

Department of Botany
Course Outcomes of B.SC Botany

S.No.	Course Title	Course Code	Nature of Course and Year	Co's	Course Outcome
1	Biodiversity (Microbes ,Algae,Fungi and Archegoniatae)	BOTA 101	Discipline Specific Course (DSC) First Year	CO1	The students will gain Knowledge of Algae, Fungi, Microorganism, Bryophytes, Pteridophytes and Gymnosperms
				CO2	Develop conceptual skill for identification of these group of plants and microorganisms.
				CO3	It gives the students knowledge about the structure, reproduction and economic value of these lower group of plants.
				CO4	The students will learn about the early land plants and the evolution of stele and origin of seed habit in plants.
				CO5	It helps in understanding the medicinal, industrial and ecological importance of these important lower group of plants.
2	Plant Ecology and Taxonomy	BOTA 102	Discipline Specific Course (DSC) First Year	CO1	It helps in understanding the various processes and phenomenon related to ecology and environment.
				CO2	The students will gain Knowledge about various concepts in plant taxonomy and botanical nomenclature.
				CO3	It provide the information about the older and modern classification systems of angiosperms.
				CO4	The students will develop skills about the identification of angiospermic plants.
				CO5	It gives the students knowledge about the herbarium preparation , botanical gardens and their use in form of tools for plant identification.
3	Plant Anatomy and Embryology	BOTA 201	Discipline Specific Course (DSC) Second Year	CO1	This course deals with the study of basic internal organization of various plant parts, different tissues and secondary growth in plants.
				CO2	It helps to understand the detailed structure of flower and its various parts.
				CO3	The students will learn about the mechanism of pollination , double fertilization, embryo and seed development and polyembryony.
				CO4	The students will get knowledge about the various adaptations found in plants.
4	Plant Physiology and Metabolism	BOTA 202	Discipline Specific Course (DSC) Second Year	CO1	It provides the knowledge about the various physiological life processes occurring in plants.
				CO2	The students can understand the detailed mechanisms of Photosynthesis, Respiration and translocation in plants.
				CO3	It helps in understanding the role of various hormones, signaling compounds, thermodynamics and enzyme kinetics.
				CO4	Students will gain knowledge about the various mechanisms such as channel or transport roteins involved in nutrient uptake in plants.
5	Biofertilizers	BOTA 203	Skill Enhancement Course (SEC) Second Year	CO1	It will introduce the students about the biofertilizers and their advantages over chemical fertilizers.
				CO2	The students will develop skills about the preparations of different types of biofertilizers by using microorganisms such as Rhizobium, Azospirillum, Frankia and Cyanobacteria.
				CO3	The students will gain knowledge about the green manuring, organic farming and vermicomposting along with practical field applications
				CO4	This course will help students understanding the role of chemicals in deterioration of physical, chemical and biological characteristics of soil and its main focus is on protection of environment.
6	Gardening and Floriculture	BOTA 204	Skill Enhancement Course (SEC) Second Year	CO1	The students will enhance their skills in gardening operations such as soil preparation, sterilization , planting,mulching etc.
				CO2	It provides the knowledge about the garden designs, principles and types.
				CO3	It provides the knowledge about the garden designs, principles and types.
				CO4	It helps the students in understanding commercial floriculture and also post harvest management of flower crops.
7	Economoc Botany and Biotechnology	BOTA 301	Discipline Specific Elective Course (DSE) Third Year	CO1	The course pertains to importance of cereals, pulses, beverages, oils and sugar, fiber yielding and medicinal plants.
				CO2	This helps in understanding the botanical characteristics, cultivation practices and uses of these plant products.
				CO3	This course also acquaint the students about the basic knowledge of plant tissue culture techniques and their applications in agriculture, horticulture and forestry.

				CO4	The students learn about the recombinant DNA techniques, gene transfer techniques and their applications in development of useful transgenic plants.
				CO5	It provides knowledge about the various biotechnological techniques such as Agarose Electrophoresis, Blotting techniques, DNA fingerprinting, DNA sequencing, PCR and RTPCR, ELISA and also human gene therapy.
8	Analytical Techniques in Plant Sciences	BOTA 302	Discipline Specific Elective Course (DSE) Third Year	CO1	It helps in understanding the various techniques such as imaging and other related techniques.
				CO2	The students learn about cell fractionation, spectrophotometry and chromatography.
				CO3	It imparts knowledge about uses of radioisotopes and knowledge of characterization of proteins and nucleic acids.
				CO4	It also helps in understanding the basic concept of biostatistics.
9	Cell and Molecular biology	BOTA 303	Discipline Specific Elective Course (DSE) Third Year	CO1	The paper focuses on the cell and knowledge about structure of various cellular organelles.
				CO2	It helps to understand the organisation of cell membrane and cell wall in plants.
				CO3	It also provides knowledge about the molecular biology of genes and phenomenon of replication and transcription.
				CO4	Gain an understanding of genetic material and regulation of gene expression in prokaryotes and eukaryotes.
10	Bioinformatics	BOTA 304	Discipline Specific Elective Course (DSE) Third Year	CO1	The students will be able to understand the basic concepts, aim and scope of bioinformatics.
				CO2	It helps to impart knowledge about databases, biological sequence databases.
				CO3	Students will gain knowledge about sequence alignments.
				CO4	Gain knowledge about molecular Phylogeny and applications of bioinformatics in drug discovery, drug designs and in crop improvements.
11	Genetics and Plant Breeding	BOTA 305	Discipline Specific Elective Course (DSE) Third Year	CO1	This course Focuses on laws of inheritance, phenomenon of linkage, crossing over, mutations and chromosome aberrations.
				CO2	The students will learn about the breeding systems and modes of reproduction in plants.
				CO3	The course also make students familiar with centre of origin and domestication of crop plants, genetic basis of inbreeding depressions and heterosis.
				CO4	It helps to understand role of biotechnology in crop improvement.
12	Medicinal Botany and Ethnobotany	BOTA 306	Skill Enhancement Course (SEC) Third Year	CO1	The course introduces the basic concepts in Ethnobotany and role of tribal people in conservation of plant biodiversity.
				CO2	It helps in understanding the importance of ethnobotany in modern medicines and role of ethnic groups in protection of plant genetic resources.
				CO3	Students will learn research methodologies in Ethnobotanical studies.
				CO4	It provides knowledge about the legal aspects related to Ethnobotany.
				CO5	It also helps to understand about biopiracy and Intellectual Property Rights.
13	Mushroom Cultivation Technology	BOTA 307	Skill Enhancement Course (SEC) Third Year	CO1	The students will enhance their skills in cultivation technology and cultivation practices of edible mushrooms.
				CO2	It gives knowledge about the nutritional and medicinal value of mushrooms.
				CO3	Students will be able to learn storage methods and different food preparations using mushrooms.
				CO4	It helps to understand the diseases and pests of mushrooms.