - Function effectively as an individual and take the lead in a variety of field-based situations involving science, technology, and society at large.

PO8: Self-directed and Life-Long learning: - Possibility of being self-driven, which involves paying attention to ideas and goals throughout one's life in order to explore, learn, and acquire new abilities in order to improve one's quality of life and sense of worth.

Course Outcomes (CO)

SEMESTER-I

COURSE CODE: USBOT101
COURSE NAME: Plant Diversity I

After successful completion of this course, students will be able to:	
CO-1	Understand the diversity among Algae
CO-2	Know the systematic, morphology and structure of Algae and understand the life cycle pattern of Algae.
CO-3	Understand the useful and harmful activities of Algae.
CO-4	Understand the morphological diversity of Bryophytes and its importance
CO-5	Understand the Biodiversity of Fungi and its importance

COURSE CODE: USBOT102
COURSE NAME: Form and Functions I

After successful completion of this course, students will be able to:	
CO-1	Understand the Biochemical nature of cell
CO-2	Know the chemical nature of biomolecules
CO-3	Understand the different types of interaction in Biomolecules
CO-4	Structure and general features of enzymes also Concept of enzyme activity and enzyme inhibition
CO-5	To study the phenomenon of dominance, laws of segregation, independent assortment of genes

SEMESTER-II

COURSE CODE: USBOT 201
COURSE NAME: Plant Diversity I

After successful completion of this course, students will be able to:	
CO-1	Understand the morphological diversity of Pteridophytes and Gymnosperms
CO-2	Understand the economic importance of the Pteridophytes and Gymnosperms
CO-3	Know the evolution of Pteridophytes and Gymnosperms
CO-4	Understand the habit of the angiosperm plant body
CO-5	Know the vegetative characteristics of the plant

COURSE CODE: USBOT 202
COURSE NAME: Form and Functions I

After successful completion of this course, students will be able to:	
CO-1	The anatomy of the plants
CO-2	Learn about Simple and Complex tissues
CO-3	Primary structure and organization of dicot and monocot root, stem and leaf
CO-4	Physiology of Plant: Light and Dark reactions
CO-5	Medicinal Botany of different plants

SEMESTER-III

COURSE CODE: USBOT301
COURSE NAME: Plant Diversity II

After successful completion of this course, students will be able to:	
CO-1	Understand the diversity among Algae
CO-2	Understand the morphological diversity of Bryophytes
CO-3	Become aware of applications of different plants in various industries
CO-4	To equip the students with skills related to Modern laboratory Techniques as well as industries based studies
CO-5	Know the details of Microscopy- Principles of light microscopy, electron microscopy (TEM and SEM).

COURSE CODE: USBOT 302
COURSE NAME: Form and Functions II

After successful completion of this course, students will be able to:	
CO-1	Know the ultra-structure and functions of different cell organelles
CO-2	Structure and types of DNA and RNA
CO-3	Understand the biochemical nature of nucleic acids, their role in living systems, experimental evidences to prove DNA as a genetic material
CO-4	Understand the process of synthesis of proteins and role of genetic code in polypeptide formation
CO-5	Understand about variation in chromosome, Sex determination, Sex linked , Sex influenced and Sex limited traits

COURSE CODE: USBOT 303
COURSE NAME: Current Trends in Plants Sciences-I

After successful completion of this course, students will be able to:	
CO-1	Know the scope and importance of Photochemistry and Pharmacognosy
CO-2	Understand the adulteration in different plants products
CO-3	To know the forestry and Economic botany and type of fibres and spices
CO-4	Gain knowledge about various plants of economic use
CO-5	Understand the chemical contents of the plant products

SEMESTER-IV

COURSE CODE: 401
COURSE NAME: Plant Diversity II

After successful completion of this course, students will be able to:	
CO-1	Understand the morphological diversity of Pteridophytes and Gymnosperms
CO-2	Understand the economic importance of the Pteridophytes and Gymnosperms
CO-3	Know the systematic, morphology and structure of Algae
CO-4	Know the scope of Paleobotany, types of fossils, its role in global economy and geological time scale.
CO-5	Understand the various fossil genera representing different fossil groups

COURSE CODE: USBOT 402
COURSE NAME: Form and Functions II

After successful completion of this course, students will be able to:	
CO-1	Understand plant communities and ecological adaptations in plants.
CO-2	Know the concept of methodology in taxonomy
CO-3	Learn about conservation of biodiversity, Non-conventional Energy and Pollution
CO-4	Discover botanical regions of India and vegetation types of Maharashtra
CO-5	Gain knowledge about "Cell Science" in terms of plant physiology and plant biochemistry

COURSE CODE: USBOT 403
COURSE NAME: Current Trends in Plant Sciences I

After successful completion of this course, students will be able to:	
CO-1	Understand the science of plant tissue culture
CO-2	Study about Horticulture and Branches of Horticulture and Types of gardens: Formal and Informal gardens and the principle and basic protocols for Plant Tissue Culture
CO-3	To gain knowledge of Biostatistics (Chi square and Correlation) and Information technology, Data organization , tools of bioinformatics, web search, data retrieval, BLAST
CO-4	Bioinformatics tools in India
CO-5	Understand the principle and basic protocols for Plant Tissue Culture