



TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE (WOMEN)
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Department of Botany
Programme Outcomes,
Programme Specific Outcomes
&
Course Outcomes.

Programme Outcomes

PROGRAMME	PROGRAMME OUTCOMES(PO)
B.Sc. (Life Sciences)	<ul style="list-style-type: none">• PO1: Acquire knowledge in Life Sciences with a thrust on fundamental principles and theories related to various scientific phenomena and their relevance in day-to-day life.• PO2: Graduates attain practical knowledge through hands-on training and project experience to meet the industrial needs.• PO3: Graduates develop critical thinking skills to identify, analyse and solve problems of their core areas using modern tools.• PO4: Ability to communicate effectively the comprehended scientific data and knowledge, write effective reports, design documentation and make effective presentations• PO5: Ability to appreciate the benefits of experiential learning by inculcating good work habits, time management and self-discipline.• PO6: Ability to apply critical thinking, decision making, and reasoning skills in the process of quality education

Programme Specific Outcomes

	PROGRAMME SPECIFIC OUTCOMES (PSO)
B.Sc. (BZC)	<ul style="list-style-type: none">• PSO 1: Emphasizes the diversity in form and function of plants and animals, create an awareness of the impact of Chemistry on the environment, society, appraise role of green chemistry in environment sustainability.• PSO 2: Students will be able to pursue higher education & focuses on scientific research, and apply this knowledge in both real life and in a laboratory setting• PSO 3: The fundamental skills within the field of Biology and Chemistry are understood and hence can function effectively as professionals in the Life Science based industries.• PSO 4: This programme is vital to further increase their understanding of human health and environmental issues.• PSO 5: Students will be able to understand the fundamental theories, concepts and applications in four basic areas of research in Chemistry (Analytical, Inorganic, Physical & Organic). Develop the ability to explore new areas of research in Chemistry and allied field of Life sciences.

Course Outcomes

S.No.	Course Code	Course Title	Course Outcomes (CO)
	BS104	Paper I Microbial Diversity and Lower plants	<p>On completion of this course, the students will be able to:</p> <p>CO1: Develop understanding on the concept of microbial nutrition.</p> <p>CO2: Classify viruses based on their characteristics and structures.</p> <p>CO3: Develop critical understanding of plant diseases and their remediation.</p> <p>CO4: Examine the general characteristics of bacteria and their cell reproduction/ recombination.</p> <p>CO5: Increase the awareness and appreciation of human friendly viruses, bacteria, algae and their economic importance</p> <p>CO6: Develop critical understanding on morphology, anatomy and reproduction of • Bryophytes, Pteridophytes.</p> <p>CO7: Understanding of plant evolution and their transition to land habitat.</p> <p>CO8: Demonstrate proficiency in the experimental techniques and methods of appropriate analysis of Bryophytes, and Pteridophytes</p>

S.No.	Course Code	Course Title	Course Outcomes (CO)
	BS204	Paper-II Gymnosperms, Taxonomy of Angiosperms and Ecology	<p>On completion of this course, the students will be able to:</p> <p>CO1: Develop critical understanding on morphology, anatomy and reproduction of Gymnosperms.</p> <p>CO2: Demonstrate proficiency in the experimental techniques and methods of appropriate analysis of Gymnosperms</p> <p>CO3: Comprehend the basic concepts of plant ecology and taxonomy and botanical nomenclature</p> <p>CO4 : Analyse the characteristics of different plant</p>

			<p>communities.</p> <p>CO5: Evaluate the significance of herbarium.</p> <p>CO6: Analyse the implications of biometrics, numerical taxonomy and cladistics</p>
S.No.	Course Code	Course Title	Course Outcomes (CO)
	BS 304	Paper – III Plant Anatomy and Embryology	<p>At the end of the course the students will be able to:</p> <p>CO1: Understand the fundamental concepts of plant anatomy and embryology</p> <p>CO2: Analyze and recognize the different organs of plant and secondary growth.</p> <p>CO3: Examine the structure and functions of ecosystem.</p> <p>CO4: Evaluate the structural organization of flower and the process of pollination and fertilization.</p>
S.No	Course Code	Course Title	Course Outcomes (CO)
	BS 301	SEC – Nursery and Gardening	<p>On completion of this course the students will be able to;</p> <p>CO1: Understand the process of sowing seeds in nursery.</p> <p>CO2: List the various resources required for the development of nursery.</p> <p>CO3: Distinguish among the different forms of sowing and growing plants</p> <p>CO4: Analyse the process of Vegetative propagation.</p> <p>CO5: Appreciate the diversity of plants and selection of gardening.</p> <p>CO6: Examine the cultivation of different vegetables and growth of plants in nursery and gardening.</p>
S.No	Course Code	Course Title	Course Outcomes (CO)
	BS 404	Paper – IV – Cell Biology, Genetics and Plant Physiology	<p>On the completion of this course, the students will be able to;</p>

			<p>CO1: Identify the concept that explains chemical composition and structure of cell wall and membrane</p> <p>CO2: Compare the structure and function of cells & explain the development of cells.</p> <p>CO3: Have conceptual understanding of laws of inheritance, genetic basis of loci and alleles and their linkage.</p> <p>CO4: Comprehend the effect of chromosomal abnormalities in numerical as well as structural changes leading to genetic disorders.</p> <p>CO5: Develop critical understanding of chemical basis of genes and their interactions</p> <p>CO6: Analyse the effect of mutations on gene functions and dosage. Examine the structure, function and replication of DNA.</p> <p>CO7: Understand Water relation of plants with respect to various physiological processes.</p> <p>CO8: Explain chemical properties and deficiency symptoms in plants.</p> <p>CO9: Classify aerobic and anaerobic respiration.</p>
S.No	Course Code	Course Title	Course Outcomes (CO)
	. BS502	DSE1A: Biodiversity and conservation	<p>After the completion of this course, the learner will be able to:</p> <p>CO1: Develop understanding of the concept and scope of plant biodiversity.</p> <p>CO2: Identify the causes and implications of loss of biodiversity.</p> <p>CO3: Apply skills to manage plant biodiversity.</p> <p>CO4: Utilize various strategies for the conservation of biodiversity.</p> <p>CO5: Conceptualize the role of plants in human welfare with special reference to India</p>

S.No	Course Code	Course Title	Course Outcomes (CO)
	BS602	DSE 1B: Economic Botany	<p>CO1: Understand core concepts of Economic Botany and relate with the environment, populations, communities, and ecosystems.</p> <p>CO2: Develop critical understanding on the evolution of the concept of organization of apex new crops/varieties, importance of germplasm diversity, issues related to access and ownership.</p> <p>CO3: Develop a basic knowledge of taxonomic diversity and important families of useful plants.</p> <p>CO4: Increase the awareness and appreciation of plant products encountered in everyday life.</p> <p>CO5: Appreciate the diversity of plants and the plant products in human use.</p>