DEPARTMENT OF BOTANY
COURSE OUTCOMES

First Year					
S. No	Subject	Course Code	Course name	CO Number	Course Outcomes
SEMESTER 1	BOTANY	BOT1SK	**Fundamentals of Microbes and Non-vascular Plants**	1	Explain origin of life on the earth
				2	Illustrate diversity among the viruses and prokaryotic organisms and can categorize them.
				3	Illustrate diversity among the viruses and prokaryotic organisms and can categorize them.
				4	Analyze and ascertain the plant disease symptoms due to viruses, bacteria and fungi.
				5	Recall and explain the evolutionary trends among amphibians of plant kingdom for their shift to land habitat.
				6	Evaluate the ecological and economic value of microbes, thallophytes and bryophytes.
SEMESTER 2	BOTANY	BOT2SK	**Basics of Vascular plants and Phytogeography**	1	Classify and compare Pteridophytes and Gymnosperms based on their morphology, anatomy, reproduction and life cycles
				2	Justify evolutionary trends in tracheophytes to adapt for land habitat.
				3	Explain the process of fossilization and compare the characteristics of extinct and extant plants.
				4	Critically understand various taxonomical aids for identification of Angiosperms.
				5	Analyze the morphology of the most common Angiosperm plants of their localities and recognize their families.
				6	Locate different phytogeographical regions of the world and India and can analyze their floristic wealth.

Second Year

S. No	Subject	Course Code	Course name	CO Number	Course Outcomes
SEMESTER 3	BOTANY	BOT3SK	**Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity**	1	Understand on the organization of tissues and tissue systems in plants.
				2	Illustrate and interpret various aspects of embryology.
				3	Discuss the basic concepts of plant ecology, and evaluate the effects of environmental and biotic factors on plant communities.
				4	Appraise various qualitative and quantitative parameters to study the population and community ecology
				5	Correlate the importance of biodiversity and consequences due to its loss.
				6	Enlist the endemic/endangered flora and fauna from two biodiversity hot spots in India and assess strategies for their conservation.
SEMESTER 4	BOTANY	BOT4SKA	**Plant Physiology and Metabolism**	1	Comprehend the importance of water in plant life and mechanisms for transport of water and solutes in plants.
				2	Evaluate the role of minerals in plant nutrition and their deficiency symptoms.
				3	Interpret the role of enzymes in plant metabolism.
				4	Critically understand the light reactions and carbon assimilation processes responsible for synthesis of food in plants.
				5	Analyze the biochemical reactions in relation to Nitrogen and lipid metabolisms.
				6	Examine the role of light on flowering and explain physiology of plants under stress conditions.
	BOTANY	BOT4SKB	**Cell Biology, Genetics and Plant Breeding**	1	Distinguish prokaryotic and eukaryotic cells and design the model of a cell.
				2	Explain the organization of a eukaryotic chromosome and the structure of genetic material.
				3	Demonstrate techniques to observe the cell and its components under a microscope.
				4	Discuss the basics of Mendelian genetics, its variations and interpret inheritance of traits in living beings
				5	Elucidate the role of extra-chromosomal genetic material for inheritance of characters.
				6	Understand the application of principles and modern techniques in plant breeding.

Third Year					
S. No	Subject	Course Code	Course name	CO Number	Course Outcomes
SEMESTER 5	BOTANY	BOT5SKE	**Plant Tissue Culture**	1	Comprehend the basic knowledge and applications of plant tissue culture
				2	Identify various facilities required to set up a plant tissue culture laboratory.
				3	Acquire a critical knowledge on sterilization techniques related to plant tissue culture.
				4	Demonstrate skills of callus culture through hands on experience.
				5	Understand the biotransformation technique for production of secondary metabolites.
	BOTANY	BOT5SKF	**Mushroom Cultivation**	1	Understand the structure and life of a mushroom and discriminate edible and poisonous mushrooms.
				2	Identify the basic infrastructure to establish a mushroom culture unit.
				3	Demonstrate skills preparation of compost and spawn.
				4	Acquire a critical knowledge on cultivation of some edible mushrooms
				5	Explain the methods of storage, preparation of value-added products and marketing.